

# Depression, Anxiety and Stress Level Among Persons Deprived of Liberty, a Year after COVID-19 Pandemic: It's Implication to Jail Management

May S. Ramones\*, Arthur B. Gubia-On, Peter Paul S. Cagatao For affiliations and correspondence, see the last page.

# Abstract

This study aimed to investigate the level of depression, anxiety, and stress among persons deprived of liberty, after a year of the COVID-19 pandemic in the Municipal Bureau of Jail Management and Penology in the Province of Quirino. The descriptive, cross-sectional survey research method was used in this study. Participants in the study were persons deprived of liberty who have been imprisoned since the COVID-19 pandemic. The researcher used questionnaire to collect data. Results revealed that majority of the persons deprived of liberty (PDL) belong to age range 36-40 years old, married, having their cases investigated. In addition, the PDL have mild level of depression and anxiety and normal level of stress a year after the COVID-19 pandemic. Furthermore, the study showed that there is no significant difference in their levels of depression when the participants are grouped according to age, civil status, and classification. However, it is revealed that there is significant difference in the levels of anxiety when they are grouped according to age and there is no significant difference when they are grouped according to civil status and classification. Meanwhile, the study revealed that there is significant difference in the levels of stress when they are grouped according to age and civil status and there is no significant when grouped according to classification. Based on the results and conclusions of the study, the following recommendations are given: For the Bureau of Corrections and Penology (BJMP) to create relevant administrative internal protocols to prevent the spread of COVID-19 in prison environments, to increase mental health surveillance to help reduce the risks of developing mental diseases caused by the pandemic for the prison population, and to design necessary intervention strategies to ensure the safety and health of those deprived of liberty; For BJMP officials to formulate mental health policies that take into account the most affected people who were detained during the pandemic, as well as to design the most effective platform for providing reliable information about the pandemic and mitigating its psychological effects; For Jail Wardens to provide welfare efforts that emphasize prevention and direct intervention in order to promote long-term mental health services, provide individualized treatment plans on time, and maintain a safe and healthy jail environment; For Prison Medical Personnel to contribute to the development and improvement of prison health facilities by sustaining the quality of care for people who have been deprived of their liberty through provision of appropriate mental health programs, treatment and care, implementing strategies for health maintenance, mental health promotion, and disease prevention; For Persons Deprived of Liberty to actively participate in self-enrichment mental health activities provided by BJMP personnel in order for them to have a better understanding of their mental wellbeing and mental health needs, allowing them to have a quality of life even while incarcerated; and Future researchers should conduct additional research to shed light on the growing mental health status of people detained in Philippine jails, consider other potential factors not mentioned in this study to gain a better understanding of the mental health and life situations in the future in another pandemic context.

Keywords: Anxiety, Depression, Stress, Jail Management, COVID-19 Pandemic

# Introduction

The Coronavirus disease 2019 (COVID-19) is a mildto-severe respiratory illness (genus: Betacoronavirus). It is primarily transmitted through contact with infectious material, such as respiratory droplets, and is characterized by fever, cough, and shortness of breath. It has the potential to progress to pneumonia and respiratory failure.

COVID-19 is a new strain discovered in Wuhan, China, in 2019. The World Health Organization declared the COVID-19 outbreak a public health emergency of international concern (PHEIC), and it was declared a pandemic on March 11, 2020. COVID-19 has currently infected over 18 million people and claimed the lives of over 600,000 people worldwide (WHO, 2020).

On January 30, 2020, the first COVID-19 case was reported in Kerala, India, and by May 19, the number of cases had surpassed 100,000. By September 7, India had surpassed the United States of America as the world's second worst-affected country, with 4.2 million confirmed COVID-19 cases, and had recorded 71,642 deaths (The New York Times, 2020). To date, the virus that causes COVID-19 disease has infected 213 countries and territories worldwide, resulting in 14 million cases and 500,000 deaths (WHO, 2020).

The Covid-19 outbreak arrived in Brazil on February 26, 2020. On May 13, the country had 177,589 confirmed COVID-19 cases and 12,400 related deaths, for a fatality rate of 7.0 percent. Almost 60,000 cases were estimated a week later, one of the world's highest

virus transmission rates (Rede CoVida, 2020). As of May 18, the Ministry of Public Health in Thailand reported 3028 confirmed cases, or fewer than 50 cases per million population, and 56 deaths (Department of Disease Control, 2020).

# **Research Questions**

1. What is the demographic profile of the participants in terms of:

- 1.1 age;
- 1.2 civil status; and
- 1.3 classification?

2. What is the level of depression of the participants a year after the COVID-19 pandemic?

3. What is the level of anxiety of the participants a year after the COVID-19 pandemic?

4. What is the level of stress of the participants a year after the COVID-19 pandemic?

5. Is there a significant difference in the level of depression of the participants when they are grouped according to demographic profiles?

6. Is there a significant difference in the level of anxiety of the participants when they are grouped according to demographic profiles?

7. Is there a significant difference in the level of stress of the participants when they are grouped according to demographic profiles?

# Literature Review

# The COVID-19 Pandemic

In December 2019, Wuhan, a city in China's Hubei Province, became the epicenter of the coronavirus disease 2019 (COVID-19), which was caused by the severe acute respiratory syndrome coronavirus 2 (SAR-CoV-2) (Wang et al., 2020). The coronavirus disease 2019 is thought to have originated in late December 2019 at a seafood wholesale market, and the number of cases has since increased exponentially within and beyond Wuhan, spreading widely around the world (Ho et al., 2020).

COVID-19 is a coronavirus-based infectious disease. Coronaviruses (CoV) are a large family of viruses that cause illnesses ranging from the common cold to lifethreatening diseases. They include fever, dry cough, shortness of breath and difficulty breathing, tiredness with aches and pains, nasal congestion, runny nose, sore throat, or diarrhea (WHO.2020a). According to WHO (2020b), this virus had reached 202 countries, areas, or territories as of March 31, 2020, with 693,224 confirmed cases and 33,391 deaths. In another report of the World Health Organization (WHO, 2021), the global cumulative number of cases has reached 108.2 million, with over 2.3 million deaths since the pandemic began. The first wave of COVID-19 in Mexico occurred from March to July 2020, and there were 2 million cases as of February 2021 (Ministry of Health of Mexico, 2021).

Due to the widespread and disruptive effects of COVID-19, various countries around the world have taken various prevention and strict disease control measures, such as locking down their population for several weeks to limit virus transmission, closing and suspending transportation, avoiding public gatherings, and even holding various public service works for business and industry. More than 3 billion people worldwide were abruptly confined to their homes and forced to deal with major changes in their daily lives, including work, education for their children, and much more (Alleaume et al., 2021).

Furthermore, other countries implemented a number of measures to break the chain of infection and control the pandemic, including local and international travel bans, bans on large religious gatherings, suspension of public transportation, closure of schools and universities, social distancing, stay-at-home orders, and curfews (Khatatbeh, 2020). These limitations, combined with the disease's erratic course, can have a significant impact on mental health. People are scared, worried, and stressed (Lancet, 2020). As a result, experts have expressed concern about COVID-19's potential psychological impact (Hao et al., 2020). To limit the dangers and repercussions of the COVID-19 pandemic, the local government has implemented a number of hard public health measures, such as mandatory quarantines for those coming from overseas, work-from-home arrangements, school suspensions, and the shutdown of non-essential services (Choi et al., 2020)

# COVID-19 and Mental Health

The COVID-19 pandemic is a national and international public health emergency. According to Liu et al. (2020), during the COVID-19 epidemic, emphasis should be made to public psychological stress, particularly in persons who appeared to be at risk of experiencing psychiatric difficulties. Furthermore, disinformation about the current pandemic, particularly on social media, may have an impact on people's mental health, including anxiety and sadness (Mamun & Griffiths, 2020). Several studies have discovered a link between crises and the onset of mental diseases such as melancholy, anxiety, and stress (LeMoult et al., 2020).

While the world's authorities appear to be focusing on the infectious side of the pandemic, an increase in mental health disorders has been reported (Brooks, et al., 2020; Holmes, et al., 2020). In the midst of this ongoing health crisis, people suffering from emotional, behavioral, and psychiatric disorders outnumber those suffering from COVID-19. The emotional stress associated with the current circumstance has the ability to aggravate previous psychiatric illnesses or to induce their symptomatology (Yao et al., 2020), or it has the potential to lead to grave psychological consequences such as suicide (Mamun et al, 2020). In contrast, according to a survey conducted in the United Kingdom, the fear of getting COVID-19 does not appear to be as strong as fears about the psychological and social impact of the pandemic (Mental Health COVID-19, 2020).

An individual's general mental health well-being may suffer as a result of infection or the death of family and friends (Ahmed et al., 2020). Patients who are confined or suspected of having COVID-19 may sense fear, but those who are quarantined may experience boredom, loneliness, and rage (Xiang et al., 2020). Overwhelming severe mental pain caused by the epidemic and lockdowns has even led to the suicide of the most susceptible persons (Mamum & Griffiths, 2020; Miller, 2020).

The COVID-19 virus, according to Televi (2020), has impacted the physical health of millions of people globally and is projected to cause mental health problems. The fear of becoming ill, the loss of a loved one, and the sense of social isolation during the COVID-19 pandemic heightened alertness for prospective dangers, which may have affected the formation of anxiety symptoms (Hawkley & Cacioppo, 2011).

Anxiety symptoms can become chronic as a result of genetic predisposition, persistent adversity, and a lack of treatment, leading to depression or other mental diseases (Craske et al., 2017). Anxiety can also trigger depressive symptoms by creating persistent anxieties, pessimistic expectancies, and thoughts of death (Rossi et al., 2020).

# **COVID-19 and Depression, Anxiety and Stress**

With the novel coronavirus wreaking havoc on the planet, there were many unknowns about the disease, including the likelihood of a catastrophic conclusion. There have been reports of anguish, worry, and sadness in the general public (Wang et al., 2020a;

Rajkumar, 2020b). Salari et al. (2020) conducted a systematic review and meta-analysis of the general population in Asia and Europe and discovered that the prevalence of stress was 29.6 percent (95 percent confidence interval, 24.3-35.4), anxiety was 31.9

percent (95 percent confidence interval, 27.5-36.7), and depression was 33.7 percent (95 percent confidence interval ,27.5-40.0).

The COVID-19 pandemic may exacerbate or induce psychological illnesses such as anxiety, depression, and stress (Dubey et al., 2020; Islam et al., 2020). A nationwide survey in China with over 52 thousand participants found that 53.8 percent of respondents rated the psychological impact of the outbreak as moderate or severe; 16.5 percent reported moderate to severe depressive symptoms; and 28.8 percent reported moderate to severe anxiety symptoms (Qiu et al, 2020). Wang et al, (2020) found out that the psychological impact of the epidemic was regarded as moderate or severe by 53.8 percent of responders; 16.5 percent reported moderate to severe depressive symptoms; 28.8 percent reported moderate to severe depressed symptoms; and 8.1 percent expressed moderate to severe stress levels.

During the COVID-19 pandemic, emerging psychiatric illnesses and mental well-being were identified as research topics (Tan et al., 2020). According to a recent systematic study, relatively significant rates of depression, anxiety, and stress were recorded in the general population worldwide during the COVID-19 pandemic (Xiong, et al., 2020).

In fact, studies assessing the immediate psychological impacts and associated factors during the COVID-19 outbreak in China's general population found that 28.88 percent of respondents had rates corresponding to moderate to severe anxiety symptoms, and 6.5 percent had rates corresponding to moderate to severe depressive symptoms (Wang et al., 2019).

According to the study conducted by the World Health Organization (2017), the Brazilian population had one of the highest prevalence of anxiety (9.3 percent) and depression disorders (5.8 percent) when compared to the rest of the world, especially when compared to industrialized countries. Feder et al, 2021) discovered a significant rise in anxiety, from 3.9 percent to 29.1 percent, and depression symptoms, from 4.5 percent to 37.8 percent, in a retrospective cohort research aiming at evaluating the incidence of depression and anxiety symptoms before and during the COVID-19 pandemic.

COVID-19 may also have harmful psychological consequences, according to recent literature studies.

Anxiety, sadness, self-harm, and suicidal ideation were found to be highly related with social isolation (Matthews et al., 2019). Boredom, frustrations, fears of getting the infection, a loss of independence, and concerns for family and friends are just a few of the variables that could have an impact on mental health during a pandemic (Brooks, et al., 2020). According to a recent study conducted during the COVID-19 outbreak in India, one-fifth of adults suffer from melancholy and stress, and one-fourth suffer from anxiety (Saikarthik et al., 2020).

# **COVID-19 and Prison**

The scientific community does not appear to have properly investigated the vulnerability of the prison population in the COVID-19 pandemic (Hewson et al., 2020). Furthermore, as a result of the COVID-19 pandemic, these individuals have experienced less social connection with other detainees and outside visitors, notably their families, as well as the suspension of jury trials and delays in court hearings and occupational prison programs According to this scenario, inmates are more prone to experience wrath, despair, anxiety, irritability, frustrations, paranoia, fear of contamination, exacerbation of preexisting mental disease, and suicidal behavior (Fovet et.al, 2020; Tozzo et.al, 2020).

It should not be overlooked that psychological care must be offered not only to affected persons in the general population, but also to vulnerable groups such as people in asylum and detention centers such as jails (Liebrenz et al., 2020).

The right to health is an internationally recognized human right, according to the United Nations Committee on Economic, Social, and Cultural Rights (2000). It has emphasized that the right to health is an inclusive right that includes not only timely and appropriate health care but also underlying health determinants such as access to adequate sanitation, healthy occupational and environmental conditions, and access to health-related education and information.

People in correctional facilities are particularly vulnerable to the COVID-19 epidemic. During a pandemic, the incarcerated population faces numerous vulnerabilities, including high incidence of mental disorders (Hawks et.al, 2020). Evidence suggests that such disorders may render people more sensitive not just to physical symptoms like headaches and sore throats (Chew et al., 2020), but also to mental health burdens like anxiety, sadness, and stress (Brooks et al., 2020).

While an infected individual infects another two or three persons in a three-person community, the conditions of confinement cause an infected person to infect up to ten people. According to this estimate, a cell with 150 people detained for 14 days would have 67 percent of its inhabitants polluted, putting these people at an increased risk of getting severe COVID-19 symptoms (Sanchez et al., 2020).

According to the media, the Chinese government responded to the outbreak among convicts by closing impacted jails, restricting commodities transit, testing inmates who had contact with diagnosed wardens, and establishing a committee to investigate the virus's spread among detained individuals (Caixing, 2019). However, it has been documented that imprisonment raises vulnerabilities to chronic medical disorders (Wilper et al., 2009), erodes living and cognitive skills (Wolff et al., 2011), and worsens mental ill health (Fazel & Danesh, 2002), which may be compounded further by the stress of imprisonment (Beynon & Drew, 2011).

Last March 24, 2020, the chairs of ten United Nations Human Rights Treaty Bodies (2020) called for a human rights approach in combating COVID-19, urging global leaders to ensure human rights are respected when governments plan measures to combat the public health threat posed by the epidemic and ensure access to healthcare for all who need it, without discrimination and with special attention paid to the vulnerable, including the elderly, individuals with disabilities, minorities, indigenous peoples, refugees, migrants, and persons deprived of their liberty.

Cahapay (2020) revealed that the population that has grown vulnerable, especially in countries with a congested penal system like the Philippines, is the group of persons deprived of liberty (PDLs). As legally defined in the Revised Implementing Rules and Regulations, according to Section 23 of Republic Act No.10575, otherwise known as the "The Bureau of Corrections Act of 2013," persons deprived of liberty refer to "detainee, inmate, or prisoner, or other person under confinement or custody in any other manner."

According to McCarthy (2020), the Philippine correctional system is one of the most congested in the world. According to the data published in the World Prison Brief (2020), the country's prison population is rising. In 2012, the overall prison population was 106,323, with a prison population rate of 111; by 2016, the total prison population had risen to 142,168, with a jail population rate of 140; and by 2019, the entire prison population had risen to 215,000, with a prison

population rate of 200. (Cabrera & Nonato, 2020).

With the COVID-19 pandemic, visits had been restricted as the virus spread. The jail's entry point has already been controlled with screening using thermal temperature guns. All visitors were required to wash their hands before entering the jail, and sanitizers were available at the entrance to each subsequent facility on the grounds. Mobility within the prison had already been restricted, and a complete track of all moves was already kept (Ayyaz et al., 2020).

As of June 2020, more than 700 convicts had tested positive, and given the "locked away nature of their illness, with a lack of resources and non-allegiance to minimum health standards," the inmates are hidden victims of the COVID-19 epidemic. The causes of concealed health concerns can frequently lead to complex mental difficulties (Kahambing, 2020).

#### Mental Health and Persons Deprived of Liberty

The pandemic of coronavirus disease 2019 (COVID-19) poses significant challenges to global health and social care systems. Mental health services have encountered service delivery constraints, putting already vulnerable people at risk of worsening (Kothari, et al., 2020).

According to Pedrosa et al. (2020), the COVID-19 pandemic poses new problems to humans. Not only does the virus transmission and illness mortality affect vulnerable groups, but it also has an emotional, behavioral, and psychological influence on the population. Containment measures such as quarantine, social isolation, and social separation may influence population behavior and contribute to psychological problems. The pandemic itself causes a number of emotional and psychological problems like fear, worry, sadness, and suicide ideation.

The World Health Organization (WHO) acknowledged in May 2020 that the COVID-19 pandemic had a significant influence on the mental health of many social segments. As a result, it highlights the importance of incorporating mental health assistance as a component in national pandemic coping efforts, given that there is no health without mental health (Organizacao Mundial da Saude, 2020).

Mental health problems affect the entire community, and no one group is immune to mental illnesses (Slade et al., 2007). Prisons are an essential component of the worldwide public health response to COVID-19. As a result, in order to avoid negative repercussions for people in jail, the reaction to COVID-19 must take into account the accompanying mental health concerns (Stewart, 2020). According to Blaauw and Van Marle (2007), it is critical to ensure that all persons detained have their most fundamental needs and human rights satisfied, including their mental health well-being.

Furthermore, World Health Organization (2002), declared that mental health issues are one of the top causes of disability globally. Severe mental health issues interfere with people's emotional, cognitive, and social capacities, which can lead to decreased productivity (Slade et.al. 2007). Mental disorders account for 11% of the total disease burden in Ethiopia (Abdulahi et al., 2001). These disorders are very common among prison populations (Brinded et al., 2001).

Under normal conditions, the psychological care of inmates is already a big burden for many health-care systems; a problem that becomes even more apparent in times of crisis, as is currently being observed. Difficulties develop at several levels and influence incarcerated individuals (Chen, et al., 2020). According to Nurse et al. (2003), persons deprived of liberty's mental health suffers as a result of being locked away with minimal activity or mental stimulation, as well as the prison atmosphere.

According to the incidence of mental disorders among prisoners in Western countries, one out of every seven prisoners suffer from some form of psychiatric disorder, with depression being the most common (Fazel, and Danesh, 2002). In the 24-country study,

10.20 percent of male convicts and 14.1 percent of female prisoners were depressed (Fazel & Seewald, 2012).

In the United States (US), around 23% of state prisoners and 30% of jail inmates were found to be depressed (James & Glaze, 2006) According to one study from Sub-Saharan Africa, the prevalence of depression among convicts is 42.2 percent, with lower educational status and singles being the most afflicted groups (Fatoye, et al., 2006).

# Depression, Anxiety and Stress and Persons Deprived of Liberty

A growing number of studies conducted around the world indicate that the COVID-19 pandemic has resulted in higher levels of depression in the general population (Novoticol et al., 2020) Depressive disorders are the biggest cause of worldwide disease burden, according to the World Health Organization (WHO) (WHO, 2001). Statistical data on the psychological impacts of the COVID-19 pandemic show a rise in psychological discomfort (stress, dread, and anxiety) (Droit-Volet et.al, 2020).

# Depression

Depression is an emotional state that is marked by feelings of low self-worth or guilt and a reduced ability to enjoy life. A person who is depressed usually experiences several of the following symptoms: feelings of sadness, hopelessness, or pessimism; lowered self-esteem and heightened self-depreciation; a decrease or loss of ability to take pleasure in ordinary activities; reduced energy and vitality; slowness of thought or action; loss of appetite; and disturbed sleep or insomnia (Encyclopedia Britannica, 2021).

Depressed mood, loss of interest or pleasure, decreased energy, feelings of guilt or low self-worth, disturbed sleep or appetite, poor concentration, difficulty thinking and making decisions are all symptoms of depression. Mild to moderate depressed moods are more common than severe depression (Bilal & Saeed, 2011). Fazel and Danesh (2002) discovered an average frequency of 10% serious depression among male prisoners and 12% among female prisoners, with variances depending on the prisoner's status (remand or sentenced). According to Khan et al. (2012), the incidence of depression among female convicts is higher in middle-aged and married women. Furthermore, their research found that female inmates with four or more children who live in cities have a higher risk of depression than those who live in rural locations.

In the study of Abdu et al. (2018), it was indicated that the prevalence of depression among convicts is extremely high. Having a family history of mental illness, having chronic physical illness, believing life is difficult, and having a lack of social support were discovered to have an impact on the occurrence of depression.

Shrestha et al. (2017) discovered a significant frequency of depression among Nepalese convicts in their study. The findings indicate that immediate attention is required to treat convicts' mental health problems through thorough diagnosis and management, as well as the utilization of rehabilitation programs to assure the continuation of psychiatric care following release. These initiatives have the potential to further reduce recidivism while also protecting individuals, families, and the community.

In a comparison of depression among incarcerated men and women, it was discovered that the occurrence of depression was around twice as high among women, and that there are disparities in characteristics related with depression between men and women (Santos et al., 2017).

### Anxiety

Anxiety is a typical occurrence in daily life. Anxiety about certain things is reasonable and necessary for adaptation and survival. However, the level of anxiety that some people experience can be extreme, affecting their functioning abilities and even becoming debilitating (Dadi et al., 2016).

Anxiety can occur in response to seemingly harmless conditions, or it can be the result of subjective, internal emotional conflicts, the reasons of which may be obscure to the individual (Encyclopedia Britannica, 2015) Prisoners on trial experience anxiety as a result of their sudden insecurity about the future, isolation from their known environment, and the shock of jail.

Anxiety is intimately linked to depression, therefore depressed persons are more anxious (Ballenger et al., 2001). They are overcome with grief, fatigue, and a loss of interest in activities (Santini et al., 2015). The prevalence of psychotic disorders in European jails is roughly 5%, with depressive or anxiety disorders at around 25%. (Blaauw & Kerkhof, 2000).

Anxiety and eventually depression are major issues, and psychological disturbance in inmates' lives can develop to more serious mental disease if ignored. Furthermore, increased stress and untreated anxiety can lead to more significant mental health issues (Alshammart, 2019).

Anxiety and anxiety-related disorders were extremely common among convicts (27 percent and 91 percent, respectively). These manifest as disturbed sleep (Nesset et al., 2011), overthinking, and emotional states (Wolff, et al., 2011). In Birmingham (2003), 36% of all convicts examined had an anxiety disorder in the 12 months preceding the interview.

The prevalence of anxiety disorder was comparable in the receiving and sentencing groups (38 percent versus 33 percent) and much greater in women than males (55 percent versus 32 percent). He went on to say that women were more likely than men to suffer from anxiety disorders. Furthermore, prisoners with generalized anxiety had higher levels of health worry. As a result, people are more likely to confuse normal sentiments with COVID-19 symptoms, causing more anxiety and suffering (Dubey et.al, 2020). According to Dadi et al. (2016), more than one-third of convicts suffer from anxiety disorder. The likelihood of anxiousness was 2.49 times higher among convicts who reported having a miserable life before being imprisoned. This could be because their incarceration added to the stress in their lives, or because their anxiety symptoms had been there for a long time. Current smokers had a 2.6-fold increase in anxiety.

#### Stress

Selye (as cited by Convocar et al., 2020) defined stress as a mental health issue related with a variety of physical and mental diseases, including depression; a non-specific biological experience resulting from stressful conditions. The loss of communication with family and friends outside the jail, as well as the lack of personal choice within the prison environment, would be substantial sources of stress for certain people deprived of their liberty (Shivani, 2013)

Mental stress is the most common environmental risk factor for psychiatric illnesses, and continuous sustained stress can raise the likelihood of depression and other mental disorders (Zhu, et al., 2020). Fears, anxieties, and uncertainties, particularly in isolated patients, might lead to a rise in stress-related disorders (Duan & Zhu, 2020).

A modest level of stress is a typical adaptation to daily challenges; nevertheless, severe levels indicate psychological anguish, with varying physical and emotional responses depending on the stage (Men, 2003). Indeed, suffering from acute or chronic stress in a prison setting is closely linked to depression, is more common among new convicts, and makes them more prone to suicidal ideation (Mazlan, 2014).

Several studies have revealed that depressive illnesses are more prevalent in prison than in the general community. Globally, around 450 million people suffer from mental or behavioral illnesses (WHO, 2010). This disorder is extremely common in prison populations (Brinded, 2001). According to the WHO (2008), at least 1 million (11%) of the 9 million prisoners worldwide suffer from serious mental diseases, with sadness and anxiety being the most common. A systematic assessment of 23,000 prisoners from 62 surveys on significant mental diseases found that 3.7 percent of men had psychotic illness and 10% had major depression. According to the findings of Tee et al. (2020), 16.3 percent of respondents rated the psychological impact of the outbreak as moderate-tosevere; 16.9 percent reported moderate-to-severe depressive symptoms; 28.8 percent reported moderateto-severe anxiety levels; and 13.4 percent reported moderate-to-severe stress levels.

Hao et al. (2020) used several scales to assess the psychological impact of the COVID-19 pandemic in China on 76 psychiatric patients (with major depressive disorder, anxiety disorders, and mixed anxiety and depressive disorder patients) and 109 healthy controls, the patients had the worst outcomes on almost all variables dealing with depression, anxiety, and stress. In terms of other mental symptoms mentioned in the survey, the patients expressed greater concerns about their physical health, more moderate to severe anger and impulsivity, and more suicide ideation.

Bathelemy et al. (2020) discovered that the COVID-19 pandemic issue has placed a severe burden on the physical and psychological well-being of prisoners. Crisis situations, such as the present epidemic, can elicit exceptional emotional and behavioral responses in prisoners. Disengagement from home and the use of inadequate coping skills might exacerbate the heightened stress levels during important life events. Adopting appropriate coping strategies and providing oneself with the necessary coping and stress management skills may help to reduce the related high levels of felt stress and anxiety.

Alleume et al. (2020) stated that during a pandemic, public health officials should pay more attention to individual requirements for psychological assistance. Furthermore, their research revealed that healthcare practitioners must be prepared to deal with new needs of a certain community. Efforts should be made for persons who have anxiety or depression symptoms but do not feel the need for help, as well as for those who have no anxiety or depressed symptoms but nonetheless report needing psychological care.

According to Majundar and Acharya (2016), prison inmates are at a significant risk for depression, anxiety, and stress. The psychological impact of incarceration might differ from person to person and over time. At the very least, incarceration is terrible, and those who are imprisoned suffer from mental health issues. The findings suggest that inmates should be provided with professional and psychological help in order to reduce the likelihood of reoffending when they return to the community.

Choi et al. (2020) discovered that COVID-19 had a significant impact on people's mental health. During the COVID-19 pandemic, 19% of respondents experienced depression and 14% experienced anxiety. Furthermore, persons who were concerned about

becoming infected with COVID-19 and those who were more concerned about not being able to work from home had poorer mental health. One policy conclusion of the research is that governments should give psychological support to citizens during a pandemic, such as developing brief, home-based psychological therapies to mitigate the negative effects of COVID-19 on mental health.

Passos et al. (2020) revealed that the prevalence of mental illness was much greater than pre-COVID-19 levels in both Portugal and Brazil. Anxiety was present in 71.3 percent of the respondents (moderate anxiety was present in 43.1 percent), depression was present in 24.7 percent of the respondents, and 23.8 percent of the respondents reported both depression and anxiety. The authors urge that governments adopt and strengthen mental health public policies as part of their reaction to the COVID-19 pandemic, along with a commitment to support and care for afflicted persons. Furthermore, mental health as part of universal health care, mental health services must be extended and extensively supported, and mental health practitioners must be aware about the risk factors and protective factors of mental disorders and be able to give inperson or virtual counseling or therapy.

According to Zakaout et al (2020), non-Saudi participants had greater mental health prevalence rates than Saudi participants, such as 50.74 percent vs.

30.40 percent for depression, 34.23 percent vs. 13.51 percent for anxiety, and 59.70 percent vs. 27.70 percent for stress. Approximately 55.8 percent of individuals believed that significant media coverage of COVID-19 new caused increased mental anguish. They urge that special mental health care programs be developed to address the psychological concerns associated with the COVID-19 pandemic. These programs can use social media and the internet as powerful methods to reach out to certain populations in an efficient and successful manner.

Alemayehu et al. (2019) discovered a high level of depression among inmates in their study. Prisoners with children, those who were unsatisfied with their overall health, and those condemned for more than a year had higher rates of depression than their peers. As a result, programs that reinforce effective coping techniques, improve prisoners' close relationships with their families, and promote satisfaction with their overall health are likely to improve inmates' psychological well-being.

# The Criminal Justice System in the Philippines

The Philippines abides by the provisions of the United Nations Standard Minimum Rules for the Treatment of Prisoners and the United Nations Standard Minimum Rules for Non-Custodial Measures (the Tokyo Convention), as well as other international human rights instruments that define and guarantee inmates' rights. Article II (Declaration of Principles and State Policies), Article III (Bill of Rights), and Article XIII of the Philippine Constitution previously had some of these clauses (Social Justice and human Rights).

The Philippines' Criminal Justice System recognizes the importance of rehabilitating and reintegrating condemned offenders into society. Correction, as one of the foundations of the Philippine Criminal Justice System (PCIS), has implemented a variety of rehabilitation programs, including the following: a) Moral and Spiritual Program; b) Education and Training Program; c) Work and Livelihood Program; d) Sports and Recreation Program; e) Health and Welfare Program; and f) Behavior Modification Program.

The Philippine Corrections System is made up of institutions from the government, civil society, and the private sector that are involved in the incarceration, correction, and restoration of people who have been charged with and/or convicted of delinquent conduct or crimes. The Philippine Correctional System is overseen by three primary government agencies: the Department of Justice (DOJ), the Department of Social Welfare and Development (DSWD), and the Department of Interior and Local Government (DILG). The Department of Justice manages national prisons through the Bureau of Corrections, administers the parole and probation system through the Parole and Probation Administration, and helps the President in granting executive clemency through the Board of Pardons and Parole. Through the Bureau of Child and Youth Welfare, the DSWD monitors regional rehabilitation centers for young offenders. Through the provincial governments and the Bureau of Jail Management and Penology, the DILG regulates province, district, city, and municipal jails.

# The Bureau of Jail Management and Penology

The Bureau of Jail Management and Penology was established on January 2, 1991, by Republic Act 6975, to replace the defunct Philippine Constabulary Integrated National Police's Jail Management and Penology Service. BJMP envisions itself as a vibrant institution known for its long-term humane care and development of inmates. It is a branch of the Department of Interior and Local Government (DILG). The BJMP has authority over all district, city, and municipal jails. As such, it must ensure the establishment of secure, clean, and adequately equipped sanitary facilities, as well as the provision of quality services for the custody, safekeeping, rehabilitation, and development of inmates, any fugitive from justice, or person detained awaiting or undergoing investigation or trial, and/or transfer to the National Penitentiary, and/or violent mentally ill person who, pending transfer to a mental hospital, endangers himself/herself or the safety of others, as confirmed by the appropriate medical or health authority.

In accordance with its mission, the Bureau strives to perform the following functions: (a) to regularly enhance and upgrade organizational capability, thereby keeping all BJMP personnel up to date on all advancements in law enforcement, resulting in greater crime solution efficiency and a lower inmate population; (b) to put in place strict security measures to keep convicts under control; (c) to meet inmates' basic necessities; and (d) to carry out rehabilitative activities.

The Bureau's broad objectives are as follows: (a) to improve offenders' living conditions in accordance with accepted United Nations standards; (b) to improve offenders' safekeeping, rehabilitation, and development in preparation for their eventual reintegration into society upon release; and (c) to professionalize jail services. A person accused of violating or transgressing laws and ordinances enacted by competent authorities in the Philippines is referred to as an offender.

There is a distinction in the Philippines between a "jail" and a "prison." A jail is a site of imprisonment for inmates who are under investigation, on trial, or Provincial serving short-term sentences. The Government and the Bureau of Jail Management and Penology oversee and monitor provincial jails, and the Bureau of Jail Management and Penology supervise district, city and municipal jails. The term "prison" refers to the national prisons or penitentiaries controlled and supervised by the Bureau of Corrections, a Department of Justice entity. An inmate is a general phrase for a prisoner or detainee. A prisoner is an inmate who has been convicted by final judgment. A detainee is an inmate who is being investigated/tried or who is awaiting final judgment.

A district jail, led by a district warden, may be built in big cities or grouped communities. A jail warden is a person in charge of the overall operational and administrative administration of the institution. A district jail is a facility or site of detention for inmates from a city or group of municipalities who are awaiting or serving a sentence of one (1) day to three (3) years.

The BJMP operates and maintains city and municipal jails, which are each led by a city or municipal warden, depending on the situation. A city jail is a facility of incarceration for inmates who have been sentenced to a term of imprisonment ranging from one (1) day to three (3) years. A municipal jail is a facility or a place of incarceration for persons sentenced to a period of imprisonment of no more than six (6) months (Sections 1-17 of the BJMP Manual, 2015).

# Methodology

# **Research Design**

The descriptive, cross-sectional survey research method was used in this study. Kumar (2014) defines descriptive research as systematically describing a situation, problem, phenomenon, service, or program, or providing information, or describing an attitude toward an issue.

According to Eduardo (2018), a descriptive method is a purposeful process of gathering, analyzing, classifying, and tabulating data about current conditions, practices, beliefs, processes, trends, and cause – effect relationships, and then making adequate and accurate interpretations about such data with or without the assistance of statistical methods.

This method is appropriate because the goal of the study is to describe the level of depression, anxiety, and stress among people who have been imprisoned for a year following the COVID-19 pandemic.

# **Study Site and Participants**

The research was carried out at the Bureau of Jail Management and Penology in the Province of Quirino. Participants in the study are persons deprived of liberty who have been imprisoned since the COVID-19 pandemic.

# Population, Sample and Sampling Method

As of May 20, 2021, there are 162 persons deprived of liberty incarcerated in the Bureau of Jail Management and Penology in the Province of Quirino, with the following distribution: 55 in Maddela Municipal Jail and 106 in Cabarroguis District Jail. One hundred sixty-two persons who have been deprived of their liberty were chosen as participants in the study using simple random sampling with the permission of their respective Jail Wardens.

# Instruments

A validated questionnaire was used to collect data. The questionnaire is divided into two parts. The first part elicited information about the participants' demographic profiles in terms of age, civil status, and classification. The second part is an adopted questionnaire from Lovibond and Lovibond (1995) Depression, Anxiety, and Stress Scale (DASS 21). Because the DASS-21 questionnaire is in the public domain, no permission is required to use it.

The DASS-21 is a self-administered tool that includes 21 items that are used to rate the severity of depression, anxiety, and psychological stress symptoms on a four-point scale. Each item is scored on a Likert Scale from 0 to 3, with 0 indicating that it does not apply to me at all, 1 indicating that it applies to me to some degree, 2 indicating that it applies to me to a considerable degree, and 3 indicating that it applies to me very much, or most of the time. The cumulative score of each subscale is calculated by adding all item scores and multiplying by two. As a result, each subscale's score ranges from 0 to 42, and the total score ranges from 0 to 129. A higher (lower) score indicates that the depression, anxiety, or psychological stress is more severe (less severe).

The depression scale assesses a variety of depressive syndromes such as life devaluation, self-deprecation, anhedonia, and inertia. The higher the score, the greater the level of depression, which is classified as normal (0-9), mild (10-13), moderate (14-20), and severe (21-27); scores of 28 and above indicate extremely severe depression.

The anxiety scale measures arousal, muscle effects, situational anxiety, and subjective experience of anxious effect. Scores are classified as normal (0-7), mild (8-9), moderate (10-14), and severe (15-19), with scores of 20 or more indicating extremely severe anxiety.

The stress scale is sensitive to levels of chronic nonspecific arousal. It assesses the ability to relax, nervous arousal, and being easily upset. Scores are classified as normal (0-14), mild (15-18), moderate (19-25), and severe (26-33), with scores of 34 or more indicating extremely severe. The Depression, Anxiety, and Stress Scale (DSS-21) and the calculation of scores was based on a previous Asian study (Le et al., 2019). Among Asian population the tool exhibits a reliability measure of internal consistency of a =. 86 for depression; a=.81 for anxiety; and a=.70 in the stress scale; and overall DASS-21 with a=.91 (Oei et al., 2013). The DASS-21 has been demonstrated to be a reliable and valid measure in assessing mental health in Filipinos (Cheung et. al, 2019). Furthermore, for this study the questionnaire was validated through a pilot study on persons deprived of liberty in a municipal jail outside Quirino Province.

The researcher also made use of communication letters and documentary analysis to validate the observation and strict implementation on the memorandums furnished by the Bureau of Jail Management and Penology Head Quarters and Regional Office.

# Data Gathering Procedure

Prior to collecting data, the researcher obtained permission from the Jail Warden of the Bureau of Jail Management and Penology in the Province of Quirino to conduct of the study. Permission was also sought from the City Jail Officers to distribute the survey questionnaires to the participants. A letter addressed to the participants was attached to the survey questionnaire to provide information on the purpose of the study,

Due to visitation restrictions in prison units throughout the Province of Quirino, the survey questionnaires and Informed Consent Form (ICF) were given to the Jail Warden, who delegated its administration to the prison's Health Team, in order to continue the study.

Persons deprived of liberty who were interested and willing to participate in the study filled out the questionnaire anonymously during the study period. They were instructed to respond to the instrument in one room, three at a time, with a 1.5-meter space between each participant. The administration of questionnaires began after the purpose of the study was read and the Informed Consent Form was signed.

Throughout the data collection process, the participants' autonomy, freedom, and confidentiality were respected. Following the survey, the questionnaires were collected and kept confidentially. The data gathered was only used for academic purposes.

#### **Data Analysis**

The collected data were tallied, classified and tabulated in order to achieve accurate information, and they were statistically tested in order to analyze the answers to the study's problem.

To determine participant profiles in terms of age, civil status, and classification, descriptive statistics such as simple frequency distribution and percentage were used. Means and standard deviation were used to calculate the participants' levels of depression, anxiety, and depression. The ANOVA and t-test were used to determine whether there was a significant difference in the levels of depression, anxiety, and stress among the participants based on their age, civil status, and classification.

#### **Ethical Considerations**

The study was carried out in accordance with research principles and ethics. Aside from the letter attached to the questionnaire, the participants were given a thorough explanation of the study during a briefing process prior to the start of data collection by the jail warden.

Prior to the administration of the questionnaire, the participants were asked to sign an Informed Consent Form. Persons deprived of liberty were assured of the confidentiality and informed that their participation in the study was entirely voluntary and that they could withdraw at any time without explanation.

The participants were also informed that their participation in the study has no bearing on their incarceration or eligibility for parole. To avoid the risk of a breach of confidentiality, the names of the participants were not written in the questionnaire.

The researcher assured the participants that their personal responses would not be shared with any prison personnel. Only the adviser and the researcher had access to the hard copy of the research data which was kept in secured files and folders.

# **Results and Discussion**

#### **Demographic Profile of the Participants**

**Age.** Table 1 shows the demographic profile of the participants according to their age.

Table 1. Demographic Profile of the Participants as toAge

Age Range	Frequency	Percent
20-25	18	11.19
26-30	21	13.04
31-35	15	9.32
36-40	33	20.50
41-45	26	16.15
46-50	12	7.45
51-55	19	11.80
56-60	6	3.72
61-65	11	6.83
Total	161	100

As shown in Table 1, a meager number of participants, 33 or 20.50 percent belong to age range 36-40 years old, 26 or 16.15 percent each belong to age range 41-45 years old, 21 or 13.04 percent belong to age range 26 -30 years old, 19 or 11.80 percent belong to age range 51- 55 years old, 18 or 11.19 percent belong to age range 20-25 years old, 15 or 9.32 percent belong to age range 31-35 years old, 12 or 7.45 percent belong to age range 46-50 years old and 6 or 3.72 percent belong to age range 56-60 years old. This implies that majority of the persons deprived of liberty are adults and mature individuals.

**Civil Status.** Table 2 shows the demographic profile of the participants according to their civil status.

Table 2. Demographic Profile of the Participants as toCivil Status

Civil Status	Frequency	Percent	
Single	69	42.85	
Married	83	51.56	
Widower	9	5.59	
Total	161	100	

As presented in Table 2, majority of the participants, 83 or 51.56 percent are married, 69 or 42.85 percent are single and 9 or 5.59 percent are widower. This implies that majority of the persons deprived of liberty have partners in their lives.

**Classification of Participants.** Table 3 shows demographic profile of the participants according to classification.





Table 3. Demographic	r Profile of the	Participants	as to
Classification			

Classification	Frequency	Percent
Awaiting investigation	7	4.35
Undergoing investigation/trial	126	78.26
Awaiting final judgment	28	17.39
Total	161	100

As revealed in Table 3, majority of the participants, 126 or 78.26 percent are undergoing investigation, 28 or 17.39 percent are awaiting final judgment and 7 or 4.35 percent are awaiting. This implies that majority of the person deprived of liberty are having their cases investigated/trial.

# Level of Depression of the Participants a year after COVID-19 Pandemic

Table 4 shows the level of depression of the participants a year after COVID-19 pandemic.

# Table 4. Level of Depression of the Participants a Yearafter COVID-19 Pandemic

Indicators	Mean	Description
1. I couldn't seem to experience any positive feelings at all.	0.76	Mild
2. I found it difficult to work up the initiative to do things.	0.72	Mild
3. I felt that I had nothing to look forward to.	0.78	Mild
4. I felt downhearted and blue.	1.24	Moderate
5. I was unable to become enthusiastic about anything.	0.80	Mild
6. I felt I wasn't worth much as a person.	0.76	Mild
7. I felt that life was meaningless.	0.75	Mild
Mean Total	11.62	Mild

As revealed in Table 4 indicator number 4 or "I felt downhearted and blue," had the highest mean which is 1.24 (moderate). Indicator number 5 or "I was unable to become enthusiastic about anything," had the second-highest mean which is 0.80 (mild). It was followed by indicator number 3 or "I felt that I had nothing to look forward to," which had a mean of 0.78 (mild), indicator number 1 or "I couldn't seem to experience any positive feelings at all," which had a mean of 0.76 (mild), indicator number 6 or "I felt I wasn't worth much as a person," which had a mean of 0.76 (mild), indicator number 7 or "I felt that life was meaningless," which had a mean of 0.75 (mild), and indicator number 2 or "I found it difficult to work up the initiative to do things," which had the lowest mean of 0.72 (mild). With a mean total of 11.62, this implies that people who have been deprived of liberty have a mild level of depression a year after the COVID-19 pandemic.

# Level of Anxiety of the Participants a year after COVID-19 Pandemic

Table 5 shows the level of anxiety of the participants a year after COVID-19 pandemic.

 Table 5. Level of Anxiety of the Participants a Year

 after the COVID-19 Pandemic

Indicators	Mean	Description	
1. I was aware of the dryness of my mouth.	0.42	Normal	
<ol> <li>I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion).</li> </ol>	0.45	Normal	
3. I experienced trembling (e.g., in the hands).	0.69	Moderate	
4. I was worried about situations in which I might panic and make a fool of myself.	0.93	Moderate	
5. I felt I was close to panicking.	0.80	Moderate	
6. I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat).	0.78	Moderate	
7. I felt scared without any good reason.	0.61	Mild	
Mean Total	9.36	Mild	

As shown in Table 5 indicator number 4 or "I was worried about situations in which I might panic and make a fool of myself," had the highest mean which is 0.93 (moderate). Indicator number 5 or "I felt I was close to panicking," had the second-highest mean which is 0.80 (moderate). It was followed by indicator number 6 or "I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)," which had a mean of 0.78 (moderate), indicator number 3 or "I experienced trembling (e.g., in the hands)," which had a mean of 0.69 (moderate), indicator number 7 or "I felt scared without any good reason," which had a mean of 0.61 (mild), indicator number 2 or "I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion)," which had a mean of 0.45 (normal), and indicator number 1 or "I was aware of the dryness of my mouth," which had the lowest mean of 0.42 (normal). With a mean total of 9.36, this implies that people who have been deprived of liberty have a mild level of anxiety a year after the COVID-19 pandemic.

# Level of Stress of the Participants a year after COVID-19 Pandemic

Table 6 shows the level of stress of the participants a year after COVID-19 pandemic.



# Table 6. Level of Stress of the Participants a YearAfter the COVID-19 Pandemic

Indicators	Mean	Description
1. I found it hard to wind down.	0.67	Normal
2. I tended to overreact to situations.	0.88	Normal
<ol><li>I felt that I was using a lot of nervous energy.</li></ol>	0.75	Normal
<ol><li>I found myself getting agitated.</li></ol>	0.74	Normal
5. I found it difficult to relax.	0.61	Normal
6. I was intolerant of anything that kept me from getting on with what I was doing.	0.63	Normal
7. I felt that I was rather touchy.	0.85	Normal
Mean Total	10.26	Normal

As presented in Table 6 indicator number 2 or "I tended to overreact to situations," had the highest mean which is 0.88 (normal). Indicator number 7 or "I felt that I was rather touchy," had the second-highest mean which is 0.85 (normal). It was followed by indicator number 3 or "I felt that I was using a lot of nervous energy," which had a mean of 0.75 (normal), indicator number 4 or "I found myself getting agitated," which had a mean of 0.74 (normal), indicator number 1 or "I found it hard to wind down," which had a mean of 0.67 (normal), indicator number 6 or "I was intolerant of anything that kept me from getting on with what I was doing," which had a mean of 0.63 (normal), and indicator number 5 or "I found it difficult to relax," which had the lowest mean of 0.61 (normal). With a mean total of 10.26, this means that people who have been deprived of liberty have a normal level of stress a year after the COVID 19 pandemic.

# Significant Difference in the Level of Depression and Demographic Profile of Participants

Table 7 shows the significant difference in the level of depression of participants when they are grouped according to demographic profile variables.

Table 7. Significant Difference in the Level ofDepression of Participants When Grouped Accordingto Profile Variables

		ANOV	4			
		Sum of Squares	Df	Mean Square	F	Sig.
	Between Groups	143.897	18	7.994	1.626	.061
Age	Within Groups	698.166	142	4.917		
	Total	842.062	160			
Civil Status	Between Groups	8.395	18	.466	1.402	.139
	Within Groups	47.244	142	.333		
	Total	55.640	160			
Classification	Between Groups	1.894	18	.105	.492	.958
	Within Groups	30.367	142	.214		
	Total	32.261	160			

As shown in Table 7, with regard to age, the value of F in the age variable is 1.626 which does not reach significance with a *p*-value of .061 (which is greater than the .05 alpha level). Therefore, the null hypothesis is accepted. This means that there is no statistically significant difference between the levels of depression of participants when they are grouped according to age.

With regard to civil status, the value of F in the civil status variable is 1.402 which does not reach significance with a *p*-value of .139 (which is greater than the .05 alpha level). Therefore, the null hypothesis is accepted. This means that there is no statistically significant difference between the levels of depression of participants when they are grouped according to civil status.

With regard to classification, the value of F in the classification variable is .492 which does not reach significance with a p-value of .958 (which is greater than the .05 alpha level) therefore, the null hypothesis is accepted. This means there is no statistically significant difference between the levels of depression of participants when they are grouped according to classification.

This implies that persons who have been deprived of their liberty when grouped according to their demographic profiles, such as age, civil status, and classification, have no substantial variation in their levels of depression. Hence, regardless of their demographic characteristics, they continue to suffer from mild depression after a year of the COVID-19 pandemic.

# Significant Difference in the Level of Anxiety and Demographic Profile of Participants

Table 8 shows the significant difference in the level of anxiety of participants when they are grouped according to demographic profile variables. Table 8. Significant Difference in the Level of Anxietyof Participants When Grouped According to ProfileVariables

		ANOV	4			
		Sum of Squares	Df	Mean Square	F	Sig.
	Between Groups	172.206	16	10.763	2.314	.005
Age	Within Groups	669.857	144	4.652		
	Total	842.062	160			
	Between Groups	7.098	16	.444	1.316	.195
Civil Status	Within Groups	48.541	144	.337		
	Total	55.640	160,	which i		
Classification	Between Groups	4.192	16	.262	1.344	.179
	Within Groups	28.069	144	.195		
	Total	32.261	160			

As revealed in Table 8, with regards to age, the value of F in the age variable is 2.314 which reaches significance with a *p*-value of .005 (which is less than the .05 alpha level). Therefore, the null hypothesis is rejected. This means that there is a statistically significant difference between the levels of anxiety of participants when they are grouped according to age.

With regard to civil status, the value of F in the civil status variable is 1.316 which does not reach significance with a *p*-value of .195 (which is greater than the .05 alpha level). Therefore, the null hypothesis is accepted. This means that there is no significant difference between the levels of anxiety of participants when they are grouped according to civil status.

With regard to classification, the value of F in the classification variable is 1.344 which does not reach significance with a *p*-value of .179 (which is greater than the .05 alpha level). Therefore, the null hypothesis is accepted. This means that there is no statistically significant difference between the levels of anxiety of participants when they are grouped according to classification.

This implies that when people who have been deprived of liberty are grouped based on their age, there is significant difference in their levels of anxiety, meaning their levels of anxiety vary on age. Meanwhile, when people who have been deprived of liberty are grouped according to civil status and classification, there is no significant difference in their levels of anxiety, Hence, mild anxiety persists regardless of civil status and classification a year after the COVID-19 pandemic began.

Significant Difference on the Level of Stress and Demographic Profile of Participants Table 9 shows the significant difference on the level of stress of participants when they are grouped according to demographic profile variables.

As presented in Table 9, with regard to age, the value of F in the age variable is 2.357 which reaches significance with a *p*-value of .004 (which is less than the .05 alpha level). Therefore, the null hypothesis is rejected. This means that there is a significant difference between the levels of stress of participants when they are grouped according to age.

Table 9. Significant Difference on the Level of Stressof Participants When Grouped According to ProfileVariables

		ANOV	A			
		Sum of Squares	Df	Mean Square	F	Sig.
	Between Groups	174.740	16	10.921	2.357	.004
Age	Within Groups	667.322	144	4.634		
	Total	842.062	160			
Civil Status	Between Groups	9.724	16	.608	1.906	.024
	Within Groups	45.915	144	.319		
	Total	55.640	160			
Classification	Between Groups	3.611	16	.226	1.134	.329
	Within Groups	28.650	144	.199		
	Total	32.261	160			

With regards to civil status, the value of F in the civil status variable is 1.906 which reaches significance with a *p*-value of .024 (which is less than the .05 alpha level). Therefore, the null hypothesis is rejected. This means that there is a statistically significant difference between the levels of stress of participants when they are grouped according to civil status.

With regard to classification, the value of F in the classification variable is 1.134 which does not reach significance with a *p*-value of .329 (which is greater than the .05 alpha level). Therefore, the null hypothesis is accepted. This means that there is no statistically significant difference between the levels of stress of participants when they are grouped according to classification.

This implies that when people who have been deprived of liberty are grouped based on their age and civil status, the significant difference in their levels of stress vary. Meanwhile, when people who have been deprived of liberty are grouped according to classification, there is no significant difference in their levels of stress, meaning normal stress level persists a year after the COVID-19 pandemic began regardless of classification.

# Conclusion

The purpose of this is to investigate the level of depression, anxiety, and stress among persons deprived of liberty after a year of the COVID-19 pandemic in the Municipal Bureau of Jail Management and Penology in the Province of Quirino.

According to the findings, persons deprived of liberty who were imprisoned in the Municipal Bureau of Jail Management and Penology in the Province of Quirino after a year of the COVID-19 pandemic, are between the ages of 36 and 40 years old, married and their cases are awaiting or undergoing trial.

Furthermore, the study revealed that people who have been deprived of liberty have a mild level of depression a year after the COVID-19 pandemic. The findings of the study are contrary to the study of Alemayehu et al. (2019) who discovered a high level of depression among inmates in their study. Prisoners with children, those who were unsatisfied with their overall health, and those condemned for more than a year had higher rates of depression than their peers. As a result, programs that reinforce effective coping techniques, improve prisoners' close relationships with their families, and promote satisfaction with their overall health are likely to improve inmates' psychological well-being.

The study also revealed that people who have been deprived of liberty have a mild level of anxiety a year after the COVID-19 pandemic. The result of the study is supported by the study of the following researchers: Qiu et al., (2020). When a nationwide survey in China with over 52 thousand participants found that 53.8 percent of respondents rated the psychological impact of the outbreak as moderate or severe; 16.5 percent reported moderate to severe depressive symptoms; and 28.8 percent reported moderate to severe anxiety symptoms, Wang et al., (2020) found out that the psychological impact of the epidemic was regarded as moderate or severe by 53.8 percent of responders; 16.5 percent reported moderate to severe depressive symptoms; 28.8 percent reported moderate to severe depressed symptoms; and 8.1 percent expressed moderate to severe stress levels. However, the study of Abdu et al., (2008) proved otherwise that the prevalence of depression among convicts is extremely high. Having a family history of mental illness, having

chronic physical illness, believing life is difficult, and having a lack of social support were discovered to have an impact on the occurrence of depression.

However, the study showed that people who have been deprived of liberty have a normal level of stress a year after the COVID-19 pandemic. The study is confirmed by the study of Men (2003) showing a modest level of stress is a typical adaptation to daily challenges; nevertheless, severe levels indicate psychological anguish, with varying physical and emotional responses depending on the stage.

Possible explanations for the decreased levels of depression, anxiety, and stress were because of the many BJMP Memorandums directing All Regional Directors of the Jail Bureau, Provincial Jail Administrators and Wardens to strictly implement various BJMP COVID-19 Advisories in support to the BJMP Mental Health Programs particularly such as the BJMP COVID-19 Advisory # 8 : Mental Health Support dated March 27, 2020, BJMP COVID-19 Advisory # 14: Supplemental Guide Re: Psychological Intervention Program for Personnel and PDL during and After COVID-19 Jail Nationwide Lockdown, dated April 07, 2020, BJMP COVID-19 Advisory # 22 Mental Health Strategies for Personnel Related with COVID-19 Crisis dated April 28, 2020 to name a few. The different BJMP COVID-19 Advisories encourage collaborative efforts of various individuals and Jail COVID19- Task Forces namely Jail Officers, BJMP Frontlines, and Wardens to reduce exposure to novel coronaviruses. Strategies mentioned in the Memorandums that promote sustained mental health include but not limited to the following:

In general, the BJMP has implemented an absolute lockdown in all jail facilities since March 20, 2020, restricting PDL visitation privileges while personnel are deployed on lockdown status. The lockdown is a precautionary measure to prevent the spread of COVID-19 in prisons.

Jail Officers initiated calibrated activities for Persons Deprived of Liberty (PDL) within strict security control to enforce COVID-19 protocols such as maintaining social distancing among prisoners to avoid contamination of self, others, or the environment, regular hand washing / sanitizing, wearing of face masks at all times, using hand sanitizers, respiratory (cough/sneeze) etiquette, promoting good hygiene inside the prison, cleaning and disinfecting. Similarly, the Jail Officers advised the PDL to avoid watching, reading, or listening to news that made them feel anxious or distressed, and to seek information only from reliable sources rather than rumors and misinformation. Furthermore, jail officers are encouraged to be empathetic to all those affected, to show kindness and compassion, to provide support when necessary to those who may require additional assistance, and to seek opportunities to share positive and hopeful stories of people who recovered from and experienced COVID-19.

The BJMP Frontliners attempted and used coping strategies to assist PDL with intellectual, cognitive, and psychosocial disabilities in managing their mental health and psychological well-being. For those PDL who have underlying health conditions, they ensure that they have access to any medication they are currently taking in order to avoid becoming anxious, angry, agitated, or withdrawn during the outbreak and while in quarantine. While working with the PDL, they shared simple facts about COVID-19, the risks associated with coronavirus, the measures to prevent contagion, the most recent official health advice, the effects of COVID-19 on mental health and well-being, the risk of mental health disorders, the psychological pressure generated by the pandemic, and how they can access psychosocial support and counseling programs when they are in need of assistance. Zhang et al. (2020) confirmed the findings of this study when they found that optimistic and positive thoughts and attitudes toward the spread of COVID-19 are also protective factors against depression and anxiety.

The Warden provided assistance to people affected by COVID-19 via the BJMP Mental Health Helpline, where contact numbers for BJMP Psychologists and Psychometricians in their respective Regions were activated, and welcomed PDL in need of telepsychology and tele counseling. They also handle emergency mental health and neurological complaints (such as severe anxiety or depression). They ensured the deployment of trained and qualified healthcare providers to provide social support and improve the mental health of PDL.

The Unit Welfare and Development Officer, in collaboration with the Jail Nurse, conducted stress management seminars using special information, education, and communication materials provided by the Mental Health Service team for the lockdown period.

Persons Deprived of Liberty were involved in widespread information and awareness-raising activities to ensure that they are aware of the procedures that will be implemented, why they are necessary, and how they will be carried out. PDL in isolation were monitored, but in the same way, they were given frequent information, advice, or updates on their medical status to avoid anxiety, depression, and feelings of discomfort.

PDL is allowed to communicate with any member of his immediate family via telephone or video call by schedule or appointment under close supervision and monitoring of personnel in accordance with Standard Operating Procedure No. 2011-06 or the BJMP Protocol on "E-Dalaw." However, all gadgets and equipment to be used must be properly sanitized and disinfected before and after each use. Ensured that a medical mask is worn when using a telephone and that the mask is properly disposed of.

Well-planned recreational and psychosocial activities were still permitted to reduce boredom and allow for emotional venting. Modified components of the Therapeutic Community Modality Program were observed, such as the regular shaking of hands, brotherly or sisterly embraces, and holding of hands during community singing were strictly prohibited, each static group shall consist of no more than 10 PDL, limited indoor activities, television viewing and movie time were strictly regulated, after outdoor activities such as gardening hand washing were reiterated, and sunning activity to boost the body's hydration was strongly encouraged. Congregation for religious activities is prohibited under these measures; however, PDL are permitted to conduct bible studies in small groups of no more than ten participants while observing social distancing and to pray individually.

The modified implementation of welfare and development programs supplements the BJMP COVID-19 Advisory #5, allowing the PDL to maintain a relatively normal community life while also addressing the psychological and socioeconomic effects of the absolute lockdown.

The study revealed that there is no significant difference in the mild depression levels among people who have been deprived of their liberty based on demographic profiles such as age, civil status, and classification. In effect, it means that PDL continue to suffer from mild depression after a year of the COVID-19 pandemic, regardless of their age, civil status, or classification. The results of the study corroborate with the study of Shrestha et al. (2017) in bivariate analysis. The rate of depression among inmates was not found to be associated with socio- demographic characteristics, such as age, religion, marital status, residential area, education, prior occupation and economic status. In addition, the

results of the study of Combalbert, et al. (2019) revealed low levels of perceived health and quality of life among the elderly inmates. They also showed that age was not statistically associated with most of the dimensions of perceived health on the Nottingham Health Profile (NHP), with the exception of poor mobility. By contrast, age was statistically associated with most of the dimensions of quality of life on the WHOQOL-Bref. Time spent in prison was only associated negatively with the "sleep" dimension of the NHP. One important implication is that it seems particularly important to assess the perceived health and quality of life of elderly prisoners in order to ensure their appropriate treatment and management.

According to the findings of the study, there is significant difference in the mild anxiety levels when people who have been deprived of their liberty are divided into groups based on their age. It means to say that their levels of anxiety vary with age. However, when detainees are divided into groups based on their civil status and classification, there is no significant difference in their anxiety levels, implying that mild anxiety persists a year after the COVID-19 pandemic began regardless of classification.

Surprisingly, this study found that when people who have been detained are divided into groups based on their age and civil status, there is significant difference in their levels of stress. Hence, the levels of stress vary with age and civil status. When detainees are classified, however, there is no significant difference in their stress levels, and their classification. This indicates that normal stress levels persist a year after the COVID-19 pandemic began regardless of classification.

# **Implications to Jail Management**

The coronavirus disease 2019 (COVID-19) pandemic presents substantial challenges to global health and correctional systems. Prisoners, many of whom are physically vulnerable will have understandable worries about infection, resulting in high mental health problems. According to Majundar and Acharya (2016), prison inmates are at a significant risk for depression, anxiety, and stress. The psychological impact of incarceration might differ from person to person and over time. At the very least, incarceration is terrible, and those who are imprisoned suffer from mental health issues. The findings suggest that inmates should be provided with professional and psychological help in order to reduce the likelihood of reoffending when they return to the community.

# **On Depression**

The term "depression" has become widely used in modern society. However, depression is a more nuanced topic than popular usage would suggest. For starters, not all cases of depression are alike. There are various types of depression, and each can have a different impact on one's life. Depression is graded as mild, moderate, or severe.

It's normal to feel down from time to time, but depression is a distinct condition that should be treated with caution. Depression is known for causing feelings of hopelessness that do not seem to go away, in addition to general sadness.

According to the findings of this study, the respondents' depression level is classified as mild. Mild depression entails more than just feeling down for a short period of time. Symptoms can last for days and are severe enough to interfere with daily activities.

Jail Management should address mild depression issues of persons deprived of liberty. Despite the difficulties in diagnosis, mild depression is the most easily treated. Certain lifestyle changes can help boost serotonin levels in the brain, which can aid in the treatment of depressive symptoms. Exercise on a daily basis, stick to a sleep schedule, eat a balanced diet rich in fruits and vegetables, practice yoga or meditation, and engage in stress-relieving activities are all beneficial lifestyle changes. While medical treatment may not be required, mild depression does not go away on its own. In fact, mild depression can progress to more severe forms if left untreated.

# **On Anxiety**

Anxiety has different levels, both subjectively and biologically. Some people suffer from severe, incapacitating anxiety that necessitates immediate medical attention. Some people live with moderate anxiety that has a significant impact on their lives, but they are still able to function on a daily basis. Others suffer from mild anxiety, which they can manage relatively easily but makes their lives more stressful.

Almost no one experiencing constant anxiety would describe their anxiety as "mild," and most people experiencing subjectively mild anxiety are unlikely to believe they are experiencing anxiety at all.

According to the findings of this study, the respondents' anxiety level is classified as mild. Mild anxiety is anxiety that can be managed without the use of any additional techniques. By "manageable," it does



not mean "easy to get rid of." It means one can still go about his day without feeling anxious, that he can have a social life, and that he can even enjoy hobbies and activities. He might even be optimistic about the future.

Jail Management should respond to the mild anxiety experience by the persons deprived of liberty. Simple lifestyle changes, such as regular exercise, getting enough sleep, and eating healthier, as well as counseling, should be maintained by jail administrators. These are extremely simple coping strategies for mild anxiety, but they are generally effective and may suffice for those whose anxiety is otherwise manageable.

#### **On Stress**

Stress is a physical reaction that occurs when a person's confronted with a difficult situation. When the body detects a challenge, it prepares to deal with it.

Incarceration exposes people to a great deal of stress. According to qualitative research with formerly and currently incarcerated people, the most commonly reported stressors during incarceration are interpersonal interactions that are unique to the prison environment.

According to the findings of this study, the respondents' stress level is classified as normal. Short-term stress is what most people think of when they think of stress. This happens in bursts. The heart rate, muscle tension, and blood pressure may all rise significantly at this time. One tends to recover quickly from acute stress.

Meditation and breathing exercises, talking it out, journaling, exercise, adequate sleep, social support, and laughing should all be part of jail management practices. Laughter is truly the best medicine, especially when it comes to stress.

Stressful life events, as well as the use of social support networks to cope with stress, should be addressed in the context of correctional treatments in order to reduce suicide during incarceration.

The detection, prevention, and proper treatment of mental disorders, as well as the promotion of good mental health, should be part of the prison's public health goals, and also central to good prison management. The study's findings imply that in the management of jail focus on protecting the mental health and well- being of prisoners as well as to help address the risks and challenges in the context of the

1. Prisoners' right to health is a fundamental human right recognized by numerous international instruments. The right to health encompasses the right to proper health care as mental well-being. Conditions such as overcrowded, poorly ventilated and unsanitary prisons in times of pandemic can induce depression, anxiety and stress which may develop into more serious mental disabilities, if appropriate action is not taken. Hence, the Jail Management should ensure an efficient management of mental health risks by providing inmates access to appropriate mental health treatment and care especially those with pre-existing mental health conditions such as they have been isolated, no longer have social support/ in-home assistance or have problems accessing their prescription medicines during a lockdown. People experiencing mental health problems are often less able to cope because of the multiple stressors generated by the pandemic. An increase of such experience may develop worsening mental health condition of depression and anxiety and may reduce functioning. Therefore, people of this kind should have access to assessment, treatment, and (if necessary) referral as part of the general health services available to all prisoners. The mental health services provided to prisoners should, at the very least, be on par with those provided in the community. This can be accomplished by providing mental health training to prisoners and prison health workers in the recognition and basic management of common mental health disorders, as well as establishing regular visits to prisons by community mental health teams.

2. Equivalence of health care is a principle that applies to all prisoners, who are entitled to receive the same quality of medical care that is available in the community. Therefore, the Jail Management should ensure the availability of mental health care services and psychosocial support to prisoners from range of mental health professionals including psychiatrist, psychologists, counselors, nurses and occupational therapists to provide prisoners the same access to psychotropic medication for the treatment of depression, anxiety and stress as people in the general community.

3. Provide training to all people involved in prisons including prison administrators, prison guards and health workers in the recognition and prevention of mental health issues to enhance understanding and have more specialized skills ion identifying and managing mental disorders in times of pandemic

#### situations.

4. Provide information/education to prisoners and their families on mental health issues. Jail Management are encouraged to provide information/education to prisoners and their families to better understand their emotional responses and give practical strategies on how to minimize the negative effects on their mental health and inform them as when and how to seek help when they are experiencing depression, anxiety and stress.

5. Promote high standards in prison management. The mental health of all prisoners, including those with mental health issues, will be enhanced by appropriate prison management that promotes and protects human rights. Attention to areas of sanitation, adequate foods, access to open air, pandemic health protocols, meaningful physical activity, and promotion of social networks are essential and contribute to the promotion of good mental health. It is also encouraged that prison-specific guidelines for managing epidemic at the time of pandemic should be collaboratively developed for future outbreak to include epidemiological surveillance, screening for contagious diseases, contract tracing and immunization programs.

6. Encourage inter-sect oral collaboration. Many problems and issues can be solved by bringing relevant agencies and other actors together to discuss the needs of prisoners with mental health disorders. Jail management is encouraged to initiate meeting with different stakeholders to discuss mental health in prisons and to plan an inter-sectoral response.

From the results and conclusions of the study, the following recommendations are given:

1. For the Bureau of Corrections and Penology (BJMP) to create relevant internal protocols to prevent the spread of COVID-19 in prison environments, to increase mental health surveillance to help reduce the risks of developing mental diseases caused by the pandemic for the prison population, and to design necessary intervention strategies to ensure the safety and health of those deprived of liberty.

2. For BJMP officials to formulate mental health policies that take into account the most affected people who were detained during the pandemic, as well as to design the most effective platform for providing reliable information about the pandemic and mitigating its psychological effects.

3. For Jail Wardens to provide welfare efforts that emphasize prevention and direct intervention in order

to promote long-term mental health services, provide individualized treatment plans on time, and maintain a safe and healthy jail environment.

4. For Prison Medical Personnel to contribute to the development and improvement of prison health facilities by sustaining the quality of care for people who have been deprived of their liberty through provision of appropriate mental health programs, treatment and care, implementing strategies for health maintenance, mental health promotion, and disease prevention.

5. For Persons Deprived of Liberty to actively participate in self-enrichment mental health activities provided by BJMP personnel in order for them to have a better understanding of their mental well-being and mental health needs, allowing them to have a quality of life even while incarcerated.

6. Future researchers should conduct additional research to shed light on the growing mental health status of people detained in Philippine jails, consider other potential factors not mentioned in this study to gain a better understanding of the mental health and life situations in the future in another pandemic context, increase sample size to achieve a higher goodness of fit, and use other research approaches and designs to elucidate causal perspectives.

#### References

Abdu, Z., Kabeta, T., Dube, L., Tessema, & Abera, M. (2018). Prevalence and associated factors of depression among prisoners in Jimma Town Prison, south West Ethiopia. *Hindawi Psychiatry Journal*, Article ID 5762608, 10 pages.

Abdulahi, H., Mariam., & Kebede, D. (2001). Burden of disease analysis in rural Ethiopia. *Ethiopian Medical Journal*, 39 (4), pp. 271-281.

Ahmed, M., Ahmed, O., Aibao, Z., Hanbin, S., Siyu, L. & Ahmad, A. (2020). Epidemic of COVID-19 in China and associated psychological problems. *Asian Journal Psychiatry*, 102092.

Alemayehu, F., Ambay, F., & Gutema, H. (2019). Depression and associated factors among prisoners in Bahir Dar Prison, Ethiopia. *BMC Psychiatry*, 19, 88.

Alindogan, J. (2020) Philippine jails: many inmates, staff test positive for COVID-19. *Aljazeera*.

Alleaume, C., Verger, P., & Watel, P. (2021). Psychological support in general population during the COVID-19 lockdown in France: needs and access. *PloS ONE* 16, (5), e0251707.doi: .or/10.1371/journal.pone.0251707.

Alshammart, K. (2019). Anxiety among male nursing students in a Saudi University. *International Journal of Advanced and Applied Science*, 6 (5), 76-83.

Armour, C. (2012). Mental health in prison: A trauma perspective on importation and deprivation. *International Journal of Criminology and Sociological Theory*, 5 (2), 886-894.

Atnafie, S., Mulunch, Y., Getahun, K., Woredekal, A. & Kahaliw, W. (2020). Depression, anxiety, stress and associated factors among khat chewers in Amhara region, Northwest Ethiopia, *Hindawi Depression Research and Treatment*, Volume 2020, Article ID7934892,12 pages. DOI:.org/10.1155/2020/7934892.

Ayyaz, M., Butt, U., Umar, M., Khan, W., and Farooka, M. (2020). Setting up a COVID-19 care facility at a prison: an experience. *Annals of Medicine and* Surgery, 57 (343-345. Doi:1016/jamsu.2020.06.043.

Barthelemy, A., Lee, C., Cundiff, D. & Do, E. (2020). COVID-19 and the correctional environment: the American prison as a focal point for public health. *American Journal of Preventive Medicine*, 58 (6), 888-891.

Ballenger, J., Davidson, J., Lecrubier, Y., Nutt, J., Borkovec, T. Rickels, K., Stein D., & Wittchen, H. (2001), Consensus statement on generalized anxiety disorder from *the* International Consensus Group on Depression and Anxiety. *Journal of Clinical Psychiatry*, 62, 53-58.

Beynon, J. & Drew, N. (2011). Information sheet: mental health and prisons.

Bilal, F. and Saeed, K. (2011). Psychiatric morbidity among female inmates of district jail in Adyala, Rawalpindi. *Rawal Medical Journal*, 36 (2), 18-28.

Birmingham, L. (2003). The mental health of prisoners. *Advances in Psychiatric Treatment*, 9, 191-201

Blaauw, E., and Kerkhof A. (2000). Mental Disorders in European prisons systems. Arrangements for mentally disordered prisoners in the prison systems of 13 *European*. *International Journal Law Psychiatr*, 23.649-63.

Brinded, P. et.al. (2001). Prevalence of psychiatric disorders in New Zealand prisons: A national study. *Australia and New Zealand Journal of Psychiatry*, 35:166-173.

Brooks, S., Webster, R., Smith, I., Woodland, L., Wessely, G., et.al. (2020) The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet*, 395, 912-920, doi: 10.1016/SOI40-6736(20)30460-8.

Bureau of Jail Management and Penology (BJMP) comprehensive operations manual 2015 Edition.

Bureau of Jail Management and Penology (2021).

Cabrera, R. & Nonato, V. (2020) 804 Inmates qualified for release-BJMP. *One News*.

Cahapay, Michael B. (2020). National responses for persons deprived of liberty during the COVID 19 pandemic in the Philippines, *Victims & Offenders*.

Caixing Global (2019).

Chen, Q., Liang, M., Li, Y., Guo, J., Fei, D., Wang, I., Li, X. (2020). Mental health care for medical staff in China during the COVID-19 outbreak. *Lancet Psychiatr*.

Chew, N., Lee, G., Tan, B., Jing, M., Goh, Y., Ngiam, N., et al.

(2020). A multinational multicenter study on the psychological outcomes and associated physical symptoms amongst healthcare workers during COVID-19 outbreak. *Brain Beha.Immum*, 88,559-565. DOI: 10.1016/j.bbi.2020.04.049

Cheung, T., Tsoi, V., Wong, K., and Chung, R. (2019). Abuse and depression among Filipino foreign domestic helpers: a cross-sectional survey in *Hongkong. Public Health*, 11: 166, 121-127. DOI: 10.1016/j.puhe, 2018.09.20.

Choi, E., Hui, B., & Wan, E. (2020). Depression and anxiety in Hong Kong during COVID-19. *International Journal Environmental Research Public Health*, 17, 3740.

CNN. (2020). TIMELINE: How the Philippines in handling COVID-19.

Convocar, J., Billones, V. and Supiter, N. (2020). Perceived stress, geopathic stress and spirituality of male prison inmates. *Journal of Mental Health and Clinical Psychology*, 4 (2), 18-33.

Craske, M., Srein, M., Eley, T., Milad, M., Holmes, A., Rapee, R., & Wittchen, H. (2017). Anxiety disorders. *Nat.Rev.Dis. Primers*, 3, 17024.

Dadi, A., Dachew, B., Kisi, T., Yigsaw, N., & Azale, T. (2016). Anxiety and associated factors among prisoners in North West of Amhara Regional Srtate, Ethiopa.*BMC Psychiatry* 16, 83.DOI:10.1186/s1288-016-0792-y.

Department of Disease Control (2020). Corona Virus Disease (COVID-19).

Droit-Volet,S., Gil, S., Martinelli, N. Andant, N., Clinchamps. M., Parreira, L., Rouffiac, K., Dambrun, M., Huguet, P, Dubuis, B., et.al (2020). Time and COVID-19 stress in the lockdown situation: Time free, dying of boredom and sadness.*PLoS ONE*, 5, e0236465.

Duan, I., & Zhu, G. (2020). Psychological interventions for people affected by COVID-19 epidemic. *Lancet Psychiatry*.

Dubey, S., Biswas, P., Ghosh, R. et.al. (2020). Psychosocial impact of COVID-19. *Diabetes Metab.Synd*, 14,779-788.

Edrada, E., Lopez, E., Villarama, J., Salva E., Dagoc, B., Smith, C. et.al. (2020) First COVID-19 Infections in the Philippines: a case report. *Tropical Medicine Health*, 48:21. DOI: 10.1186/s41182-020-00218-7.

Eduardo, J. & Gabriel A. (2017). Assessing the leadership skills of the chiefs of police in the towns of Nueva Ecija, Philippines: A dichotomy between managerial competence and decision-making ability. *Open Journal of Leadership*, 6 142 159.

Eduardo, J.P. (2018). Indigenous people's rights act (IPRA) of 1997: A standpoint from selected higher education institutions in Nueva Ecija after 20 years. *Journal of Progressive Research in Social Sciences*, 8 (1).

El-Hage, W., Hingray, C., Lemogne, C., Yrondi, A., Brunault, P, Bienvenu, T., et.al (2020). Les professionnelsn de santre face a la pandemie de la maladie a coronavirus (COVID-19):quels risques pour leur sante mental? *Encephale* 46, S73-S80. Doi:1016/jencep,2020.04.008

Enclopedia Britannica (2014). Depression.www.britannica.com/topic/depression. Encyclopedia Britannica (2015). Anxiety,

Fatoye, F., Fatoye, G., Oyebanji, A. & Ogunro, A. (2006) Psychological charateristics as correlates of emotional burden in incarcerated offenders in Nigeria. *East African Medical Journal*, 83 (10, 545-552.

Fazel, S. and Danesh, J. Serious mental disorder in 23,000 prisoners: a systematic review of 62 surveys.

Fazel, S. and K. (2012). Severe mental illness in 33,588 prisoners worldwide: systematic review and meta-regression analysis. *The British Journal of Psychiatry*, 5,364-373.

Fovet, L., Lancelevee, C., Eck, M., Scouflaire, T., Becache , E., Dandelot, D. et.al. (2020) Mental health care in French correctional facilities during the COVID-19 pandemic. *Encephale* 46,560-565.

Genco, R., Ho, A. Grossi, S., Dunford, R. & Tedesco, L. (1999). Relationship of stress, distress, and inadequate coping behaviors to periodontal disease. *Journal of Periodontology*, 70 (7), 711-723.

Gulano, M., Lo Moro, G., Voglino, G., Bert, F., % Siliquini, R. (2020) Effects of COVID-19 lockdown on mental health and sleep disturbances in Italy. *International Journal Environmental Research Public Health*, 17, 4779.

Hall, R., and Chapman, M. (2008). The 1995 Kikwit Ebola outbreak lessons hospitals and physicians can apply to future viral epidemics. *General Hospital Psychiatry*, 30,446-452.

Hao,F., Tan, W., Jiang, I., Zhang, I., Zhao, X., Zou, Y, et.al. (2020) Do psychiatric patients experiences more psychiatric symptoms during COVID-19 pandemic and lockdown?: A case-control study with service and research implications for immunopsychiatry. *Brain Behav.Immum*, 87,100-106. DOI10.1016/j.bbi.2020.04.069

Hao, Y., Hua, C. & Feng, X. (2020). Patients with mental health disorders in the COVID-19 epidemic. *The Lancet Psychiatry*, 7(4). Doi.org. /10.1016/S2215-0366 (20)300900 PIMID: 32199510

Hawkley, L., and Cacioppo, J. (2011). *Perceived social isolation: social threat vigilance and its implications for health.* Oxford Handbooks Online: Oxford, UK.

Hawks, L., Woolhandler, S., and McCormick, D. (2020). COVID-19 in prisons and jails in the United States. *JAMA Intern Med.* 

Hewson, T., Hard, J. & Andrew, S. (2020). *Effects of the COVID-19* pandemic on the mental health of prisoners.

Human Rights Watch (2020). *Philippines: prison deaths unreported amid pandemic*. Published 28 April, 2020.

Islam, S., Bodrud-Doza, M., Khan, R., Haque, M., and Mamun, M. (2020). Exploring COVID-19 stress and its factors in Bangladesh: a perception-based study. *Heliyon* 6: e04399. Doi: 10.1016/j.heliyon. 2020.e04399.

James, D. and Glaze, L. (2006). *Mental health problems of prison and jail countries*, U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.

Kahambing,J. & Edilo, S.(2020).Stigma,exclusion,and mental health during COVID-19. 2 cases from the Philippines. *Asian Journal of Psychiatry*; 54:102292.

Khan, T., Hussain, H., Khan, G., Khan, A., Badshah, A., & Sarwar, R. (2012). Incidence of depression among incarcerated woman in central prison, Peshawar, Pakistan. *European Journal of General Medicine*, 33-38

Khatatbeh, M. (2020). Efficacy of nationwide curfew to encounter spread of COVID-19: a case from Jordan. *Frontiers in Public Health*, 8 (394).

Kong, X., Zheng, K., Tang, M., Kong, F., Zhou, J., & Diao, I (2020). Prevalence and factors associated with depression and anxiety of hospitalized patients with COVID-19. MedRxiv.

Kothari, R., Forrester, A., Greenberg, N., & Tracy, N. (2020). COVID-19 and prisons: providing mental health care for people in prison, minimizing moral injury and psychological distress in mental health staff. *Medicine, Science and the Law*, 60 (3), 165-168.

Lancet, T. (2020). Learning from experience.*The Lancet*, 395(10229,pp 10-11.

Le, T., Le, M., Dang, A., Dang, A., Nguyen, C., Pham, H., et.al (2019), multi-level predictors of psychological problems among methadone maintenance treatment patients in different type of setting in Vietnam. *Substance Abuse Treatment Prev. Policy*, 14, 39. doi: 10, 1186/S1301-019-0223-4.

LeMoult, J., Humphreys, L., Tacy, A., Hoffmeister, E., & Gotlib, H. (2020) Meta-analysis: exposure to early life stress and risk for depression in childhood and adolescence. *Journal of the American Academy of Child & Adolescent Psychiatry*, vol 59.

Li, S. and Zhang, Y. (2020) Mental healthcare for psychiatric inpatients during the COVID-19 epidemic. *General Psychiatry*, 33, 100216. (CrossRef) (PubMed)

Liebrenz, M., Bhugra, D., Buadze, A., & Scleifer, R. (2020). Caring for persons in detention suffering with mnetal illness during the COVID-19 outbreak. *Forensic Science International: Mind and Law.* 1000013.

Lorenzo, Arthur C. (2020). BJMP COVID-19 Advisory #22: Mental health strategies for personnel related with COVID-19 Crisis. April 28,

Lovibond, P., and Lovibond, S. (1995). The structure of negative emotional states: Comparison of the the depression, anxiety, stress scale (DASS) with the beck depression and anxiety inventories. *Behavior Research and Therapy*, 33 (3), pp.335-343.

Majundar, S. and Acharya, A. (2016). Mental health problems among prison population, Udaipur, Tripura. *Indian Journal of applied Research*, 6 (4),

Mamun, M. Doza, >, & Griffiths, D. (2020). Hospital suicide die to non-treatment by healthcare staff fearing COVID-19 infection in Bangladesh? *Asian Journal Psychiatry*, 51,102295.

Mamum, M. and Griffths, M. (2020) First COVID-19 suicide case in Bangladesh due to fear of COVID 19 and xenophobia possible suicide prevention strategies. *Asian Journal of Psychiatry*, 51.102073.

Mazlan, A. (2014). Stress and depression: a comparison study between men and women inmates in Peninsular Malaysia. *International Journal of Humanities and Social Science*, 4 (2), 153-160.

Matthews, T., Danese, A., Caspi, A. Fisher, H., Meilor, S. Kepa, A. Moffitt, T., Odgers C., & Arseneault, I. (2019). Lonely young adults in modern Britain findings from epidemiological cohort study. *Psychological Medicine* . 49 (2), 268-277. DOI: 10.1017/S0033291718000788.

McCarthy, J. (2020). As COVID-19 fears grow, 10,000 prisoners are freed from overcrowded Philippine jails. NPR.

Medical News Today (2021).

Mediline Plus Medical Encyclopedia (2021).

Men, L. (2003). Mecanismo neuropsicologicos do stress:teoria e aplicacoes clinicas,Sao Paulo: *Casa do Psicologo*.

Mexico Ministry of Health. (2021). COVID-19 in Mexico: Epidemiology Data. Available online:

Miller, J. (2020). British teen dies after suicide attempts due to coronavirus fears. *N.Y Post.* 

Muller, N. (2014). Infectious diseases and mental health. In:Sartorius N., Holt RIG, Maj M. editors. Key issues in Mental Health. Basel: S. *KARGER AG*: 99-113.

Nesset, M., Rustad, A., Kjelsberg, E., Almvik, R., & Bjorngaard,J. (2011). Health care help seeking behavior among prisoners in Norway. *BMC Health Services Research*, *11:301* 

Nurse, J., Woodcock, P., & Ormsby, J. (2003). Influence of environmental factors on mental health within prisons: Focus group study. *British Medical Journal*, 327(7413), 480.

Novoticol, J., Garcia, P., Olaya, B., Lasheras, I., Anton, R., & Santabarbara, J.(2020).Prevalence of depression during the COVID-19 outbreak: A menta-analysis of community-based studies. *International Journal of Clinical Health Psychology*, 21,100196

Nwachukwu, I., Nkire, N., Shalaby, R., Hrabok, M., Vuong, W. et.al. (2020) V.I.O. COVID-19 pandemic: Age-related differences in measure of stress, anxiety and depression in Canada. *International Journal Environmental Research Public Health*, 17, 6366.

Oei, T., Sawang, S., Goh, Y., & Mukhtar, F. (2013). Using the depression anxiety stress scale 21 (DASS-21) across cultures. *International Journal of Psychology*, DOI:10.1080/00207594.2012.755535.

Office of the High Commissioner for Human Rights (2020). UN human rights Treaty bodies call for human rights approach in fighting COVID-19 24 March 2020.

Organizacao Mundial da Saude (2020). O impacto da pandemia na saude mental das pessoas ja e extremamente preocupante. (Internet). Genebra (CHE),

Oxford (2020). Oxford University. Coronavirus (COVID-19).

Pedroza, A., Bitencourt, L., Fores, A., Cazumba, ML. Campos, R., Briot, S., & Silva, A. (2020). Emotional, behavioral, and psychological impact of the COVID-19 *Pandemic. Frontiers in Psychology*, 11, 566212. doi:: 10.3389/fpsyg,2020.56612.

Qiu, I., shen, B., Zhao, M., Wang, Z., Xie, B., and Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *General Psychiatry*, 33:e100213. DOI:10.1016/. jvb.2020.103440.

Rede CoVida. (2020). Ciencia, Informaco e solidariedade, Painel Coronavirus COVID-19br.org.Accessed 10 May, 2020

Rossi, A., Panzeri, A., Pietrabissa, G., Manzoni, G., Castelnuovo, G., & Mannarini, S. (2020). The anxiety-buffer hypothesis in the time of COVID-19: when self-esteem protects from the impact of loneliness and fear on anxiety and depression. *Frontier Psychology*, 11, 2177.

Sajid, I. (2020). COVID-19: Philippines releases nearly 22,000 inmates. Anadolu Agency.

Saikarthik, J., Saraswathi, I., & Siva, T. (2020). Risk factors and protective factors of mental health during COVID-19 outbreak and lockdown in adult Indian population: a cross sectional study. *MedRxiv*. DOI:10.1101/2020.06.13.20130153.

Santini, Z., Koyanagi, A., Tyrovolas, S., Mason, C. & Haro, J.(2015). The association between social relationships and depression: A systematic review. *Journal Affective Disorder*, 175, 53-65

Salari, N., Hosseiinian-Far, A., Jalali, R., Vaisi-Raygani, A., et.al. (2020). Prevalence of stress, anxiety and depression among the general population during the COVID-19 pandemic: a systematic review and meta-analysis. Global Health, 16 (1), 57.

Salgado, J., Villas, A., Salas, S. Milanes, D., & Frutos, C.(2020). Related health factors of psychological distress during the COVID-19 pandemic in Spain. *International Journal Environmental Research Public Health*, 17, 3947.

Sanchez, A., Simas,L., Diuana, V., & Larouze,B (2020). COVID-19 nas prisoes:un desafio impossivel para a saude publica? *Cad Saude Publica*, 36 (5), x00083520.

Santos, A. (2020)." Waiting to die": coronavirus enters congested Philippine jails. *Aljazeera* 

Santos, M., Alves, V., Pereira, A., Rodrigues, D., Marchiori, G., & Guerra, J. (2017).Saude mental de mulheres encarceradas em um presidio do Estado do Rio de Janeiro. *Texto Context Enferm*: 26 (2),1-10.

Shivani, T. (2013). The psychological effect of incarceration on inmates: can we promise positive emotion in inmates. Review Article. *Delhi Psychiatry Journal*, 16 (1), 62-73.

Shrestha, G., Yadav, D., Sapkota, N., Baral, D., Yadav, B., Chakravartty, A., & Pokharel, P. (2017). Depression among inmates in a regional prison of eastern Nepal: a cross-sectional study. BMC Psychiatry, 17,348. DOI: 10.1186/s12888-017-1514-9

Slade, j. Teesson, W., & Burgess, P. (2007). The mental health of Australians 2: Report on the 2007 national survey of mental health and well-being.

Stewart, Asleigh (2020). The response to COVID-19 inj prisons must consider the broader mental health impacts for people in prison. *Australian & New Zealand Journal of Psychiatry*: (54 (12). DOI: 10.1177/0004867420937788.

Talevi, D., Socci, V. Carai, M., Carnaghi, G., Faleri, S., Trebbi, E., Di Bernardo, A., Capelli, F., & Pacitti, F. (2020) Mental health outcomes of the COVID-19 pandemic. *Riv.Psichiatr*, 55,137-144.

Taylor, S. (2019). *The psychology of pandemics: preparing for the next global outbreak of infectious disease*. Newcastle upon Tyn, UK: Cambridge Scholars Publishing. Tee, M., Tee, C., Anlacan, J., Aligam, K., Reyes, P., Kuruchittam, V. & Ho, R. (2020). Psychological impact of COVID-19 pandemic in the Philippines. *Journal of Affective Disorders*, 277,379-391.

Teh,C., Ngo, C., Zulkifli,Vellasamy, R. & Suresh., K (2015). Depression, anxiety and stress among undergraduate students: a cross sectional study. *Open Journal of Epidemiology*, 5 (4), pp.260-268.

The New York Times (2020). *The coronavirus update: skyrocketing cases push India to no. 2 on the pandemic list* 

Tozzo, P., D'Angiolella, G, and Caenazzo, I. (2020). Prisoners in a pandemic: we should think about detainees during COVID-19 outbreak. *Forensic Science International*, 2,162-162. Doi:10.1016/jfsisyn.2020.05.001.

Tran, B., Ha, G., Nguhen, L., Vu,G., Hoang, M., Le, H, et.al. (2020). Studies of novel coronavirus disease 19 (COVID-19) Pandemic: a global analysis of literature. *International Journal of Environmental Research and Public Health*, 17(11):4095.

United Nations Office on Drugs and Crime (2020). Position Paper: *Covid-19 preparedness and responses in prisons.* 

Wang, C., Horby, P., Hayden, F. & Gao, G. (2020). A novel coronavirus outbreak of global health concern. Lancet, 395, 47-473.

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C., et.al (2020a)Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the generalized population in China. *International Journal Environmental Research Public Health*, 17(5), 1729.

Wilper, A., Woohandler, S., Boyd, J., Lasser, K., McCormick, D., Bor, D. et. al (2009) The health and health care of US prisoners: a nationwide survey. *American Journal of Public Health*, 99 (4) 1-7. Doi: 10.2105/AJPH.2008.144279.

Wittchen, H., Kessler, R., Beesdo,K., Krause, P., Hofler M. & Hoyer,J. (2002). Generalized anxiety and depression in primary care: Prevalence, recognition, and management. *The Journal of clinical Psychiatry*, 63, pp.24-34.

Wolff, N., Morgan, R., Shi, J., Heuning, J., & Fisher, W. (2011). Thinking styles and emotional states of male and female prison inmates by mental disorder status. *PSYCHIATRIC SERVICES*, 62 (12) 1485-1493.

World Health Organization (2001). *The world health report, 2011. Mental health: new, new hope.* WHO Library: Geneva, Switzerland.

World Health Organization (2002). *The world health report 2002: Reducing risks, promoting healthy life.* World Health Organization

World Health Organization (2007). Mental health and prisons, (Geneva World Health Organization.

World Health Organization (2008). Background paper for Trencin statement on Prisons and mental health, Slovada, WHO Publications.

World Health Organization. (2011). Preventing suicide in prisons and jails. *WHO International Association for Suicide Prevention* (pp2-27). WHO Press, World health Organization, 20 Avenue appia, 1211 Geneva 27, Switzerland. World Health Report (2016). *Mental health, new understanding, new hope*, Geneva. IN.

World Prison Population List (2010).

World Health Organization. (2017). Depression fact sheet,

World Health Organization (2020). Critical preparedness, readiness and response actions for COVID-19: Interim Guidance, 22 March, 2020, World Health Organization, Geneva, Switzerland.

World Health Organization (2020). Coronavirus disease (COVID-19) Re-D 2020.

World Health Organization (2020). Coronavirus disease (COVID-19) pandemic.

World Health Organization. (2021). *COVID-19 Weekly epidemiological update* 22. World Health Organization.

World Health Organization. (2020a) *Coronavirus*. (Online), Geneva. (Accessed March 16, 2020). Reference Source.

World Health Organization. (2020b). Coronavirus disease (COVID-19) Situation Dashboard. (Online). Geneva: World Health Organization. (Accessed March 31, 2020).

World Prison Brief (2020).

Xiang, Y., Yang, Y., Li, W., Zhang, O., Cheung, T. (2020) Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *Lancet Psychiatry*, 7 (3), 228-229.

Xiong, J., Lipsitz, O., Nasri, F., Lui, L., Gill., H., et.al. (2020). Impact of COVID-19 pandemic on mental health in the general population: A systematic review. *Journal of Affective Disorders*, 2020.

Yaribegi, H., Panahi, Y., Sahraei, H., Johnston, T., & Sahebkar, A.(2017). The impact of stress on body function: A review. *EXCLI*, 16, 1057-1072, doi: 10.17179/excli2017-480.

Yao, H., Chen, J. and Xu, Y. (2020). Patients with mental health disorders in the COVID-19 epidemic. *Lancet Psychiatry* 7 (21). DOI: 10.1016/S2215-0366(2030090-0

Zhu, J., Sun, L., Zhang, L., Wang,H., Fan, A., Yang,B., et.al, (2020).Prevalence and influencing factors of anxiety and depression, symptoms in the first-line medical staff fighting against covid-19 in Gansu. *Front Psychiatry*: 11: 1-6

#### Affiliations and Corresponding Information

May Ramones, MS San Mateo National High School Department of Education – Philippines

#### Arthur Gubia-On, PhD

Ifugao State University - Potia Campus Philippines

# Peter Paul Cagatao, PhD

University of La Salette, Inc. Philippines