Light at the End of the Tunnel: Lived Experiences of Covid-19 Survivors in Ilocos Sur, Philippines

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Abstract

The purpose of this interpretative phenomenological qualitative study is to provide an in-depth understanding, description, and interpretation of the disease experiences of COVID-19 survivors. The participants were the nine patients discharged from the different hospitals after receiving treatments from the intensive care units and covid wards. Data were collected through individual in-depth face-to-face and virtual interviews until data saturation were recorded and transcribed verbatim. Data were analyzed using Colaizzi's method. Six main themes and 15 subthemes emerged: the main themes include: reactions while waiting for the COVID-19 test results, the physical and mental effects of COVID-19, adherence to the treatment and management in the hospital, treatment of hospital staff to their patients, support systems, and coping mechanisms of COVID-19 survivors. Understanding the patient's disease signs and symptoms should serve as a basis for developing medications and treatments for COVID patients. They should adopt the coping mechanisms presented in this study because it may help them recover, as proven by the survivors. Further study is also recommended in a wider and broader scope.

Keywords: COVID-19 signs and symptoms, Phenomenology, COVID-19 treatments, COVID-19 survivor, COVID -19 virus.

Introduction

The COVID-19 pandemic can be considered one of the worst nightmares of the century for the general public and healthcare workers, especially when vaccines were not yet available to prevent the spread of the virus. Every day the world is seeing an increase in the death tally, despite all possible steps, such as lockdowns and other infection control measures. Being inflicted with COVID-19, especially during the year 2021, has been considered a traumatic event;

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diagnosis of COVID-19 infection leads to significant anxiety and distress. The World Health Organization officially declared the COVID-19 pandemic in March 2020 (Communicable Disease Center, 2021). The emergence and rapid increase in the number of cases of coronavirus disease 2019 (COVID-19), an infectious disease caused by severe acute respiratory syndrome coronavirus 2, pose complex challenges for global public health, research, and medical communities (Li et al., 2020). The virus that causes COVID-19 is mainly transmitted through droplets generated when an infected person coughs, sneezes or exhales. These droplets are too heavy to hang in the air and quickly fall on floors or surfaces. They can be infected by breathing in the virus, who are within proximity of someone who has COVID-19, or by touching a contaminated surface and then the eyes, nose, or mouth (World Health Organization, 2021). The effects of the COVID-19 pandemic extend beyond those on physical health, permeating mental health as well (Wang et al., 2021).

In the Philippines, on January 30, 2020, the Philippine Department of Health reported the first case of COVID-19 in the country with a 38-year-old female Chinese National. On March 7, 2020, the first local transmission of COVID-19 was confirmed. The World Health Organization works closely with the Department of Health in responding to the COVID-19 outbreak (WHO, 2020). As of May 24, 2021, there are 1,188,672 cases of COVID-19, 20,019 total deaths, 1,120,452 recovered cases, and 48,201 active cases (Worldmeters, 2021). In Ilocos Sur Philippines, as of May 25, 2021, there are 1,655 confirmed cases recorded, 1,269 recovered, and 29 deaths (Provincial Government of Ilocos Sur Action Center, 2021).

As of May 24, 2021, Corona Virus cases worldwide are 168 514 195; there are 3,499 434 deaths and 150,017,648 recovered cases. The United States of America got the highest number of cases followed by India, Brazil, France, Turkey, Russia, the UK, Italy, Germany, and Spain. The Philippines ranked 24 among the countries (Worldmeters, 2021).

Stories of COVID-19 survivors worldwide are touching, just like a patient from Nigeria who is a registered nurse and COVID-19 survivor and who got a second chance to live and is grateful for that; as she recounted her experience, she believed that the coronavirus would one day be a thing of the past. (United Nations Children's Fund, 2021). Many Filipinos worldwide, especially healthcare workers, have sacrificed their lives caring for COVID -19 victims.

In the study of Sahoo (2020), it is evident that the experiences of COVID-19 ICU survivors had predominant themes of fear of being intubated, dying alone, or being away from family; concern about whether they will be given respect after their death or not; feeling insecure about their families if they die; wish for a death prior to their near ones (admitted in the same ICU) and; worrying about the family.

The different new experiences (other than those usually reported) could be because of the hype of information about the high mortality rates of COVID-19, which induces a significant fear in the mind of people diagnosed with the disease and gets further exacerbated when they are shifted to the ICU.

While often a response to a particular stimulus, fear can also be a reaction to a feeling, a sense of something wrong that creates a general malaise that is hard to pinpoint or even quantify. These latter fears, including the current COVID-19 pandemic, imply that the perception of some direct threat triggers individual reactions. However, individuals vary greatly in information, knowledge, and perceived susceptibility relative to any threat (Pakpour & Griffiths, 2020).

With the increase in the number of diagnosed with COVID-19, the number of cured COVID-19 is on the rise, and the number of people in the recovery period of COVID-19 is also on the rise. Patients with COVID-19 are often accompanied by symptoms such as anxiety and insomnia. Evidence supports the effectiveness and safety of massage for anxiety, insomnia, and aches and pains all over the body (Wu et al., 2020).

In the study of Bekema et al. (2021), nearly all the participants said that the first emotion they felt when learning about the positive diagnosis was that the effects of the virus would intensify and then lead to their death. They feared news reports on the overcapacity of public hospitals and morgues.

The study entitled on psychological disturbances of survivors throughout COVID-19 crisis: a qualitative study showed that during pandemics such as the COVID-19 pandemic, in addition to physical and exhausting symptoms of the disease, patients experience disturbances such as living in limbo, psychological distress behind the wall, and the psychological burden of being a carrier. Understanding these disturbances can help implement appropriate psychological interventions (Moradi, 2020).

To address the gap in knowledge and literature, since COVID -19 is still new to the world of medicine, the study's results would help support the COVID-19 survivors, boost their morale and well-being, and gain insights into their lived experiences. To the Department of Health, this will help formulate policies and programs for better treatment of the COVID— 19 patients since they have revealed their signs and symptoms. To the government, this will serve as an eye-opener for better treatment and enriching benefits for COVID-19 patients. To the academe this will help the students and faculty to understand better what is COVID-19 disease since this disease is new to the academe.

With this, the study revolved around the experiences of COVID–19 survivors.

Research Questions

The researchers had relatives and friends who were victims of this dreadful disease; they were infected, one of whom died, and others survived the confinement in ICU and COVID wards for a couple of months. The researchers wanted to explore the experiences of the COVID-19 survivors on how they treated and coped with these struggles in their lives.

Literature Review

Being optimistic is very important to survive, especially in times of pandemic. Having an optimistic attitude and focusing on what is good in a given situation can greatly impact physical and mental health. The effect of the COVID-19 pandemic can cause much stress and struggles to those who tested positive. They were isolated until they were tested negative and or survived the disease. The dilemma of people getting away from them is because they are afraid they will also acquire the virus. This could make them feel low. The overall experience could lead to depression and psychological problems that could cause potential health problems for the victims.

The model of Suchmann's (1976) psychological model on the stages of illness states that the illness experience is described and analyzed according to the following five stages demarcating critical transition and decision-making points in medical care and behavior; (1) symptom-experience stage; (2) assumption of the sick role stage; (3) medical care contact stage; (4) dependent-patient role stage; (5) recovery or rehabilitation stage. Each stage is found to present new problems and to require different kinds of decisions and medical actions. The data support the general proposition that social and medical considerations dictate the behavior of the sick individual. In most cases, the pathways and routines established by the formal medical system function quite smoothly.

A negative COVID-19 test result may alleviate anxiety, depression, stress, and psychological impact. Enhancing the health system's capacity to combat COVID-19 may increase public confidence and improve mental health. Third, based on our findings, the WHO, governments, and health authorities should provide regular updates on the effectiveness of vaccines and treatment methods—misinformation related to the cause of COVID-19 (Shahsavari et al., 2021).

According to the participants' experiences, despite a lack of facilities and personal protective equipment, nurses were strongly committed to performing their professional duties during the COVID-19 pandemic. From the nurses' point of view, working in difficult and dangerous conditions is part of a nurse's job, which must be maintained during the pandemic of an emerging disease (Khoshnood et al., 2021).

The protective factors for mental health include the male gender, staying with children or more than six people in the same household, employment, confidence in doctors, high perceived likelihood of survival, and spending less time on health information (Wang et al., 2021).

A recent systematic review found that relatively high rates of symptoms of anxiety, depression, post-traumatic stress disorder, and stress were reported in the general population and healthcare professionals during the COVID-19 pandemic globally (Xiong et al., 2020).

Asia has a number of middle-income countries that face tremendous economic challenges and limited medical resources to maintain physical and mental well-being during the pandemic (Fitzgerald, 2020). The use of face masks by Asians has played an essential role in controlling the spread of COVID-19 (Wong, 2020).

Various governments should offer relief packages to safeguard employment and the economy to protect mental health. Additionally, the level of policy stringency in response to COVID-19 or pandemics may influence mental health and should be moderated accordingly by respective governments (Vannoni et al., 2021).

The study by Son et al. (2021) also states that the participants in Korea also felt anxious and nervous about being diagnosed with COVID-19 infection. Receiving the confirmation of COVID-19 infection was an unexpected disaster.

In the study of D'Amico et al. (2020), there is no specific treatment for COVID-19, and its management is mainly based on supportive care. There is no evidence of the efficacy of anti-diarrheal drugs, but adequate rehydration and potassium monitoring should be performed as in all patients with diarrhea. It is important to underline those antibiotics and antivirals are often used for COVID-19 treatment, involving a likely alteration of the gut microbiota and causing diarrhea. It is plausible that the gut microbiota could be a new therapeutic target and that probiotics could have a role in managing these patients. Interestingly, China's National Health Commission recommended using probiotics to treat patients with severe COVID-19 to preserve intestinal balance and prevent secondary bacterial infections.

Furthermore, the study of Bandyopadhyay & Agarwal (2022) confirms that positive affect positively relates to variety-seeking behavior to solve problems. High self-esteem positively influences variety-seeking. The study by Zhai (2020) showed the association between using face masks and lower anxiety and depression scores. This finding might support the postulation that wearing a face mask could offer psychological benefits, such as feeling less vulnerable to infection via perceived control. The health authorities should offer psychological interventions to the general population at higher risk of developing adverse mental health, including women, people younger than 30, and single and separated.

Three main themes of "organizational challenges," "legal challenges," and "personal challenges" were explored as the main challenges of health human resources management during COVID-19. On the one hand, organizational challenges include restricted financial resources, compensation discrimination, staffing distinction points, imbalance in the workload, weak organizational coordination, inefficient intersectoral relationships, parallel decisions, inefficient distribution of human resources, lack of applied education, lack of integrated health protocols, lack of appropriate evaluation of performance, employee turnover, lack of clear approaches for staffing, and shortage of specialized manpower, and on the other hand, the personal challenges include insufficient knowledge of the employees, psychological disorders, reduction of self-confidence, burnout, workload increase, reduced level of job satisfaction, effects of colleague and patients bereavement and unsafety sense against the workplace (Yusefi et al., 2022).

High educational background is a risk factor, and online psychological interventions such as cognitive behavior therapy and mindfulness-based therapy could improve mental health for highly educated individuals (Ho et al., 2020).

Thinking only positive things, changing the way they see life in the future. Doing things for less stress and loving oneself using recreational and diversional activities. More conscious about the environment around them. They have developed the determination to overcome the trials in their life (Lind et al., 2022).

Methodology

This study employed a qualitative phenomenological design. Specifically, it utilized interpretative phenomenology. The study participants are the nine COVID-19 survivors who have been positive for COVID-19, aged 18 years old and above, Filipino, no vaccination received, treated in the hospital, with signs and symptoms, and recovered from the disease. The researchers served as the data

gathering instruments because the researchers took notes and recorded all the data observed and shared by the participants, including the non-verbal cues. The participants interviewed were subjected to a consent using the consent form from the WHO. The data collection was continued until data saturation. After collecting and filling in the necessary data, the researcher secured a soft copy deemed for clustering and classification.

This study was reviewed by the University of Northern Philippines Ethical Research Committee board with Approval number 21-076. During the study, the researcher followed the inter-Agency task Force protocol. The researchers wrote permission to the Provincial Health Office to interview the COVID-19 survivors. Since the survivors were already in their homes, the Provincial Health Office gave a letter of endorsement to the Municipal Health Offices to allow the researcher to look into the list of participants for the interview. The Municipal Health Officer instructed the nurse and midwife in charge of the catchment to call the participant if they would be interviewed. The researcher seeks permission from the Covid -19 survivor for an interview. Data triangulation was used in data collection, including indepth interviews, observation, and literature. The interviews were conducted via face to face and also via video conferencing. The sampling strategies were purposive sampling. They transcribed indepth interviews and observations. Thematic analysis was used to identify patterns of meaning across the data set that provide the answer to the research question being addressed. The Collaizi (1978) methodological approach was used to investigate the phenomena of interest. It also facilitates and accesses implicit and explicit meanings embedded in the participants' descriptions through constant validation of responses as the meaning and essence of the phenomenon emerge.

Results and Discussions

Several significant statements from the nine participants were extracted from the interview transcripts to generate meanings from their verbatim responses. Careful analysis of these statements revealed six main themes and 15 sub-themes that explained the experiences of COVID-19 survivors.

Themes are identified within and across the experiences of COVID-19 survivors, each with overlapping sub-themes. The in-depth interviews allowed participants to express their thoughts, feelings, and experiences. Rather than quantifying their responses, the intention is to present an in-depth understanding of participants' lived experiences or meanings. The descriptor' some' was used to denote a small number of nine participants, and direct quotes from participants

were italicized. In this section, the essence and the constituents described what it means for COVID-19 survivors.

Theme 1. Reactions While Waiting for the COVID-19 Test Results

There is an urgent need to develop accurate, rapid diagnostic tests in general practitioners' clinics, community, and rural settings (Tran et al.,2021). The participant's reaction while waiting for the results of the RT- PCR Swab test varies from one another. These are positive and negative reactions. The positive reaction is accepting the covid 19-confirmatory results and the adverse reaction is feeling anxious, hopeless, and fearful of the family's future.

Subtheme 1. Positive Reaction. Positive reaction refers to one's propensity to experience positive emotions and interact with others and with life's challenges in a positive way. It involves experiencing positive feedback on the experiences. A positive attitude toward the situation will help overcome the situation. Positive emotions and interactions with others and with life's situation can uplift the result of the situation (Djukic & Nielsen, 2022).

In the study of Avila & Acena (2020), stated that there are things beyond ones control that life can be difficult at times and one cannot have everything in life. They also accept the fact that they cannot have everything, the respondents of their study embrace what life is without resistance.

Acceptance of The Covid 19- Confirmatory Results. In theory, Schumann (1976), a psychological model on the stages of illness, states that the illness experience is described and analyzed according to the following five stages demarcating critical transition and decision-making points in medical care and behavior; (1) symptom-experience stage; (2) assumption of the sick role stage; (3) medical care contact stage; (4) dependent-patient role stage; (5) recovery or rehabilitation stage. The participants finally accepted the result and eventually fought the disease and followed all the doctors' orders and health professionals' advice.

Participants 7 said "When I got the positive result, my tears fall down. I immediately lift my head up and whisper "God I trust in you" Help me and heal me." "I felt nervous and my pulse increases. My breathing is also fast, but I have to accept it and fight for it. You are only Covid, I'm a human.... and I have God to save me".

Subtheme 2. Negative Reactions. Negative reaction signals that the individual's current state of affairs is problematic (Schwarz & Clore, 1996) and that in-depth and elaborative thinking is required to resolve the situation (Dietrich, 2004).

Feeling Anxious and Hopeless about Covid 19 Diagnosis. Anxiety means fear of the unknown. Hopeless means not expecting good or success, despair, feeling alone, and not being susceptible to remedy or

cure the disease. Negative thinking of all the things around. The COVID-19 pandemic is having negative effects on societies' mental health. The pandemic and the measures taken to combat it can affect individuals' mental health. Accompanying chronic disease and previous psychiatric history were found as risk factors for health anxiety. Most psychologically affected by the COVID-19 pandemic are women, individuals with previous psychiatric illnesses, individuals living in urban areas, and those with an accompanying chronic disease. Priority might be attached to these in future psychiatric planning (Özdin & Bayrak, 2020).

While waiting for the test results, for about 3-5 days, the participant felt panic, fear of the unknown, palpitated, nervousness, and lack of sleep waiting for their RT PCR test's incoming result. Even while hoping that they had not contracted the infection, they have in their mind, too, that they have the virus because of the symptoms that they felt. Receiving the confirmation of the COVID-19 infection was a tragedy for them.

Participant 1 said "I panic, I palpitated, my heart beats fast, when I got the positive Covid test swab result ".

Fear for Family's Future. Some of the participants have young children and are also the family's breadwinner. They fear whatever effects of COVID-19 on their health and their family, especially if they will not survive the disease. They thought of the consequences if they died, who would care for their children, and what would be their children's and their family's future.

Participant 3 said, "I am not only afraid for myself, but I am also afraid for my family, especially my children are still young. I am nervous, just like I cannot breathe".

Participants feared leaving their homes, yet they felt like prisoners in their own homes. Older adults saw the youth as potential transgressors of public health measures and supportive parties for the elderly in multiple ways. Fear and hope were the opposite feelings they often cited when reflecting upon a post-pandemic world (Matthew, 2021).

Theme 2. The Physical and Mental Effects of Covid-19

The physical and mental effects of COVID-19 are the signs and symptoms experienced by the participants in the jaws of death, a lapse of memory, and suicidal tendencies.

Sub-theme 2. 1. The Covid -19 signs and symptoms. The COVID-19 signs and symptoms experienced by the participants in this study are high fever, some low-grade fever, on and off fever, body pains, joint pains, back pains, chest pain, fast breathing, tachycardia, difficulty of breathing, weak muscles, slurred speech, nausea and vomiting, diarrhea, easy fatigability, delirium, sore throat, stomach ache, cough

and colds, insomnia, sticky secretions, anxious, loss of taste and smell, cold, clammy skin, sweating, memory loss, hopelessness, stressed, palpitations, comatose/ loss of consciousness and loss of appetite.

Participant 1 said, "I have a high temperature, 39 degrees, I take Paracetamol for my fever, I'm weak, I have loss of appetite, difficulty of breathing, then suddenly I don't know I was already on state of comatose. Even if I was on comatose, I felt I'm, fighting, in my mind, many is praying for me. When I wake up already, they claimed that I'm in delirium, I'm talking but, they can't understand me. I wasn't able to walk, I have a weak muscles and body, sticky secretions, I have a slurred speech".

Participant 3 said "My breathing is not normal. I was rushed to the hospital, I'm palpitating, I feel nervous, I have fast breathing. My antigen is positive, I was quarantined in the barangay facility. I was diagnosed with Mild Pneumonia. Right. I have back pain; I took Ibuprofen and Alaxan. But it progresses. My breathing did not return to normal. The feeling progresses so I was confined in the hospital. I have a mild fever 37.9 degrees, weak body and pain, most especially I'm not vaccinated. I experience covid diarrhea for 4 days, nausea and vomiting, loss of smell, loss of appetite, palpitation, insomnia, difficulty of breathing and chest pains. I'm hopeless".

Moreover, Participant 4 said. "I felt chest pain, I cannot sleep. I feel pressure in my stomach. I have body pains and a cough, and my heart is trembling. I cannot understand my feelings. I have difficulty of breathing. I have nausea and vomiting. As my husband, my watcher in the hospital, claimed," I am in a state of delirium. "I am shouting, "I am dying... I am dying, "and wanting to jump in the window and die. However, I cannot recall that I did that".

Participant 5 said "Cough and colds, loss of smell on my 4th to 7th day, body pains, painful joints, stomach hurts, nauseated, difficulty of breathing, chest pains and palpitation".

Participant 7 said "I felt the difficulty of breathing, my stomach hurts... I lost my sense of smell and taste. I have a loss of appetite; I easily get tired. I have had covid diarrhea for 4 days, nausea and vomiting, and I cannot sleep. I have a mental breakdown already. I cannot breathe by myself alone".

The presence of anosmia or ageusia may be useful as a red flag for COVID-19. Given their high sensitivities, the presence of fever or cough may also be useful to identify people for further testing (Struyf et al., 2021).

Fever and cough were the most common symptoms; proportions with fever ranged from 46% to 64.2% and with cough from 32% to 55.9%. All other symptoms or signs, including rhinorrhoea, sore throat, headache, fatigue/myalgia, and gastrointestinal symptoms, including

diarrhea and vomiting, were infrequent, occurring in less than 10%–20% (Viner et al., 2021).

Subtheme 2.3. In the Jaws of Death. The near-to-death scenario of COVID-19 victims is so real. The participant claimed that she even saw his dead family members and relatives in a comatose state. She saw the ladder up in heaven, Saint Peter, and the angels sang. Even if unconscious, she is fighting the virus in the back of her mind. Without the help of mechanical support like the mechanical ventilator and oxygen therapy, this participant may have died already because they could not breathe independently.

Participant 1 said "Even if I was on comatose, I felt I am, fighting". I saw the ladder going to heaven, I even saw my father, who is already dead for how many decades, he is only sitting there and praying also. I saw my dead relatives". That feeling that I was like in the crucifix like Jesus Christ tortured and suffered like Him".

Subtheme 2.3. A lapse of memory. The participant temporarily loses memory and cannot recall her name and the names of her family. She was disoriented by time, place, and person. She cannot perform the activities of daily living. Simple instructions cannot follow. Most of the participants cannot sleep thinking of their situation.

Participant 1 said, "Many things I cannot remember even my name and their names. I cannot recognize where I am. They teach me the activities of daily living like bathing, brushing, combing my hair".

Subtheme 3.4. Suicidal Tendency. People who commit suicide do not want to die but to end their pain. Some people talk openly about wanting to die or commit suicide. Alternatively, they dwell on the topic of death and dying. The participant expressed their inner self as wanting to die to ease the pain or what they felt.

Participant 4 said "I'm hopeless with my situation". Just like I want to die".

Participant 3 said, "As claimed by my husband "I'm shouting "I'm dying... I'm dying "and wanting to jump in the window and die".

Theme 3. Adherence to the Treatment and Management in the Hospital

The treatment and management in the hospital are the doctors' orders being carried out by the nurses on duty. The treatment of the patients varied from the presenting signs and symptoms. This includes administering antiviral, antibacterial drugs and probiotics, mechanical ventilation/oxygen administration, intravenous therapy, and massage therapy. All the participants were confined to the hospital. Their cases vary from one another. Some are mild and moderate, and the worst part is severe COVID-19. They were put in the Intensive Care Unit; some stayed in the ward for covid, some stayed alone in their room,

and some with one family member. They were given different treatments that were in consonant with their revealing case.

Subtheme 3 .1. Administration of Antiviral, Antibacterial Drugs, and Probiotics. Antiviral drugs are medications that kill germs in the body, particularly viruses. Antibacterial medications are drugs that kill bacteria that cause the infection. Probiotics are good bacteria that help fight infection. It increases the defense of the immune system of Participant 1 said: "I stayed at the Emergency Room for more than 6 hours, then from there I was transferred in my room, What I remember they inject me medication for me in artificial comatose. From that time, I slept for almost a month as far as I know as recorded in my hospitalization chart".

Participant 2 said "Antiviral medications, Remdesivir, they side drip Remdesivir is 5 doses. Antibiotics, Ceftriaxone, and then shifted to Piperacillin Tazobactam, they gave me also Cotrimoxazole, Metronidazole, Dexecadotril and probiotics".

Participant 3 said, "They gave me Diazepam, because I cannot sleep. Azithromycin for 3 days, Zycast 10 days, Montelukast and Levocetirizine, Tamiflu, Oseltamivir, Multivitamins and Probiotics".

Subtheme 3. 2. Urgent Mechanical Ventilation / Oxygen Administration. A mechanical ventilator is a machine that helps a patient breathe (ventilate) when he or she cannot breathe independently for any reason. There are many benefits, but a major risk is an infection. The patient is connected to the ventilator with a hollow tube (artificial airway) that goes in their mouth and down into their main airway or trachea. They remain on the ventilator until they improve enough to breathe independently. It is important to note that mechanical ventilation does not heal the patient. Instead, it allows the patient to be stable while the medications and treatments help them recover (Cleveland Clinic, 2021). Oxygen administration is routinely utilized on most patients admitted to the emergency room or ICU with respiratory distress. Indications for oxygen administration include hypoxemia, increased working breathing, and hemodynamic insufficiency. Oxygen therapy administration aims to maintain adequate tissue oxygenation while minimizing cardiopulmonary work. Insufficient oxygenation includes tachypnea, extra muscle work, dyspnea, cyanosis, tachycardia, and hypertension (Weekley & Bland, 2021).

Participant 1 said, "According to my hospitalization record and my family told me I was hooked to oxygen; they gave me medications and I slept already they hooked to the mechanical ventilator for me to breathe".

Participant 2 said, "I was hooked to Oxygen therapy via nasal canula but cannot tolerate, shifted to via Face mask".

Subtheme 3.3. Relaxing Massage Therapy. Massage therapy gives a rubdown and is useful for alleviating strain and stress. Many people feel better physically, mentally, and emotionally after experiencing a session. Covid anxiety can contribute to both mental and physical breakdown.

Furthermore, massage can help with the stress and negativity caused by the media, mask-wearing, social distancing, and the new norm rules and ordinances COVID-19 created. Likewise, stress from the coronavirus has been shown to have a terrible effect on sleep quality and mood. People that are weighed down by coronavirus anxieties have problems concentrating and accomplishing tasks. Many virus sufferers lack physical strength and power (Discovery Points School of Massage, 2020).

The benefits of massage on the human body are countless and include increased immune function by lifting the activity level of the body's natural "killer T cells," which fight off viruses, pain management, boost mental health and wellness, stress relief, and conditions associated with it, such as tension headaches. Massage boosts the immune system and relieves tension; however, a massage can worsen when the body fights a virus like COVID-19 (Wimbledonclinicmassage, 2021).

Therefore, massage should not be done during the infliction; it can only be done during recovery.

Participant 1 said "I was on massage therapy and speech therapy for two weeks because I cannot walk, I have weak muscles and also I have slurred speech".

Participant 3 said "I also have my massage therapy because I feel my muscles are weak, it helps in my recovery".

Subtheme 3. 4. Hydrating Intravenous Therapy. Intravenous therapy is a treatment that infuses intravenous solutions, medications, blood, or blood products directly into a vein. Intravenous therapy is an effective and fast-acting way to administer fluid or medication treatment in an emergency and for patients unable to take medications orally (Doyle & Mccutcheon, 2021).

Some of the participants of the study experienced COVID- diarrhea. The passage of stools almost 12 times daily makes them feel weak and even dehydrated. Some of them also experienced nausea and vomiting. Thus, the management ordered by the physician is intravenous infusion to correct the body's loss of fluids and electrolytes.

Participant 3 said, "They hooked me to Intravenous Fluid therapy, given a fast drip.".

Participant 2 said, "I was hooked to Intravenous Fluid, fast drip because of my covid diarrhea and vomiting".

Theme 4. Treatment of Hospital Staff to their Patients

Treatment of Hospital Staff to their Patients means how the health workers do their job and execute the procedures for their patients.

Subtheme 4.1. TLC Hands of Health Care Provider. Tender Loving Care (TLC) is the trademark of Filipino Nurses and other health workers in caring for and treating their patients. Evidence has shown through the verbalization of feelings of the coronavirus survivors handled by this professional how much they have cared for and loved their patients. They encourage them to fight the disease. Through the heroic approach and ways of treating this patient, they have overcome this disease that inflicts on them. Indeed, they have the TLC hands that care. The participants were amazed at how committed and dedicated the hospital health workers were, and they were referred to the doctors and nurses who treated them.

The increased self-compassion and well-being in caring for patients found that it reduces secondary traumatic stress and burnout and enhances well-being. Changes in self-compassion explained gains in other outcomes, and initial levels of self-compassion moderated outcomes so that those initially low in self-compassion benefitted more (Neff et al., 2020).

Participant 1 said, "They treat me very nice, the doctors are very good, the nurses are very caring, they cared for me so much. I'm very thankful to them. Even if my family is not around, because I'm alone there... They are calling talking to my family for the update of my recovery".

Participant 8 said, "I'm satisfied, my doctor and the nurses are very caring, they never let me feel that I'm alone in this battle. They monitor me very well".

Subtheme 4.2. Lack of Health Personnel. In the news from the television, newspapers, and other media, it was reported that there was a shortage of healthcare workers willing to take care of COVID-19 patients because this disease is deadly. Many filed their resignation, and many have inflicted and died. Most are doctors, nurses, and other health professionals caring for COVID-19 patients. In the participants' study experiences, there was also a lack of healthcare professionals. This is also true that there is limited movement or exposure to COVID-19 - patients.

Some study participants claimed a lack of nurses assigned or in charge in the COVID- wards—shortage of nurses and doctors due to the fear of infliction and to avoid exposure to the patients. There is a delay in answering the demands of the patients at times, but the participants understand the situation.

Participant 3 said, "All my needs and demands were given, only that there is a delay because there is only one nurse that time, they are under staff.".

Theme 5. Support System

A support system means having a network of people that can provide practical or emotional support. These support systems will help improve overall health and have been shown to reduce stress and anxiety. These are the family, friends, relatives, and colleagues. In addition, government support, in the form of financial support, help the participants alleviate their financial burden.

Subtheme 5.1. Strong family, Friends, and Relatives support. Family is love. It is important to surround oneself with family for support and comfort in times of joy and distress. Studies have shown that supportive relationships are a strong protective factor against mental illnesses and help to increase mental well-being. The family's unity and bond will strengthen individuals' mental state and well-being, especially during disasters and trials. Family helps one another to fight stress and problems along the way. The participants' families uplift the morals of the COVID-19 survivors. They are the backbone, their feet to stand again and fight the disease. They are the wind beneath their wings. Moral and financial support from friends and relatives is a great help.

Participants 1 said "My relatives send me money as help. They gave me moral support by calling and checking my status in the hospital".

Participant 1 said, "My family supported me very well. They monitor my status in the hospital since they are not allowed to come and stay with me. They offer mass and prayers. Since I'm an El Shadai member, they group themselves and pray together. When I'm on my recovery, they assist me to therapy, assist me in my activities of daily living, they take good care of me. They help me in remembering things and the names of my family, they teach me again the things I used to do like cooking, washing, they practice me until my memory come back".

According to the study by Son et al. (2021), family support enabled the participants to push through the difficult times experienced in hospitalization and isolation. They felt safe and protected, endured emotional breakdowns, and were encouraged. As they experienced genuine love and cared from their families, the participants were reminded of the value of family, and their relationships, including those with their spouses.

Subtheme 5.2. Government Support. Philippine Health Insurance (Phil Health) has categorized financial assistance to COVID-19 patients. It is classified according to the severity of the covid 19 infection. COVID-19 - critical Pneumonia, this is for patients who are confined in the intensive care unit. The benefits are 786,384.00 PHP, the COVID-19 -

Severe Pneumonia benefits were 333,519.00 Php, the Covid-19-Moderate Pneumonia 143, 267.00 PHP, and the COVID-19 Mild Pneumonia 43,997.00 Php (Philhealth, 2021).

Participant 2 said "I received help from the Government Service Insurance System, Department of Health, from the Local Government Unit, we have also Special Risk Allowance from the Department of Health, 15k from the Department of Health monthly, from my barangay, they gave me 5 kilos of rice."

Participant 4 said, "My 10 days of hospitalization is free, that is the policy of the hospital. So, on my 11th day, they send me home and I was put to quarantined in the barangay facility. Our LGU gave us groceries and disinfectants in our surroundings".

Theme 6. Coping Mechanisms of COVID-19 Survivors

Coping mechanisms are the strategies people often use in the face of stress and trauma to help manage painful or difficult emotions and experiences. Coping mechanisms can help people adjust to stressful events while helping them maintain their emotional well-being. (Updegraff & Taylor, 2021). The study participants mentioned coping mechanisms to combat COVID-19, lifestyle modification, trusting God, having a positive outlook in life, and following health protocols and vapor therapy

Subtheme 6.1. Lifestyle Modification. Lifestyle modification, including diet, exercise, and tobacco cessation, is the first-line treatment of many disorders, including hypertension, obesity, and diabetes. (Shoebill et al., 2020). Some participants have co-morbidities that need attention to avoid contracting again into another strain of coronavirus. They have done lots of lifestyle modifications. All of them said that they have a proper diet and exercise. Take vitamins and minerals, especially vitamin C. Adherence to home medications and maintenance drugs. Take a rest and get enough sleep. Drink plenty of water. In terms of alcohol intake, drink moderately. Do some yoga and expose yourself to the sun's rays for more Vitamin D. Have relaxation techniques like a movie marathon, doing TikTok, deep breathing exercises, and gardening. In the study of Bersamina et al., (2021), stated that prisons have a lot of physical exercises to do away with sickness, especially with the threat of COVID-19.

Participant 1 said "I exercise, I eat nutritious food, drink my medicines, my vitamins, I sleep, and take a rest. I drink plenty of water".

Participant 2 said, "Eat even if you don't like to eat. Eat fruits, high protein diet for recovery, continuous taking in vitamins. I do tiktok. Since this is my second life. I exercise Live life to the fullest. I did yoga and got the dose of the sun.".

Subtheme 6.2. Deep Faith in God. According to Hlahla, (2022), faith strengthens people in times of trials and troubles. The participant's

experience during the coronavirus infliction showed the difference before, during, and after they survived. Many prayed a lot, and their perception of their faith in God changed. Prayers are their weapon in fighting the disease because they cannot see the virus through their naked eyes. God is their protection and healer, and they believe God made a miracle for them. A new life, a new beginning to this world. Praying the Holy Rosary also help them to overcome the disease. As a component of post vicarious trauma growth of the respondents, some experienced positive changes in their spirituality. They became more prayerful and after realizing the struggles of their clients. They realized that one must have something to hold on to when dealing with life's troubles (Frorentino, 2020).

Participant 5 and 6 said, "God is my protection; God is my healer. I prayed so much and cried." "Prayers are my weapon in every trial in my life".

Subtheme 6.3. Following Strickly the Health Protocols. The Inter-Agency Task Force in the Philippines, headed by the Department of Health's secretary, advises the proper health protocols to the citizenry. On March 8, 2020, Resolution nos. 25, recommendations relative to the management of the coronavirus disease 2019 (covid-19) situation recognized that the Coronavirus Disease 2019 (COVID-19) pandemic requires the mobilization of a whole-of-government response. President Rodrigo Roa Duterte declared a State of Public Health Emergency in the Philippines through Proclamation No. 922 (Department of Health, 2021).

Participants 1 and 3 said "I always follow the health protocols now".

Conclusions

Several significant statements from the nine participants were extracted from the interview transcripts to generate meanings from their verbatim responses. Six main themes and 15 sub-themes explained the experiences of COVID-19 survivors. This study showed that all walks of life could be victims of covid -19. Another finding revealed that the negative antigen result does not guarantee that the patient is negative for COVID-19. It is always best to confirm it by RT-PCR Test. Different signs and symptoms felt by the participant have different treatment modalities. Treatments include antiviral drugs, antibiotics, mechanical ventilation, oxygen therapy, intravenous therapy, massage therapy, probiotics, and anti-diarrheal drugs. This study also proved that massage during the recovery period could help alleviate muscle stiffness and weakness as one of symptoms. Intravenous therapy is a great help in preventing dehydration since the survivor experience covid diarrhea. Government support, like Philhealth, is a great help for the financial burden of hospitalization.

Tender loving Care from the health workers helped the participants in the fast recovery. There is a lack of health care providers during the pandemic. Lifestyle modification, which includes proper diet, exercise, taking of vitamins and minerals, yoga, exposure to the sun, taking of maintenance drugs, a healthy and clean environment, enough rest and sleep, and increasing fluid intake, may help combat COVID-19, following health protocol to avoid contracting the virus. Most of all, faith in God for healing and miracles is a great help for survivors Policymakers, the Department of Health, the Inter-Agency Task Force, community leaders, healthcare workers, and advocates should continue to work together to help COVID-19 survivors by developing and strengthening programs and policies that assist the covid patients during and after the infliction.

Furthermore, understanding the patient's disease signs and symptoms should serve as a basis for developing medications and treatments for covid patients. They should adopt the coping mechanisms presented in this study because it may help them recover, as proven by the survivors. Further study is also recommended in a wider and broader scope.

Study limitations

While our findings are important to a growing literature on the thoughts, feelings, and experiences of COVID-19 survivors, we note several important limitations to consider in interpreting and generalizing this work. It is important to note that our data were collected during an early phase of the pandemic in the Philippines. Nearly the peak months of exposure to risk, media conversations, social media hype, fear, and worry mean something different today than in March 2020. The participants were limited only to those who have not received Covid – 19 vaccinations. Likewise, we would anticipate that as the curve begins to flatten, businesses open, and pandemic restrictions eased, fear, worry, and threat would gradually decline.

Bibliography

- Avila, EM., C. & Acena, M. Q. (2020), Resiliency of Students with Parents Living in Alternative Family Arrangement, Asian Journal of Education and Human Development (AJEHD), (Vol. 1, pp.116-127) https://ajehd.unp.edu.ph/index.php/ajehd/article/view/26
- 2. Bandyopadhyay, N., & Agarwal, R. (2022). Self-esteem, normative influence, positive affect, and variety seeking-an integrated framework. International Journal of Indian Culture and Business Management, 26(4), 446–459 https://doi.org/10.1504/IJICBM.2022.125222

- 3. Bekema, J. D. L. C. (2021). Pandemics and the punitive regulation of the weak: experiences of COVID-19 survivors from urban poor communities in the Philippines. Third World Quarterly, 1-17. https://doi.org/10.1080/01436597.2021.1913407
- 4. Bersamina, D.R, Rilveria, L.A., & Tolio W.R. (2022). Grasp Behind Bars: The Persons Deprived of Liberty Lived Experiences. The Asian Journal of Education and Human Development (AJEHD), 2(1). Retrieved from https://ajehd.unp.edu.ph/index.php/ajehd/article/view/26
- Bless, H., Clore, G. L., Schwarz, N., Golisano, V., Rabe, C., & Wölk, M. (1996). Mood and the use of scripts: Does a happy mood really lead to mindlessness? Journal of Personality and social psychology, 71(4), 665. https://psycnet.apa.org/doi/10.1037/0022-3514.71.4.665
- Center for Disease Control and Prevention, Data and Surveillance", https://www.cdc.gov/coronavirus/2019-ncov/cases-updates > [accessed 13 November 2021].
- 7. Center for Disease Control "Coronavirus 2019 lab Resources Antigen Test Guidelines" https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.htm >[[accessed 5 January 2022]
- COVID-19 Cases, Deaths, and Trends in the US|CDC COVID Data Tracker; Centers for Disease Control and Prevention", https://covid.cdc.gov/covid-data-trackerfiles/3862/covid-data-tracker.html [accessed on 23 May 2021].
- 9. Cleveland Clinic" COVID-19 and PCR Testing". https://my.clevelandclinic.org/health/diagnostics/21462-covid-19-and-pcr-testing20 > [accessed 20 December 2021].
- 10. Covid-19 Coronavirus Pandemic, < https://www.worldometers.info/coronavirus/> [accessed 24 May 2021].Cleveland Clinic "Mechanical Ventilation," < https://my.clevelandclinic.org/health/articles/15368-mechanical-ventilation. 0 > [accessed 20 December 2021].
- 11. D'Amico, F., Baumgart, D. C., Danese, S., & Peyrin-Biroulet, L. (2020). Diarrhea during COVID-19 infection: pathogenesis, epidemiology, prevention, and management. Clinical Gastroenterology and Hepatology, 18(8), 1663-1672. https://www.sciencedirect.com/science/article/pii/S154235652030481 X
- Department f Health. Inter-Agency Task Force," The Management of Emerging Infectious Diseases" https://doh.gov.ph/sites/default/files/health-update/IATF-Resolution-No.-25. < [accessed 20 December 2021].
- 13. Discovery points School of Massage. "Advantages of Massage During COVID-19< https://discoverypointschoolofmassage.com/blog/> [accessed 24 May 2020].
- Djukic, B., & Nielsen, C. (2022, July). Mental health status of medical laboratory professionals. In Healthcare Management Forum (Vol. 35, No. 4, pp. 207–212). Sage CA: Los Angeles, CA: SAGE Publications. https://doi.org/10.1177/08404704221088471

- 15. Dietrich, A. (2004). The cognitive neuroscience of creativity. Psychonomic Bulletin & Review, 11(6), 1011–1026. https://link.springer.com/article/10.3758/BF03196731
- 16. Doyle G. R. & Mccutcheon J.A." Clinical Procedures for Safer Patient Care," < https://opentextbc.ca/clinicalskills/chapter/intravenous-therapy-peripheral-and-central-venous-catheters/ < [accessed 20 December 2021].
- 17. Florentino, C.G.A., (2020). Cost of Caring: Vicarious Trauma Among Guidance Councelors and Psychologist, Asian Journal of Education and Human Development (AJEHD) (Vol.1, pp. 21-38)
- 18. Fitzgerald DA, Wong GW. COVID-19: A tale of two pandemics across the Asia Pacific region. Paediatric Respiratory Reviews. 2020. pmid:32768308 https://doi.org/10.1016/j.prrv.2020.06.018
- 19. Hlahla, D. (2022). Through It All: Trusting God through Trials and Tribulations. Christian Faith Publishing, Inc.
- 20. Ho CS, Chee CY, Ho RC. Mental health strategies to combat the psychological impact of COVID-19 beyond paranoia and panic. Ann Acad Med Singapore. 2020;49(1):1–3. pmid:3220039 https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=+Mental +health+strategies+to+combat+the+psychological+impact+of+COVID-19+beyond+paranoia+and+panic&btnG=
- 21. la Marca, G., Barp, J., Frenos, S., Mugelli, A., Galli, L., Calistri, E., ... & Guerrini, R. (2021). Thermal inactivation of SARS COVID-2 virus: Are steam inhalations a potential treatment? Life Sciences, 265, 118801. https://doi.org/10.1016/j.lfs.2020.118801
- Khoshnood, Z., Mehdipour-Rabori, R., Nazari Robati, F., Helal Birjandi, M., & Bagherian, S. (2021). Patients' Experiences of Living with Coronavirus Disease 2019: A Qualitative Study. Evidence-Based Care, 11(1), 44-50.
- Li, Q.; Guan, X.; Wu, P.; Wang, X.; Zhou, L.; Tong, Y.; Ren, R.; Leung, K.S.M.; Lau, E.H.Y.; Wong, J.Y.; et al. Early transmission dynamics in Wuhan, China, of novel coronavirus-infected Pneumonia. N. Engl. J. Med. 2020, 382, 1199–1207. [Google Scholar] [CrossRef] [PubMed] https://www.nejm.org/doi/full/10.1056/NEJMOa2001316
- Lind, M., Mroz, E., Sharma, S., Lee, D., & Bluck, S. (2022). Emerging adults' outlook on the future in the midst of COVID-19: The role of personality profiles. Journal of Adult Development, 29(2), 108-120. https://link.springer.com/article/10.1007/s10804-022-09395-7
- 25. Liu, W., & Liu, J. (2021). Living with COVID-19: a phenomenological study of hospitalized patients involved in family cluster transmission. BMJ open, 11(2), e046128. https://bmjopen.bmj.com/content/11/2/e046128.abstract
- 26. Matthew, T. O. (2021). The Covid-19 Survivors and Their Lived Experience In Personal and Social Life During The Lockdown
- Moradi, Y., Mollazadeh, F., Karimi, P., Hosseingholipour, K., & Baghaei, R. (2021). Psychological reactions of COVID-19 patients to the stress caused by the disease crisis: A descriptive phenomenological study. Perspectives in psychiatric care. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8013209/

- 28. Neff, K. D., Knox, M. C., Long, P., & Gregory, K. (2020). Caring for others without losing yourself: An adaptation of the mindful self-compassion program for healthcare communities. Journal of Clinical Psychology, 76(9), 1543–1562.https://doi.org/10.1002/jclp.23007
- 26. Matthew, T. O. (2021). The Covid-19 Survivors and Their Lived Experience In Personal and Social Life During The Lockdown https://doi.org/10.1097%2FMLR.0000000000001503
- Moradi, Y., Mollazadeh, F., Karimi, P., Hosseingholipour, K., & Baghaei, R. (2021). Psychological reactions of COVID-19 patients to the stress caused by the disease crisis: A descriptive phenomenological study. Perspectives in psychiatric care. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8013209/
- Neff, K. D., Knox, M. C., Long, P., & Gregory, K. (2020). Caring for others without losing yourself: An adaptation of the mindful self-compassion program for healthcare communities. Journal of Clinical Psychology, 76(9), 1543–1562. https://doi.org/10.1002/jclp.23007 https://doi.org/10.1002/jclp.23007
- Özdin, S., & Bayrak Özdin, Ş. (2020). Levels and predictors of anxiety, depression and health anxiety during COVID-19 pandemic in Turkish society: The importance of gender. International Journal of Social Psychiatry, 66(5), 504-511. https://journals.sagepub.com/doi/pdf/10.1177/0020764020927051
- Pakpour, A. H., & Griffiths, M. D. (2020). The fear of COVID-19 and its role in preventive behaviors. Journal of concurrent disorders, 2(1), 58–63. https://concurrentdisorders.ca/2020/04/03/the-fear-of-covid-19-and-its-role-in-preventive-behaviors/
- 31. PGIS Action Center, "Coronavirus Disease tracker province of Ilocos Sur" < accessed 10 December 2021].
- 32. PhilHealth, "Philhealth Benefit Packages for Covid", < https://www.philhealth.gov.ph/covid/.>[accessed 20 December, 2021].
- Sahoo, S., Mehra, A., Suri, V., Malhotra, P., Yaddanapudi, L. N., Puri, G. D., & Grover, S. (2020). Lived Experiences of COVID-19 Intensive Care Unit Survivors. Indian Journal of Psychological Medicine, 42(4), 387. https://journals.sagepub.com/doi/pdf/10.1177/0253717620933414
- 34. Shahsavari S, Holur P, Wang T, Tangherlini TR, Roychowdhury V. Conspiracy in the time of corona: Automatic detection of emerging COVID-19 conspiracy theories in social media and the news. J Comput Soc Sci. 2020:1–39. pmid:33134595, https://link.springer.com/article/10.1007/s42001-020-00086-5
- 35. Schuman, E. (1976). Stages of Illness and Medical Care, Journal of Health and Human Behavior, Volume 6, pp.114–128. https://www.jstor.org/stable/2948694
- 36. Son, H. M., Choi, W. H., Hwang, Y. H., & Yang, H. R. (2021). The Lived Experiences of COVID-19 Patients in South Korea: A Qualitative Study. International Journal of Environmental Research and Public Health, 18(14), 7419. https://doi.org/10.3390/ijerph18147419
- 37. Struyf, T., Deeks, J. J., Dinnes, J., Takwoingi, Y., Davenport, C., Leeflang, M. M., ... & COVID, C. (2021). Signs and symptoms to determine if a patient presenting in primary care or hospital outpatient settings has

- COVID-19. Cochrane Database of Systematic Reviews, (2). https://doi.org/10.1002/14651858.CD013665.pub3
- Tran BX, Phan HT, Nguyen TPT, Hoang MT, Vu GT, Lei HT, et al. Reaching further by Village Health Collaborators: The informal health taskforce of Vietnam for COVID-19 responses. Journal of Global Health. 2020;10(1). pmid:32509285 https://www.jogh.org/documents/issue202001/jogh-10-010354.pdf
- 39. Shoenbill, K., Song, Y., Gress, L., Johnson, H., Smith, M., & Mendonca, E. A. (2020). Natural language processing of lifestyle modification documentation. Health informatics journal, 26(1), 388–405, https://journals.sagepub.com/doi/pdf/10.1177/1460458218824742
- Updegraff, J. A., & Taylor, S. E. (2021). From vulnerability to growth:
 Positive and negative effects of stressful life events. In Loss and trauma
 (pp. 3–28).
 Routledge,https://www.taylorfrancis.com/chapters/edit/10.4324/9781
 315783345-2/vulnerability-growth-positive-negative-effects-stressful-life-events-john-updegraff-shelley-taylor
- 41. United Nations Children's Fund, "Stories of Covid -19 Survivors", https://www.unicef.org/nigeria/stories/covid-19-survivor.> [accessed 24 May 2021].
- 42. Vannoni M, McKee M, Semenza JC, Bonell C, Stuckler D. Using volunteered geographic information to assess mobility in the early phases of the COVID-19 pandemic: a cross-city time series analysis of 41 cities in 22 countries from March 2nd to 26th 2020. Global Health. 2020;16(1):85. pmid:32967691, https://globalizationandhealth.biomedcentral.com/articles/10.1186/s1 2992-020-00598-9
- 43. Viner, R. M., Ward, J. L., Hudson, L. D., Ashe, M., Patel, S. V., Hargreaves, D., & Whittaker, E. (2021). Systematic review of reviews of symptoms and signs of COVID-19 in children and adolescents. Archives of disease in childhood, 106(8), 802–80, https://adc.bmj.com/content/106/8/802.abstract
- 44. Xiong J, Lipsitz O, Nasri F, Lui LM, Gill H, Phan L, et al. Impact of COVID-19 pandemic on mental health in the general population: A systematic review. Journal of affective disorders. 2020, https://doi.org/10.1016/j.jad.2020.08.001
- 45. Wang, C., Tee, M., Roy, A. E., Fardin, M. A., Srichokchatchawan, W., Habib, H. A., ... & Kuruchittham, V. (2021). The impact of the COVID-19 pandemic on physical and mental health of Asians: A study of seven middle-income countries in Asia. PloS one, 16(2), e0246824 https://doi.org/10.1371/journal.pone.0246824
- 46. Weekley, M. S., & Bland, L. E. (2021). Oxygen administration. In StatPearls [Internet]. StatPearls Publishing, https://www.ncbi.nlm.nih.gov/books/NBK551617/
- 47. Wong SY, Kwok KO, Chan FK. What can countries learn from Hong Kong's response to the COVID-19 pandemic? CMAJ. 2020;192(19): E511–E5. pmid:32332040, DOI: https://doi.org/10.1503/cmaj.200563

- 48. World Health Organization, Covid Emergencies in the Philippines ", https://www.who.int/philippines/emergencies/covid-19-in-the-philippines [accessed 18 November 2020].
- 49. World Health Organization, "Corona Virus Disease,">https://www.who.int/health-topics/coronavirus#tab=tab_> [accessed 18 November 2020].
- 50. World Health Organization" Coronavirus (COVID-19) cases, recoveries, and deaths worldwide", <,https://www.who.int/healthtopics/coronavirus#tab=tab_1>18 November 2020).
- 51. Wu, L., Dong, Y., Li, J., Huang, J., Wen, D., Peng, T., & Luo, J. (2020). The effect of massage on the quality of life in patients recovering from COVID-19: a systematic review protocol. Medicine, 99(23). Medicine 99(23):p e20529, June 05, 2020. | DOI: 10.1097/MD.00000000000020529
- 52. Yusefi, A. R., Sharifi, M., Nasabi, N. S., Rezabeigi Davarani, E., & Bastani, P. (2022). Health human resources challenges during COVID-19 pandemic; evidence of a qualitative study in a developing country. PloS one, 17(1), e0262887 https://doi.org/10.1371/journal.pone.0262887
- 53. Zhai J. Facial mask: A necessity to https://doi.org/10.1016/j.buildenv.2020.106827 beat COVID-19. Building and Environment. 2020. pmid:32287995