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FINAL RESEACH THESIS



LIVED EMOTIONAL EXPERIENCES OF FRONTLINE HEALTH CARE PROVIDER OF
PATINTS WITH COVID-19 WHO ARE WORKING AT EKA KOTEBE GENERAL
HOSPITAL ADDIS ABABA, ETHIOPIA 2020

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Title of the study

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Abstract

Background

The pandemic of 2019 coronavirus disease (COVID-19) has burdened and caused psychological impacts on people around the world, especially on the health workers. This study focuses on assessing the lived emotional experiences of frontline healthcare workers at eka-kotebe hospital.

Objective -To explore the lived emotional experience of frontline health care workers caring for COVID-19 patients at eka-kotebe hospital which is serving as a center for patients who are positive for coronavirus

Method: A qualitative study was done on frontline health workers of covid-19 patients at eka-kotebe hospital which currently serving as a center by using semi-structured questions that were prepared after referring different articles done on the issue and undergoing a 35-50 min. phone interview and the result was analysed using thematic analysis

Finding: The lived emotional experiences of front line health care workers caring for COVID-19 patients can be summarized into four themes. Summarised the findings into four themes: Firstly, significant amounts of negative emotions dominated initially and decreased with time, consisting of anxiety, fear, and sadness, was caused by the new working environment and challenges experienced as the result of nature the illness, which impacted the quality of care that the caregiver was provided initially. Secondly, living under pressure, which included new challenges occurred, fear of being infected and professional responsibilities and thirdly, changes, coping style, and support, which included life changes resulted negative emotions Life adjustment negative advice initially about the service from significant other support obtained from significant other, staff and institution and finally, issues related to the service

Conclusions: This epidemic outbreak resulted significant negative emotions on the front-line health workers which impacted their service greatly. In the early stage, negative emotions were dominant, calmness, relaxation, emotional stability and adaptation to the situation appeared gradually. Self-coping styles and support obtained from the system as well as from significant others played an important role in maintaining the mental health or emotional stability of front line health workers.

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Acronyms

CDC-central disease control

Cov-19-corona virus 2019

Covid-19-corona virus disease 2019

G.C-Gregorian calendar

HCW-health care workers

MERS-middle eastern respiratory syndrome

SARS- severe acute respiratory syndrome

RNA-ribonucleic acid

WHO-world health organization

BACKGROUND

Corona-viruses are enveloped RNA viruses belonging to the family Coronaviridae and largely distributed in humans and other mammals. Though most human coronavirus infections are mild, the epidemics of the 2 beta coronaviruses, severe acute respiratory syndrome coronavirus (SARS-CoV.) and Middle East respiratory syndrome coronavirus (MERS-CoV) have caused more than 10 000 cumulative cases in the past twenty years, with mortality rates of 10% for SARS-CoV and 37% for MERS-CoV(1). In late 2002, cases of life-threatening respiratory disease with no identifiable cause were reported from Guangdong of China and followed by reports from Vietnam, Canada, and Hong Kong of severe febrile respiratory illness that spread to household members and health care workers. The syndrome was designated “severe acute respiratory syndrome” (SARS) in March 2003, and global efforts to grasp the reason for this illness and forestall its spread was started immediately. Many cases were linked to a health care worker from Guangdong Province, China, who visited Hong Kong, where he was hospitalized with SARS and died. Clinical specimens from patients meeting the case definition of SARS were sent to the Center for Disease Control and Prevention (CDC) as part of the etiologic investigation. None of the formerly described respiratory pathogens were consistently identified. However, a unique novel coronavirus was isolated from patients who met the case definition of SARS (2).

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a newly discovered ribonucleic acid coronavirus isolated and identified from patients with unexplained pneumonia in Wuhan city Hubei province of China in December 2019 (3). Before it was named by the International Committee of Viral Classification on 12 February 2020, it was called 2019-nCoV and caused infection of hundred thousand and death more than 3 thousand in china alone later it spread to almost all nations of the world finally World Health Organization (WHO) declared it as a pandemic in march after SARS and MERS (4).Recently, about 2 million cases and a death toll of more than 2 hundred thousand reported and has led to an unprecedented state of emergency worldwide. Of all these aspects, mental health is a vital part of the situation and in the disturbed times of this nature, the mental health care of people at different levels carries great importance in promotion, prevention, and clinical care. This is the time to bring to the attention of the general population the importance of mental health in our day-to-day life and this

global situation may have a negative impact on the emotional well-being of individuals which in turn impacts individuals' performance (5). Previous studies have shown health care workers who were in close contact with patients with emerging infectious diseases such as SARS MERS-Cov, Ebola appeared to have chronic stress, depression, and anxiety and suggested that front-line staff could benefit from stress management as part of the preparation for future outbreaks (6). In the fight against the 2019 novel coronavirus, health workers in Wuhan were faced enormous pressure, including a high risk of infection and inadequate protection from contamination, overwork, frustration, discrimination, isolation, patients with negative emotions, an absence of contact with their families, and exhaustion. The severe situation is causing mental health problems like stress, anxiety, depressive symptoms, insomnia, denial, anger, and fear. These mental health problems not only affect the medical workers' attention, understanding, and decision-making ability, which could hinder the fight against the disease but could even have an extended period effect on their overall wellbeing. Generally, the mental health frontline health workers should be protected in order to control the epidemic and their own long-term health (7).

Currently, the outbreak also affected our country where the number of patients with the virus is increasing every day with a recent report of 100+ patients who are positive for the virus and getting support at Eka- Kotebe Hospital which is the first center to be designated for covid-19 patients care and health care professional who are trained are serving them and death of 5 patients were also reported recently due to the infection. Since the condition is new for our country and almost all African country we have no experience of handling outbreaks of the condition of the current type. As reported in other countries who previously faced the pandemic related to different type the condition caused enormous mental health problem for both the health care provider and the general public, recently few studies are coming out from countries like China which was affected and the epicenter of the recent outbreak before the virus spread to other nations with a tittle of psychological and emotional experiences which suggested the pandemic caused significant mental health burden on the health care provider so this research will provide an overview about the influence of COVID-19 on the mental health of frontline health care provider, how that condition affected the care and addressed respectively. Most of the articles

for this particular study were collected using the references of 2 main articles recently published.

Research question

1. What are the lived emotional experience of frontline health care provider of covid-19 patients at eka-kotebe corona center?
2. How those experiences affected the health care workers and addressed?

LITRATURE REVIEW

It is well-known that communicable disease epidemics can have a considerable impact on healthcare workers, as a result of increased workload, uncertainty about the pathogenicity of the causative agent, and anxiety about becoming infected. However, there is limited knowledge of the impact of a pandemic on healthcare workers (8-9). Health care workers (HCWs) assumed a key role, facing an increasing workload and a perception of increased risk of infection, as in any infectious disease outbreak, and this could possibly affect their psychological well-being. According to psychologist Richard Lazarus' stress and coping model, whether or not the stressors are effective depends principally on the process of cognitive evaluation and coping. Few researches were done on the impact that previous disease outbreaks of different origin had on the mental health issue of HCW's and shown that many HCWs presented with high levels of psychological distress or emotional instability, frequent concerns regarding their health and their families' health, worries about their functional ability and fears of stigmatization (10-15). Concerning the current outbreak, very few researches are coming out especially from the initial epicenter which is the Hubei province of China.

A qualitative investigation done in 2015G.C on the social and emotional impact of delivering health services was done on 35 frontline health care providers working in eight peripheral health units from two districts during Sierra Leone's Ebola pandemics. They reported that changes in their professional, personal, and social lives occurred as they became the first responders during outbreak. A theme extracted from the interviews were Ebola's destruction of social connectedness and a way of trust within and across health facilities, communities, and families which they described feeling lonely, ostracized, unloved, afraid, saddened, and not respected. They also reported restrictions on behaviors that enhance coping including attending burials and engaging in physical contacts (hugging, handshaking,

sitting near, or eating with colleagues, patients and family members). They mentioned that infection prevention measures as necessary but divisive because screening booths and protective equipment inhibited bonding with patients. And the study concluded that to reduce psychiatric morbidities, maladaptive coping mechanisms and to prevent the spread of Ebola, the concerned individual or institution must consider the psychosocial context of this disease and mechanisms to improve psychological first aid to all health providers (16)

A qualitative study was done on the experiences of health care workers employed in an Australian intensive care unit during the H1N1 Influenza pandemic of 2009: the data was collected using an open-ended questionnaire and involved 5 focus groups, the data were analysed using Colaizzi's framework to discover regular patterns of meaning that emerged and eight common themes have extracted which articulate the lived experience of the staff during the peak of the H1N1 Influenza pandemic period these themes were: wearing of private protective equipment; infection control procedures; the fear of contracting and transmitting the disease; adequate staffing levels within the medical care unit; new roles for staff; morale levels; education regarding extracorporeal membrane oxygenation; and thus the challenges of patient care. And finally the study reported that the upkeep of effective communication channels is crucial; and therefore the increased staffing requirements across nursing, medical, allied health, and extra staffs to cope with the higher patient numbers (17).

A retrospective qualitative study was done in 2015 G.C, in Saudi Arabia on exploring the experience of health workers who served as a care provider and later acquired the infection. MERS (Middle Eastern respiratory syndrome) which occurred in 2015 in Middle East countries. The participants were 4 nurses and 3 physicians with an almost equal number of female (n=3) and male (n=4) who were frontline health workers admitted to the hospital with a confirmed case and improved later they were interviewed directly after getting their consent and the result stated the outbreak created fear and panic among health care provider sustained stigma and prejudice from other staffs and later when they become quarantined the sustained total isolation which was a very traumatic period for most of the participants (22).

A qualitative study which was done in South Korea after the MERS-Cov outbreak in 2017, on the experience of nurses caring or MERS-Cov patients

and 12 nurses working at general hospitals participated, and they were recruited from 4 hospitals; there were 8 female and 4 male participants with experience caring for MERS-CoV patients and selected using snowball sampling, the data were collected using individual in-depth interviews, and a semi-structured questions which were as follows: 1) What kind of experience did you have while caring for MERS-CoV patients? 2) What kind of experience did you have after caring for MERS-CoV patients? 3) What would you like to suggest for infected patient care? And finally, 5 themes were developed which were: Going into a dangerous field, Strong pressure because of MERS-CoV, the strength that makes me endure, Growth as a nurse, and Remaining task. The study finally concluded that it is necessary to develop strategies to protect healthcare providers from severe physical and psychological stress during the pandemic (23).

A cross-sectional study done in 2020 on The psychological impact of the COVID-19 epidemic on college students the participants were 7143 undergraduates of Changzhi medical college in china they were sampled by using cluster sampling and the participants responded to the 7-item Generalized Anxiety Disorder Scale (GAD-7) which is a structured questionnaire and the results indicated that 0.9% of the participants were experiencing severe anxiety, 2.7% moderate anxiety, and 21.3% mild anxiety. Moreover, living in urban areas (OR = .810, 95% CI = .709 - .925), family income stability (OR = .726, 95% CI = .645 - .817) and living with parents (OR = .752, 95% CI = .596 - .950) were protective factors against anxiety and therefore the study recommended that the psychological state of school students should be monitored during epidemics (24).

Another cross-sectional study was done in 2020 on the psychological status of the medical workforce of covid-19 pandemic in Fujian Provincial Hospital of China. The Incidence of fear, anxiety, and depression were measured by the numeric rating scale (NRS) on fear, Hamilton Anxiety Scale (HAMA), and Hamilton Depression Scale (HAMD), respectively via the web questionnaire. A total of 2299 eligible participants were enrolled from the authors' institution, including 2042 medical staff and 257 administrative staff. The severity of fear, anxiety, and depression were significantly different between the two groups. Additionally, as compared to the non-clinical staff, front line medical workers with close contact with infected patients, including working within the departments of respiratory, emergency, communicable disease , and ICU, showed higher scores on the fear scale, HAMA, and HAMD, and they were 1.4

times more likely to feel fear, twice more likely to suffer anxiety and depression (25). Recently done a qualitative study in china on the experiences of health-care providers during the COVID-19 crisis in 2020 on 13 health care providers (9 nurses and 4 physicians) who were recruited from five COVID-19-designated hospitals in Hubei province using purposive and snowball sampling. A semi-structured, in-depth interview was done by telephone from Feb 10 to Feb 15, 2020, and three theme categories emerged from data analysis the first was being fully responsible for patients' wellbeing—"this is my duty". Health-care providers tried their best to provide care for patients. Nurses had played an important role in providing medical care and assisting with activities of daily living. The second category was the challenges of performing on COVID-19 wards. They also faced a lot of challenges by working in a totally new setup, exhaustion due to heavy workloads and protective gear, the fear of becoming infected and infecting others, feeling powerless to handle patients' conditions, and managing relationships during this stressful situation. The third category was resilience amid challenges. Health-care providers identified many sources of social support and used self-management strategies to deal with things. The result reported that: comprehensive support should be provided to safeguard the wellbeing of health-care providers (27).

Finally, a qualitative study was done on 20 nurses who provided look after COVID-19 patients at the Hospital of Henan University of Science and Technology in Henan province of China from January 20, to February 10, 2020, on the psychological experience of caregivers of covid-19 using a semi-structured questionnaire, the interviews were conducted by telephone and the psychological experience of nurses caring for COVID-19 patients summarized into 4 themes which were: negative emotions present within the early-stage consisting of fatigue, discomfort, and helplessness was caused by high-intensity work, fear and anxiety, and concern for patients and members of the family, self-copying styles included psychological and life adjustment, altruistic acts, team support, and rational cognition, growth under pressure, including increased affection and gratefulness, development of professional responsibility, and self-reflection, positive emotions occurred simultaneously with negative emotions. The result concluded that self-copying styles and psychological growth played an important role in maintaining the mental health of nurses during the epidemic outbreak, positive and negative emotions of the front-line nurses interweaved, and coexisted. In the early stage, negative emotions were dominant and positive emotions appeared gradually. (28)

Significance of the study

The study was analysed the lived emotional experience of frontline health workers of covid-19 patients and investigated what emotional experiences mostly reported by the professional working at eka-kotebe hospital. This study is also essential for evaluating the mental health-related issues of covid-19 especially on health care providers and the impact on the service and might give an entry point to address those issues timely and effectively to improve the overall service.

Definition of important terms/operational definition/

Corona virus disease 2019 (COVID-19)-is defined as illness caused by a novel coronavirus now called severe acute respiratory syndrome coronavirus 2 (SARSCoV-2 (2)).

Patient with covid-19 -defined as patients who are tested positive for the virus (SARS-CoV-2) and have clinical feature ranging from asymptomatic to ARDS

OBJECTIVE

General objective

To explore the lived emotional experience of frontline health care workers caring for COVID-19 patients.

Specific objective

✓To explore what kinds of emotional experiences they experienced during their course of stay at the service

✓ to describe how those emotional experiences affected the day to day services that the care provider is providing

✓ Describe the ways of coping with difficult emotional experiences that they face during the service daily

Methodology

Study design

A qualitative was conducted to explore and describe the lived emotional experience of frontline health care provider who are caring for patients with COVID-19 between mid -July 2020- mid August 2020

Study setting

The study was conducted on healthcare provider of covid-19 patients at eka-kotebe general hospital located in Addis Ababa and it is one of the center currently serving for treating and following covid-19 patients from March till now with a capacity of 400+ patients

Study subjects/participants

Frontline health workers who are working at Eka-Kotebe general hospital on patients with COVID-19 (nurses, physician and other frontline health works who are serving there) volunteered to participate in the study.

Sampling technique

Participants were recruited by using a snowball/participant recommending other participant/ and purposive/based on the need of the research/ sampling method (31).

Sample size

The sample size was determined by data saturation—i.e. at the point where no new topic from participants' (health care workers) experiences emerged and about 9 HCW/5 nurses and 4 physician/ were participated in the study, equal number of physician nurses other professionals/those who serve in the ICU team / was tried to be included and equal number of sexes was also tried to be included in the study but the proportion was depended on the inclusion criteria listed below.

Data collection

Study participants communicated the aim and significance of the study earlier and scheduled the interview time at their convenience time. A semi-structured interview guide consisting of open-ended questions was accustomed collect data during the individual in-depth interview which was prepared before the main interview questions posed to the participants were the following: (1) what are the most common emotional feelings of care providers for COVID-19 patients? (2) What are your coping strategies? And (3) what are your insights within the face of the epidemic? Additionally, we asked the subsequent sub-questions: (1) how did you feel when accepting the anti-epidemic task? (2) How do you feel when you are working with COVID-19 patients? (3) What has changed in your life? (4) How do you cope with changes in your work and life? (5) What support did you get from significant others during this task? (6) How do you describe the system/care? And future suggestion. The interviews took 35– 50 minutes per person. When the participant exhibited emotional problems during the interview, adequate psychological intervention was provided to forestall secondary psychological harm. The researcher remained neutral in collecting the knowledge and established good relationships with the participants. We used techniques like unconditional acceptance, active listening, and clarification to promote the authenticity of knowledge and to avoid bias. For each participant, telephone interviews were arranged for data collection based on the time where the participants were comfortable for the interviews/free time/ the interviews were recorded by using a phone voice recording application.

Data analysis

The recordings of the interview transcribed verbatim into Amharic and then translated into English by me and another person who is good in both languages and a total of 66 pages of translated data resulted, the original Amharic transcripts and the translated version compared and there was no significant difference identified. Finally, the materials reviewed independently by another professional person who is not in the study then meaningful statements were extracted summarized, and to formulate the themes present by using thematic analysis. Conflicting opinions on the contents of the themes were discussed and resolved by those involved.

THEMATIC ANALYSIS

A type of qualitative analysis used to analyse classifications and present themes (patterns) that relate to the data. It illustrates the data in detail and deals with different subjects via interpretations. Allows the researcher to associate analysis of the incidence of a theme with one of the whole content. This will confer accuracy and intricacy and enhance the research's whole meaning (30).

The inclusion criteria

Includes (1) health care workers (HCW) who are serving as a frontline care provider for COVID-19 patients at the center and (2) volunteers/those who can give consent/

The exclusion criteria

Inability to conduct an interview, those who didn't consent during the study period, those who are not serving at the center during the study period and those who are not health care professionals specifically nurse, physician or other was not included.

Ethical Consideration.

Ethical permission was obtained from the Department of Psychiatry, College of Health Sciences, Addis Ababa University, and ethics committee of Eka-kotebe general Hospital. The Names of the health workers who participated in the study was not mentioned to keep the confidentiality they were labelled as participant physician/Pp1, Pp2, Pp3/ or participant nurse/Pn1, Pn2, Pn3/.

Dissemination of result

The final result will be disseminated to the department of psychiatry, AAU, center/eka-kotebe hospital/ and to the HCW who are involved in the study/soft copy, via e-mail or other possible ways and if possible to the ministry of health

Fund for the research

Addis Ababa University/AAU/ provided around 25,000 Ethiopian birr to conduct a research for their fulfilment of the course even if it is not always constant and timely, we are expected to conduct a research considering that money as a budget

FINDINGS

In this study, we enrolled four males and five females professionally four of them were general practitioner /GP/ and five of them were nurses with age range of 25 to 33 with an average age of 29. All nurses possessed a bachelor's degree and the remaining four are general practitioner/GP/. One nurse and one physician were married with children, the other one physician and one nurse were married without children, and five were unmarried without children.

Table 1. Baseline characteristics of participants (n =9)

Characteristics		Number	Range
Age			25-33yrs
Number of interview		1	
Religion	Muslim	2	
	Christian	7	
Gender	Male	4	
	Female	5	
Profession	Nurse	5	
	Physician	4	
Marital status children	Married	2	
	Single	7	
Children	No	7	
	Yes	2	

I explored the lived emotional experiences of caregivers of patients with COVID-19 at eka-kotebe hospital using phenomenological methods. After the analysis was done by using thematic analysis four main themes and a total of nine sub-themes under those themes were extracted these are:

I). A significant amount of negative emotions dominated initially which decreased with time (Sub-themes; i. fear, Distress, being scared, depression, and hopelessness caused by new working environment or experiences and nature of the illness ii. Impact of negative emotions on care) **II).** Living under pressure (Sub-themes: i. new challenges ii. Fear of being infected iii. Professional responsibility) **III).** Changes, coping style, and support (Sub-themes: I. Life changes resulted in negative emotions ii. Life adjustment iii. Negative advice initially about the service from significant other iv. Support obtained from significant other, staff, and institution) and **IV).** Issues related to the service and the findings discussed in detail with the corresponding quotes of the participants below.

SIGNIFICANT AMOUNT OF NEGATIVE EMOTIONS DOMINATED INITIALLY WHICH DECREASED WITH TIME

All study subjects experienced a significant amount of negative emotions during initial period of their stay in the service, especially the first time when they faced COVID-19 patients.

“When the first patient came there was a great fear, we panicked and it was a very scary moment, when a patient first came we wondered who should treat him we were so scared, and panicked.” (P#4, male Age 33, single, profession: nurse).

“There was a feeling of panic and fear especially when I encountered my first patient because the work is new for our country and the disease is risky and doesn’t have medication, and since it needs caution”(P#9, age,30, male, profession: physician).

“It was scary and depressive at first, especially when you see the COVID patient for the first time because you fear getting infected and wonder what if I die.”(P#8, age 30, female, profession: nurse)

As the number of patients continued to rise with time, the workload of all participants increased which resulted in discomfort and helplessness, in addition, failing to meet their loved one, staying in the center isolated from the society and their previous routines combined with the nature of the illness resulted in a sense of fear, hopelessness, distress and other negative symptoms in almost all of the participants.

“There was a feeling of exhaustion when the patients were increasing and there was also getting tired of it and there were times you had to change clothes two or three times and that was a bit tiresome and made you feel hopeless” (P#4, male Age 33, single, profession: nurse).

“You feel tired of increasing workload especially when the patient number increased, you miss going home, wanting to disappear and go back to our previous lives. You are living in stress here you feel kind of discriminated against when you can’t go out as you wish and go to your family and are not able to live with your family.” (P#6, age 28, married, female, profession: physician)

“The first one is that I felt a little hopeless and distress since my interaction with social and family was interrupted and mostly through the phone because it was through the phone and the phone only, there was no direct physical contact, due to that now I feel like getting into depression and getting tired of things and hating things, and even when it is not my turn to work this feelings follow me and I would get tired of things and frustrated” (P#4, age, 33, single male, profession: nurse)

All participants described that their fears, hopelessness, and other negative emotions peaked when they faced covid-19 patients during the initial period of their stay, which then gradually declined as they continued seeing patients.

“It was very hard it makes you lose hope, in the beginning, I used to cry, I didn’t eat, I was so depressed and I also had trouble sleeping but now these feelings have lessened” (P#9, male Age 30, single, profession: physician).

“I was in fear when I faced covid-19 patient initially now there is a confidence that I feel when you get along with people, it gets a little easier.”(P#1, female Age 26, single, profession: physician)

Under the challenges of a new working environment, almost all the health care workers said they felt fear and distress.

“There a kind of distress, when you see family or someone here and in addition there was a case of a mother dying here isolated, so it was very hard seeing these”. (P#4 male Age 33, single, profession: nurse)

“Sometimes you get depressed. Even if it is not always, sometimes get a depressed feeling or you get tired of things as the result of the working environment.”(P#3, age, 30, male, single, profession: physician)

Few of the participants of the study expressed concern about the impact of the outbreak on the health of their families. They also said that their families were also worried about their health.

“They ask when it will be over and how long I will stay and their desire is for me to get out of here safe but I am also worried about their health because outside is not safe” (P#7, age, 33, single, profession: nurse)

Few participants have little children which also contributed to the negative emotions of these participants greatly and particularly worried about their families, especially for their child's health.

“I have a 2-year-old child and since I separated from her abruptly she has a bit of hatred and she doesn’t get close to me like before doesn’t want to talk to me through which made me scared and depressed.” (P#8, age 30, female, profession: nurse)

Most of the participants mentioned that the negative emotions which they experienced initially affected their practices and the care that they were providing to the patient because they were mostly working keeping their distance to avoid any contact with the patients and made providing care closely difficult and most of the care were controlled by the machine

“At first because of the fear we didn’t have any place to pay attention to their feelings. But now we were taking care of them properly, but first we used to concentrate only on those in bad condition”. (P#2 male, Age 28, married, profession: nurse)

“It has some effect, for example, you can’t give services to patients closely. At first, it was hard to measure blood pressure, temperature or do a physical examination, we used to give most of these services using machines due to fear that we might get infected, and because keeping our distance was obligatory, it was not possible to give services fully.”(P#3, age, 30, male, single, profession: physician)

LIVING UNDER PRESSURE

The majority of the participants reported that the changes they experienced challenged them greatly initially and developed calmness and relaxation with time.

“In the beginning, it was challenging, I didn’t work as I did before, I had forgotten all the knowledge that I had, and it was slowly that I returned to being myself”. (P#8, age 30, female, profession: nurse)

“First there was a certain psychological pressure, there was pressure whether or not I should accept it, then I started calming myself by looking at the environment and the situations, I focused on getting straight to care.”(P#5, age, 32, male, single, profession: nurse)

Some of the participants mentioned that they were initially become confused especially while they were in ICU and couldn’t do their work properly because they were in fear of being infected which gradually improved with time.

“Especially ICU care machine modes even were confusing, it was slowly that I learned”. (P#8, age 30, female, profession: nurse)

Most participants expressed that not being able to visit their family, loved one and working under new challenging environment made their stay at the service difficult and depressing and also contributed a lot for their negative emotion initially.

“The situation is painful, leaving my child and my family but this thing did not only come on me it came on the country, I mean I try to convince myself as much as possible.” (P#6, age 28, married, female, profession: physician)

“Well not being able to go to your family and what you are doing are hard and difficult things.”(P#1, female Age 26, single, profession: physician)

All participants initially experienced a fear of getting infected by the virus and it was distressing and scary but relaxed as time goes on.

“I get a bit panicked when sometimes I get a dry cough, apart from this sometimes you get continuous symptoms such as fever and dry cough and immediately disappear, and this created panic at first but now it doesn’t.”(P#5, age, 32, male, single, profession: nurse)

“Well fear and maybe great stress that you might get infected initially but now I am adapted and a bit relaxed” (P#2 male, Age 28, married, profession: nurse)

Majority of the participants mentioned that professional responsibility prompted and strengthened them to participate in the mission to contain the epidemic.

“It was hard at first but when I understood the responsibility I have and when I thought that I had to strengthen not only myself but also others and we are going through things together even in the world we are handling it together.”(P#4 male Age 33, single, profession: nurse)

“You feel proud of yourself because you are professionally responsible that helps you to be more strong and active.” (P#1, female Age 26, single, profession: physician)

More than half of the participants mentioned that although the epidemic prevention work was hard, they started to feel proud of themselves or a big national feeling that strengthened their moral, and increased their courage to face difficulties.

“For me, it was a big national feeling and I am proud of myself being part of this service which is one of the thing that made my stay good.” (P#2 male, Age 28, married, profession: nurse)

CHANGES, COPING STYLE AND SUPPORT

The majority of the participants described that initially the life changes that they experienced as the result of joining the service which they expressed it as a major shift from the previously known professional experiences contributed a lot to their negative emotions like, fear, being scared, depression and hopelessness.

"Wondering will these changes go back to how they used to be is worrisome. In addition when there is this kind of isolation there are some unhappy feelings that come personally."(P#2 male, Age 28, married, profession: nurse)

"what worried me was that when I wore the cloth I had shortness of breath, distress, and discomfort until I took it off so it is hard to work while wearing a PPE until you get used to it" (P#7, age,33, single, profession: nurse)

"When I think about not seeing my child I get really sad, more than I can say, that I can't see her and when I see her I'm forgotten she treats me just like other people, and this makes me worried and really sad".(P#6, age 28, married, female, profession: physician)

Majority of the participants expressed that they activated psychological defence mechanisms, such as speculation, intellectualization, rationalization, etc. they used existing knowledge and new knowledge of psychological mechanisms to adapt to the existing new changes.

"It was hard at first but when I understood the responsibilities I have and when I thought that I had to strengthen not only myself but also others and we are going through things together even in the world we are handling it together" (P#4 male Age 33, single, profession: nurse)

"Now that we know that it is not that much of a killer, and that it affects those with concomitant illness and of old age. I mean most people have already experienced it and we might have gotten used to it."(P#6, age 28, married, female, profession: physician)

"First it is going to pass since it is a pandemic it is known that it will disappear when you think of it(COVID) being temporary you pay attention mostly on the duty you are given" (P#3, age, 30, male, single, profession: physician)

"Since the problem with the corona incidence is interaction with others and always try to protect myself, I took it as good experience and I am living by that." (P#2 male, Age 28, married, profession: nurse)

All participants mentioned that they chose to adjust to the difficult situations that they faced in the service mostly by their religious activities like praying, reading, and listening to spiritual materials.

"Most of the times I go to the church, I listen to spiritual songs and with these, I get a little break and I talk with my husband." (P#8, age 30, female, profession: nurse)

"I talk to my family through the phone and with people here that you talk and there is a church right in front, I just sit outside without getting in." (P#1, female Age 26, single, profession: physician)

All participants initially received negative comments or advice from significant other about the task they are participating and some told them to live from the service but, gradually they changed their approach and become supportive.

"They had great fear they didn't accept it easily and at first they used to ask a lot and used to call often especially when the number of patients was increasing they used to worry a lot, my mother especially still fears, they always think that I will get infected and it was very hard to convince them but with they become supportive." (P#4 male Age 33, single, profession: nurse)

"At first they were very worried, they didn't like it one bit but then I started convincing them, especially after they saw things and understood that the risk is similar they even saw working here as a big advantage and become supportive." (P#1, female Age 26, single, profession: physician)

Almost all participants mentioned the support they got from colleagues, relatives, and friends helped them a lot to lessen the challenges in the new environment negative emotions and played a larger role in their stay at the service which the majority of the participants considered it as a very helpful thing to stay at the service and become more strengthened.

“They used to give me advice like hanging in there, it will pass. In addition to psychological support they also support me with food and things I want and it is very helpful for my stay here.” (P#1, female Age 26, single, profession: physician)

“And the hospital supplies food, house, and PPE as well as emotional support, in the beginning, a tutorial on stress management was given by a physiologist and that was good” (P#2 male, Age 28, married, profession: nurse)

Few participants expressed that working with personal protective equipment (PPE) for long hours was a major physical and professional challenge they sweated and their clothes became wet, they felt discomfort as the result of it caused shortness of breath and difficulty of doing their job properly.

“what troubled me was that when I wore the cloth I had shortness of breath, distress and discomfort until I took it off so it is hard to work while wearing a PPE until you get used to it” (P#7, age,33, single, profession: nurse)

Most participants reported they got some support from the institution mostly material and also reported although the government promised different incentives they didn't received yet and that didn't affected their service.

“And the hospital mostly supplies food, house, and PPE, we didn't have our duty payment but it's not a big for us now” (P#2 male, Age 28, married, profession: nurse)

“The government or the institution covers your food, housing, water and all your expenses which are mostly material support even if we didn't get the money yet we are working on a daily duty base”. (P#3, age, 30, male, single, profession: physician)

During times of stress, few participants described that they cared and helped each other and showed support which played a great role in stress relief.

“It is very good, all attachments are actually good, some of them have been here longer. The relationship between staffs is like family such as caring for each other and one helping another especially during stress time which helped me a lot” (P#2 male, Age 28, married, profession: nurse)

“It is good, it is nice, we help each other like brothers, you get emotional support we come together and eat and you find here the things you have missed doing with your family” (P#3, age, 30, male, single, profession: physician)

ISSUES RELATED TO THE SERVICE

Almost all participants mentioned the service that they are providing is somewhat good for a developing country.

“As a developing country, it is good. Even if we don’t expect much like the foreign countries, if it could be a bit improved, we don’t expect one toilet per person but I would say the number can be increased” (P#4 male Age 33, single, profession: nurse)

Some participants mentioned that there is a shortage of some emergency medications which are very vital for patients and mostly take time to get

“There aren’t many things available, since it is a quarantine you can’t find what you want, even the patients can’t find emergency medication as they wish, there isn’t enough supply for us even though there is some supply of PPE and similar things.” (P#9, male Age 30, single, profession: physician).

Some participants reported that there is a shortage of materials like ICU equipment and PPE that compromised the service and needs special attention in the future.

“There is a shortage of ICU machines PPE and others at the center, for example, we used to send patients to Paulo hospital for dialysis, and it would be better if everything could be done here which would make the service better.” (P#8, age 30, single, female, profession: nurse)

Almost all mentioned there is an issue of being not updated with new information or guidelines related to the disease condition and reported there is a lack of updated training also mentioned the necessity of preparing the provider psychologically ready before joining the service.

“In the future, we have to get everyone ready psychologically and it was an upper official who gave us instructions, we didn’t get any training by professionals, so if the training can be given by professionals the work would be done in an easier way without stress.” (P#4 male Age 33, single, profession: nurse)

All participants reported that there is no organized kind of psychological support team for the staff or at all, which they considered as a very important part of the service and would make the system to function well and should be strengthened professionally and given persistently.

“The other is we have no emotional support, it would be very beneficial if we had, so it would be good if there were.”(P#5, age, 32, male, single, profession: nurse)

“Those giving psychological support are few in number and I think if it could be available in an organized way because it plays a significant role in this difficult time” (P#6, age 28, married, female, profession: physician)

Some participants reported that psychological support should also be available for the patients because it plays a very important role to the service because not only medical issue needs attention psychological well should also be addressed in their stay at the center.

“The other thing; there is no emotional support, for us and patients it would be very beneficial if we had were a team that provide the service in an organized way so it addresses issues other than the medical illness”(P#5, age, 32, male, single, profession: nurse)

Discussion

This study explored the lived emotional experiences of frontline health care workers who are providing care for patients with COVID-19 at Eka-kotebe hospital using phenomenological methods and summarised the findings into four themes: significant amounts of negative emotions at an early stage, living under pressure, changes, coping style and support, and issues related to the service.

The frontline health care workers caring for COVID-19 patients felt a lot of negative emotions initially like anxiety, sadness, being scared, depression, being panicked, and discomfort which is caused by the outbreak, intense working environment with new challenges, and being away from loved one, which becomes disappeared or decreased after weeks stay at the service which was consistent with the studies done on nurses during the outbreak of MERS-Cov in South Korea and during the recent SARS coV.2 outbreak in china. (23, 27). In contrast to this study, those studies were done only on parts of the frontline health workers who are nurses. In this study, frontline health workers' concerns about family members were consistent with the study done in Taiwan on nurses caring for patients with SARS-1(18), especially those who have children in the family. Similar to this study, distressing news from a media outlet about the illness, nature of the illness, separation from their families, feeling of loneliness, and interpersonal unfamiliarity or the new working environment under the threat of epidemic disease led to a lot of negative emotions such as fear, anxiety, sadness, and helplessness, which have been reported by several studies (19, 23, and 27,). This study showed that HCW's negative emotions are more pronounced during the initial period after entering anti-pandemic service and facing COVID-19 patients for the first time continued for some time. Therefore, early psychological intervention is particularly important to HCW's in an epidemic. It is good to conduct a stress assessment of HCWs immediately after receiving the epidemic prevention tasks and to provide professional, flexible, and persistent psychological intervention to promote emotional stability and improve HCW's mental health. At the same time, it is important to establish early support systems, such as adequate supplies of protective materials, reasonable allocation of human resources, training on updates of the illness, and interpersonal interaction among HCW's to facilitate HCW's adaptation to the anti-epidemic tasks (21).

It is well-known that cognitive evaluation, coping style, and social support are all plays an important role in the alleviation of stress. Studies have shown that psychological adaptation and social support play an intermediary role in psychological rehabilitation under outbreak stress. The pressure of the epidemic may prompt HCW's to use their medical and psychological knowledge to actively or passively make psychological adjustments. It has been demonstrated that all coping measures under the epidemic disaster can alleviate stress and promote mental health (14). Our study, also indicated that HCW's adopted rationalization, speculation, intellectualization, and other psychological defenses to psychologically adjust to the situation.

According to psychologist Richard Lazarus' stress and coping model, whether or not the stressors are effective depends principally on the process of cognitive evaluation and coping. When stressed, HCW's constantly modify cognitive evaluation through professional skills to promote self-psychological balance, take the initiative to be altruistic, look for team support take the initiative to scale back stress, adjust sleep, diet, and exercise to adjust to internal and external environment changes, and prevent injuries caused by stress, which has positive significance for mental health (19). Many studies have shown that epidemic outbreaks can cause psychological disturbance and a lot of negative emotions for caregivers (7, 22, 27, and 28).

In contrast, the results of this study demonstrate that most HCW's grew psychologically and emotionally under pressure to become calm confident, and relaxed over time. The sense of responsibility brought by professional ethics in an epidemic encouraged HCW's to actively participate in anti-epidemic tasks boosted their professional identity and pride, in line with previous reports or studies (21, 25). Therefore, actively supporting, guiding, and inspiring HCW's to understand their own psychological growth during an epidemic may play a positive role in psychological adjustment.

Emotions are integral parts of the human experience and could be classified as positive and negative. Positive emotions defined as "pleasant or desirable situational responses...like joy relaxation, happiness, interest and etc. Whereas negative emotions can be defined as "as an unpleasant or unhappy emotion which is induced in individuals to express a negative effect towards an event or person" like fear, sadness, hopelessness, depression, and etc. (29).

The main finding of this study i.e. of the existence of positive emotions such as confidence, calmness, and relaxation or emotional stability, which gradually appeared after negative emotions, is in contrast to the results of several studies that describe only the presence and persistence of a larger amount of negative emotions during the outbreak of an epidemic (7, 27).

However, other studies report similar findings like this study and reported that negative emotions like fear, depression, being scared, sadness and hopelessness dominate initially followed by positive emotions like feeling relaxed, being confident, and calmness as time progresses (26, 28). In addition to providing care to patients, wearing PPE for long hours also led to physical distress, especially for those who had to stay in the isolation wards for entire shifts which also supported by other studies (26). During an outbreak, early training, updates about the illness, and confidence in professional skills are all factors that promote the medical staff's willingness to actively participate in anti-epidemic work (12, 13). Physical and mental rewards to HCWs from the institution are also important supporting factors as it was reported by other study (21).

Participants of this study generally believed that emotional stability like calmness, relaxation, and confidence that appeared later was mainly linked to the multi-dimensional support of family members, loved ones, team members, government or institution, etc. Therefore, social support is critical for HCW's in the fight against epidemics and this result is supported by several studies done on similar contexts (16, 25, and 27).

The calmness, emotional stability, and relaxation of most HCW's in this study after starting the anti-epidemic tasks is rarely mentioned in other studies and may be related to HCWs gradual adaptation, acceptance, and positive response (14).

Therefore, in the process of the psychological intervention of HCW's in an epidemic, strengthening multi-dimensional social support, adjusting cognitively, guiding positive coping styles, and stimulating positive emotions is crucial to promote the psychological health of frontline health care providers who are actively participating in the anti-epidemic tasks in the future and additionally establishing a well-organized psychological support team must be taken into consideration in order facilitate the support needed by both health care workers and patients.

Strengths

Most of the studies done previously are retrospective studies. In contrast, this study was done during the active phase of the pandemic and involved the participants who are actively participating and just accepted the anti-pandemic tasks. I collected the data concerning the lived emotional experience of the participants over time through phone interviews. This led to a detailed understanding of their work experience, resulting in comprehensive and authentic data.

Limitation

The sample size of this study was limited due to the characteristics of qualitative research, Firstly, all of the participants were nurses and physicians. The experiences of other health care workers and administrators besides nurses and physicians need to be further explored. Secondly, due to the nature of outbreak prevention and control, we were unable to conduct face to face interviews and it was more difficult to build rapport with participants over the phone, and non-verbal cues could not be obtained. In addition, this study was a short-term study. Long-term experience of the research subjects would be a valuable path to explore in the future.

Conclusions

This study provided a broad and in-depth understanding of the lived emotional experience of frontline health workers of patients with COVID-19 through a qualitative approach. The study found that during the epidemic, negative emotions of different origin dominates initially on frontline health workers against the pandemic and later improved and replaced by calmness, confidence, and relaxed emotion. In the early days, negative emotions were experienced significantly and followed by calmness and feeling of relaxation later. Self-coping style, psychological growth, and supports of different origins are important for health care workers to maintain mental health and stay at the service. The need for a more organized psychological support team for the staff is crucial for the system to run fully.

RECOMMENDATION

The intensive work challenged health-care workers physically and emotionally; in addition to the already existing material support comprehensive all-rounded support should be provided to safeguard the wellbeing of health-care providers and readiness and efficacy promoted to manage crises and in addition a more organized and settled psychological support team should be formed by the institution in the future which would contribute a significant positive effect on the service as a whole.

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ANNEX

Annex 1

Consent

Hello, my name is Nega Bekele I am a final year psychiatry resident at the Addis Ababa University (AAU). As part of my training, I am studying the lived emotional experiences of frontline health care provider of covid-19 patients at eka-kotebe general hospital.

You were selected to participate in this study because you are working at frontline care provider at the eke kotebe hospital I anticipate that this interview will take at least 60 minute minutes to complete

Aim: The data collected will provide useful information about the lived emotional experiences of frontline health care provider of covid-19 patients

Benefit: The study may not have any direct or immediate benefit to you, but your participation is very important for the outcome of the study and gives direction for future study and improvement in the service

Risk: you do not have to take part in this research if you do not wish to do so, and your decision to participate or not will not have any consequence all information will remain confidential, I will not record your name. I will only record you as a survey subject p1, p2 or n1, n1 where p-physician, and n-nurse,

Are u willing to participate in the study?

If yes I appreciate your willingness to help with my project. If you have questions later, please contact me at 0902936764 any time

Amharic-version of consent

ጤና ይስጥልኝ ስሜ ነጋ በቀለ ነው የአዲስ አበባ ዩኒቨርሲቲ የመጨረሻ አመት የሥነ-አእምሮ ተማሪ ነኝ ፡
፡ እንደ የሰልጠናው አካል ፣ በኤካ ኮቴቤ አጠቃላይ ሆስፒታል ለ ኮቪድ 19 ሕመምተኞች እንክብካቤ
የሚሰጡ የ የፊት መስመር የጤና እንክብካቤ ሰራተኞችን ስሜታዊ ልምዶች/ ገጠመኞች እያጠናሁ ነው ፡
፡ በዚህ ጥናት ውስጥ እንዲሳተፉ ተመርጠዋል ምክንያቱም በዋናነት ኮተቤ ሆስፒታል ውስጥ የፊት
መስመር እንክብካቤ በመስራት ላይ ስለሆኑ ነው ይህ ቃለ መጠይቅ ለማጠናቀቅ ቢያንስ 60 ደቂቃዎችን
ይወስዳል የሚል ግምት አለኝ ፡፡

ዓላማው: የተሰበሰበው መረጃ በ ኮቪድ 19 ሕመምተኞች ላይ የሚሰሩ የፊት መስመር የጤና አጠባበቅ
ሠራተኞች ህይወት ስሜታዊ ልምዶችን/ገጠመኞችን በተመለከተ ጠቃሚ መረጃዎችን ይሰጣል

ጥቅም- ጥናቱ ለእርስዎ ቀጥተኛ ወይም አስቸኳይ ጥቅም ላይኖረው ይችላል ፣ ግን የእርስዎ ተሳትፎ ለጥናቱ
ውጤት በጣም አስፈላጊ ነው እናም ለወደፊቱ ጥናት እና በአገልግሎት መሻሻል አቅጣጫ ይሰጣል

ስጋት:- ይህን ለማድረግ ካልፈለጉ በዚህ ጥናት ውስጥ መሳተፍ የለብዎትም ፣ ለመሳተፍ ወይም ላለመሳተፍ
ያደረጉት ውሳኔ ምንም ዓይነት ውጤት አያስከትልም ሁሉም መረጃዎች በሚሰጥር የሚጠበቁ ይሆናሉ ፣
ስምህን አልመዘገብም ፡፡ እኔ የምመዘገብዎ እንደ የዳሰሳ ጥናት ርዕስ ጉዳይ p1 ፣ p2 ወይም n1 ፣ n1
የት p- ሀኪም-እና n-ነርስ

በጥናቱ ለመሳተፍ ፈቃደኛ ነዎት?

አዎ ከሆነ ለመሳተፍ ፈቃደኛነትዎን አደንቃለሁ ፡፡ በጥናቱ ላይ ጥያቄዎች ካሉዎት በ 0902936764
በኋላ መደወል ይችላሉ

Annex 2

Part 1

Participant information

Identification

Age

Gender

male

Female

Marital status

single

married

divorced

widowed

Occupation

physician

nurse

Religion

Christian

Muslim

other

Part 2

Main Questions

1. How did you feel when accepting this task?
 - 1.1 How did you feel on the first day?
 - 1.2 How are you feeling now?
 - 1.3 How do you feel when you are working with COVID-19 patient?

2. What are the main emotional experiences did you have while caring for COVID-19 patients?
 - 2.1 How those emotions affected your work?

3. What has changed in your life because of the task you are assigned?

4. What do you feel about those changes?

5. What are your coping strategies?

6. How did you cope with the current changes in your work and life?

7. How was your connection with significant other?
 - 7.1. What was their view about you being in this care?
 - 7.2. What support did you received?
 - 7.3. How do you see you communication?

8. How was your relationship with other staff?

9. How do you describe the system/care?

10. What would you like to suggest about care in the future? (Incentives?)

Amharic version

ክፍል 1

የተሳታፊ መታወቂያ

ዕድሜ -

ጾታ

ወንድ

ሴት

የጋብቻ ሁኔታ

ያገባ

ያላገባ

ሥራ -

ሐኪም

ነርስ

ሃይማኖት -

ክርስቲያን

ሙስሊም

ሌላ

ክፍል 2

1. ይህንን ሥራ ሲቀበሉ ምን ተስማምተዋል?

1.1 በመጀመሪያው ቀን ምን ተስማምተዋል?

1.2 አሁን ምን ይስማምታል?

1.3 ከ COVID-19 ህመምተኛ ጋር አብረው ሲሰሩ ምን ይስማምታል?

2. ለ ኮቪድ 19 ህመምተኞች እንክብካቤ በሚያደርጉበት ወቅት የተስማምተው ዋና ዋና ስሜት ምን ይመስላል? ምን ነበሩ?

2.1. እነዚያ ስሜቶች በስራዎ ላይ ምን ተጽዕኖ አሳድረዋል?

3. በተመደቡበት ሥራ ምክንያት በሕይወትዎ ውስጥ ምን ተቀየረ?

4. ስለ እነዚያ ለውጦች ምን ይስማምታል?

5. በህይወትዎ ውስጥ ችግር በሚከሰትበት ጊዜ እንዴት መቋቋም ይችሉ ነበር?

6. በስራዎ እና በህይወትዎ ውስጥ ያሉትን ወቅታዊ ለውጦች እንዴት ተቋቋሙ?

7.7. ከእርስዎ የቅርብ ሰዎች ጋር ያለዎት ግንኙነት እንዴት ነበር? ቤተሰብ ፣ ጓደኛ

7.1. እርስዎ በአገልግሎቱ ውስጥ ተሳታፊ ስለሆኑ የእነሱ አመለካከት ምን ነበር?

7.2 ምን ዓይነት ድጋፍ አግኝተዋል?

7.3. ግንኙነቶዎን እንዴት ይመለከታሉ?

8. ከሌሎች ሰራተኞች ጋር ያለዎት ግንኙነት እንዴት ነበር?

9. የአገልግሎት ስርዓቱን እንዴት ይገልጹታል?

10. ለወደፊቱ ስለአገልግሎቱ ምን አስተያየት ይሰጣሉ?