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THE WORK OF THE SUPERVISOR NURSE IN THE COVID 19 PANDEMIC - 2020/2021 "FRONTLINE PROFESSIONALS"

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"Become"
A being – Nurse,
It's giving of yourself
And with this grow;
It's about making a commitment
And with it mature.
(written by Wanda de Aguiar Horta)

I chose the shifts, because I know that the dark of night scares the sick.
I chose to be present in the pain because I have been very close to suffering.
I chose to serve others because I know that we all need help one day.
I chose white because I want to convey peace.
I chose to study work methods because books are a source of knowledge.
I chose to be a Nurse because I love and respect life!
(written by Florence Nightingale)

I chose to be a Nurse to help those in need
do my best, don't measure efforts
use the study tool to guide the path of concepts to improve assistance and alleviate the suffering of those who seek help.
Bringing light to those who long for life.
Fabiana Tavares de Almeida

INTRODUCTION

"FRONTLINE PROFESSIONALS"

Amid the worst health crisis of the 21st century, the work of nursing professionals has been fundamental in combating Covid-19, the disease caused by the new coronavirus. 1

Currently, the challenge facing healthcare professionals around the world is related to variants of the new coronavirus (COVID-19) pandemic.1

The term "Front Line" is widely used by the largest armed forces services in the world. It is a combat space control measure that designates the most forward friendly or enemy forces present in the combat zone during an armed conflict or war; be it regular or reconnaissance infantry, identifying the most advanced location of covering and screening forces. 28

Typically, the front line is placed before, beyond, or at the most advanced edge of the battlefield.

This term "Front Line" was widely used in the First World War, where it showed the most clearly defined front lines known to date: the front lines in France were almost all marked by trenches. In modern global conflicts, war is being fought with unconventional methods due to the rise in terrorism today.

Fig.1 - Australian soldiers on the front lines during the First World War

The front-line work of companies, and especially hospitals, can be seen as a three-front fight. The customer demands attention and quality of service on the one hand, the organization demands efficiency and productivity on the other, and frontline staff are metaphorically caught in the center.22

This approach emerged as a relevant topic for Marinova, Ye and Singh in 2008, who together developed a scale that evaluates these elements through five dimensions: two orientations (productivity and quality) and three mechanisms (autonomy, cohesion and feedback).22

In this COVID 19 pandemic, this Front-Line mechanism has been widely used as a guide for business guidelines, since the pandemic resembles combat in a war not of men, but of virus x man trying to survive the virus.

COVID 19

It all started in Wuhan, Hubei province, China the first patient was hospitalized on December 12, 2019 at Wuhan Central Hospital. Epidemiological investigations then suggested that the outbreak was associated with a seafood market in Wuhan. As of January 25, 2020, at least 1,975 cases have been reported since the first notification in Wuhan.

Fig2: Huanan Seafood and Wildlife Market, Wuhan, China. Photos obtained by Edward C. Holmes in October 2014 – Photo: Reproduction/Cell

The disease appeared as a severe respiratory syndrome that included fever, dizziness and cough. 4Metagenomic RNA sequencing 4 from a sample of the patient's bronchoalveolar lavage fluid was identified with a new strain of RNA virus from the Coronaviridae family, which is designated Coronavirus 'WH-Human 1' (and has been referred to as '2019-nCoV').6

Phylogenetic analysis of the complete viral genome (29,903 nucleotides) revealed that the virus was most closely related (89.1% nucleotide similarity) to a group of SARS-like Coronaviruses (genus Betacoronavirus, subgenus Sarbecovirus) that had previously been found in bats in China.5

This outbreak highlights the continued ability of viral spread from animals to cause serious illness in humans, called SevereAcuteRespiratorySyndrome (SARS-CoV-2), responsible for the disease Coronavirus Diasease (COVID-19), Viruses in the family Coronaviridae.5,6 Viral particles they are spherical, approximately 125 nm in diameter and covered by a phospholipid envelope. The single-stranded, positive-sense RNA genome contains between 26 and 32 kilobases and is associated with proteins, forming the nucleocapsid. The particles have projections that emanate from the envelope in the form of spikes, formed by trimers of the S protein (spikeprotein). (6,7) These projections generate a crown appearance, hence the name coronavirus. The S protein is responsible for the adhesion of the virus to the host's cells and participates in the internalization process, in which fusion occurs between the viral and cell membranes and the virus enters the cytoplasm. (6,7).

In the case of Sars-CoV-2, which causes the current Covid-19 pandemic, the S protein recognizes the cell's ACE2 (angiotensin-converting enzyme 2) receptor through its receptor-binding domain (RBD). 7,8 Seven species can infect humans, three of which can produce serious diseases, Sars-CoV-2, Sars-CoV, agent of the Sars pandemic (severe acute respiratory syndrome) of 2002-2003 and Mers-CoV, causes Mers (Middle East respiratory syndrome). Coronaviruses HKU1, NL63, OC43 and 229E are associated with diseases with mild symptoms. (6,7,8)

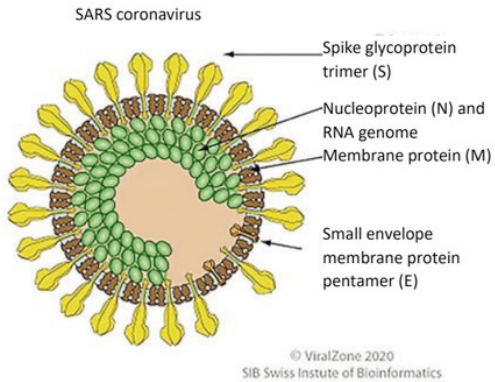


Fig. 3: Structure of a coronavirus viral particle – Image: ViralZone (https://viralzone.expasy.org/30) 28.07.2021.

In January 2020, the WHO released the official name of the disease caused by this virus, which is COVID-1931 and determined a pandemic situation. COVID – 19 has evolved rapidly to exhaust the response capacity of health systems around the world. (4,5,6,7)

COVID-19 has become a serious global public health problem. The disease causes respiratory infections in humans, with symptoms that vary in intensity and generally intensify when associated with other comorbidities. effective vaccines at the beginning of the pandemic.2,3,4.

COVID 19 has spread across continents. As of February 21, 2020, there were 76,288 confirmed cases of SARS-CoV-2 in mainland China, including 11,477 severe cases, 2,345 deaths, and 20,659 discharges, as well as 68 cases in Hong Kong, 10 in Macau, and 26 in Taiwan. More than 1300 cases have also been confirmed in at least 27 other countries on four continents.3,4,8.

World Health Organization (WHO) officials have outlined their top research priorities for controlling the outbreak of the coronavirus-associated disease known as COVID-19 and highlighted the importance of developing easy-to-apply therapeutic and diagnostic candidates to identify active, asymptomatic and resolved infections: 9,10,12 Of note, the Coronaviridae family not only includes SARS-CoV-2, but also SARS-CoV, Middle East respiratory syndrome coronavirus (MERS-CoV), and common cold viruses (e.g., 229E, OC43, NL63 and HKU1). 3

In Brazil, until May 17, 2020, with 15,662 deaths, the disease advanced, presenting a pattern of high transmissibility in some geographic areas, with an increase in suspected cases and with low conditions for diagnoses and adequate notification of confirmed cases, which results in an undersized epidemic curve, weakening pandemic containment strategies and overloading the health system as a whole. 1

And it is in this context that the illustrious "frontline professionals" emerge, a term used to refer to health employees who worked with the disease during this period. 1,2,3.

WERE WE PREPARED FOR COVID−19?

The first case of COVID-19 in Brazil was reported on February 26, 2020 by the Ministry of Health. The client was a 61-year-old man who was admitted to Hospital Israelita Albert Einstein, on February 25, 2020, with a travel history to Italy, Lombardy region. The Ministry of Health, together with the state and municipal departments of São Paulo, had been investigating the case since then. SES/SP and SMS/SP identified contacts at home, hospital and flight, with support from Anvisa with the airline. (6,7).

With the notification of the first cases, there was little scientific knowledge about the action of the virus and the health system, in general, was unprepared to deal with it, thus generating regulatory measures for services, which were defined according to local priorities, preserving maximum the physical and emotional integrity of professionals, in addition to minimizing feelings of insecurity in everyone.1,3

The exorbitant mortality rates and the occupancy of global beds, the lack of a vaccine and the lack of knowledge of effective therapy, have led countries to adopt non-pharmacological measures in order to contain the spread of the disease.13,14,15 Among which, the following can be mentioned: "look down": "Lockdown" is an expression in English that, in literal translation, means confinement or total closure. It has been used frequently since the worsening of the Covid-19 pandemic, a disease caused by the new coronavirus (Sars-CoV-2).11,12,13

Although it does not have a single

definition, "lockdown" is, in practice, the most radical measure imposed by local authorities to ensure social distancing - a type of total lockdown in which people must, in general, stay at home under social distancing measures. social security, cancellation of mass events, temporary closure of educational centers and workplaces, restriction of intercity and interstate transport, blocking of borders, quarantine for risk groups and partial or total economic shutdown. Each country or region defines how this closure will be carried out and which services are considered essential and which continue to operate.10,11,12,13

TYPE OF INSULATION	DIFFERENCE
Social isolation	is a behavior in which an individual stops participating - voluntarily or not - in group social activities such as work and entertainment. * in principle, a preventive suggestion for everyone so that people stay at home.
Lockdown	in Portuguese, total lockdown or confinement, is an isolation protocol that generally prevents the movement of people or cargo. *is a total lockdown measure that, in general, also includes the closure of roads and prohibits non-essential movement and travel.
Quarantine	is the confinement of healthy individuals or animals for the maximum incubation period of a disease, counting from the date of last contact with a clinical case or carrier, or from the date on which this healthy individual left the place where the source of disease was located. infection. *is an official isolation order decreed by a government.

Table 1: Difference between: LOCKDOWN, Social Isolation and Quarantine:

On March 11, 2021, the State of São Paulo faces a crisis with an occupancy of 87.6% of ICU beds and São Paulo of 86.7%. The State of São Paulo recorded 517 reported deaths from COVID-19 in 24 hours, in addition to 16,058 new confirmed cases of the disease. Brazil had the deadliest of all records in the COVID-19 pandemic: 2,349 deaths.16,17

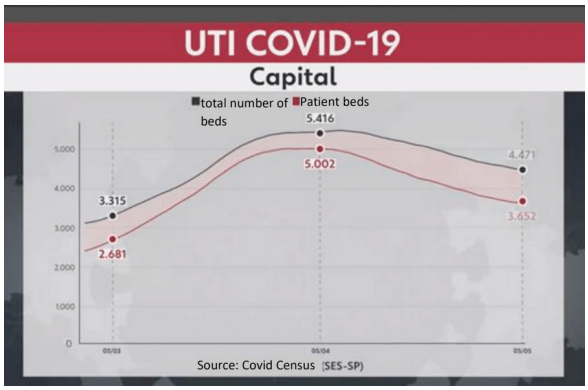


Fig. 6 Patients admitted to the ICU in the city of São Paulo. — Photo: Reproduction/TVGlobo (https://g1.globo.com/sp/saopaulo/noticia/2021/05/05/taxa-de-ocupacao-de-leitos-de-uti-para-covid--aumenta-por-three-days-in-a-row-in-the-city--of-SP-and-leave-em-alert-especialistas-de-saude.ghtml on 28.07.2021)17.18

NURSING PROFESSIONALS

The Nursing professional carries out his activities with competence to promote the human being as a whole, in accordance with the principles of ethics and bioethics, supported by:

> "Law Number: 5,905, of July 12, 1973, of the Federal Nursing Council of COFEN, Article 1 – Practicing nursing with freedom, autonomy according to legal, ethical and human rights assumptions and principles."21

Nurses, guided by the aforementioned principles and focusing on care, have been helping patients infected with the coronavirus, in addition to providing information inherent to the topic. The care and competence of the professional nurse in different areas becomes a very important work valuation tool so that the professional can intervene therapeutically.21

The knowledge relevant to the profession, such as technical-scientific training and post-graduation, allows excellence in the execution of its actions, promoting safety for the people assisted, respecting and supporting the initiatives of the World Health Organization (WHO) and the Ministry of Health (MS), in

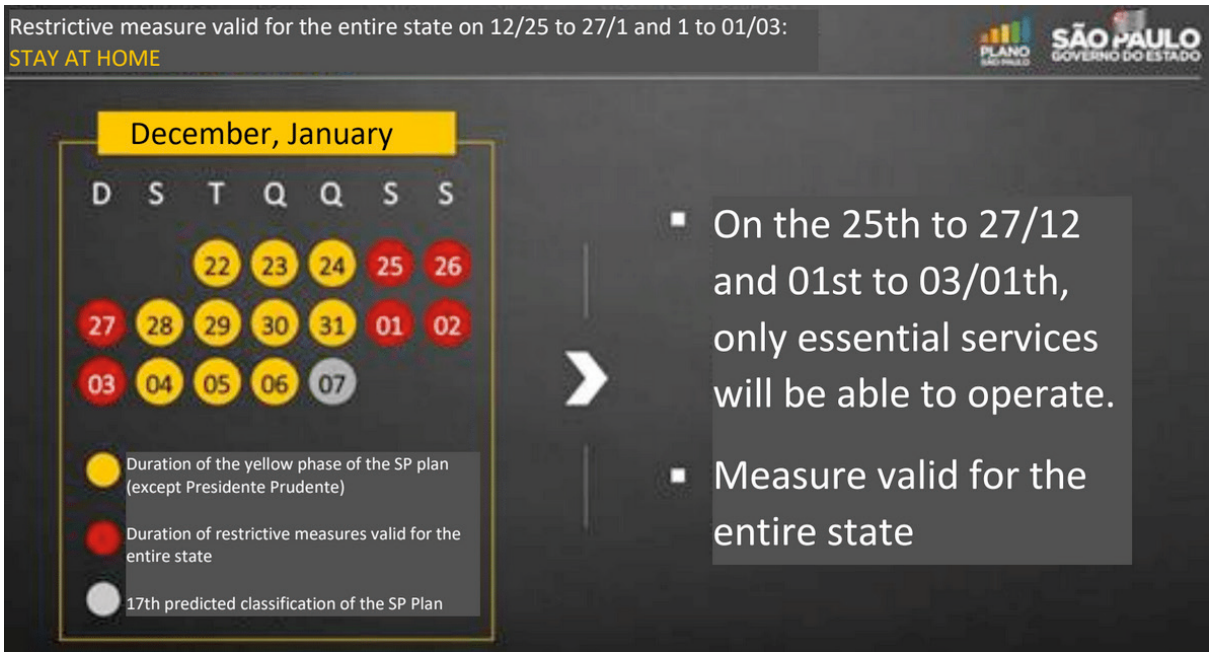


Figure 3. below shows the lockdown calendar from the end of December 2020 and the beginning of January 2021, more restricted between Christmas and New Year (Credit: Government of the State of SP).15,16 - Contingency Plan - State of São Paulo even more restrictive step to avoid a collapse in the health system.15,16

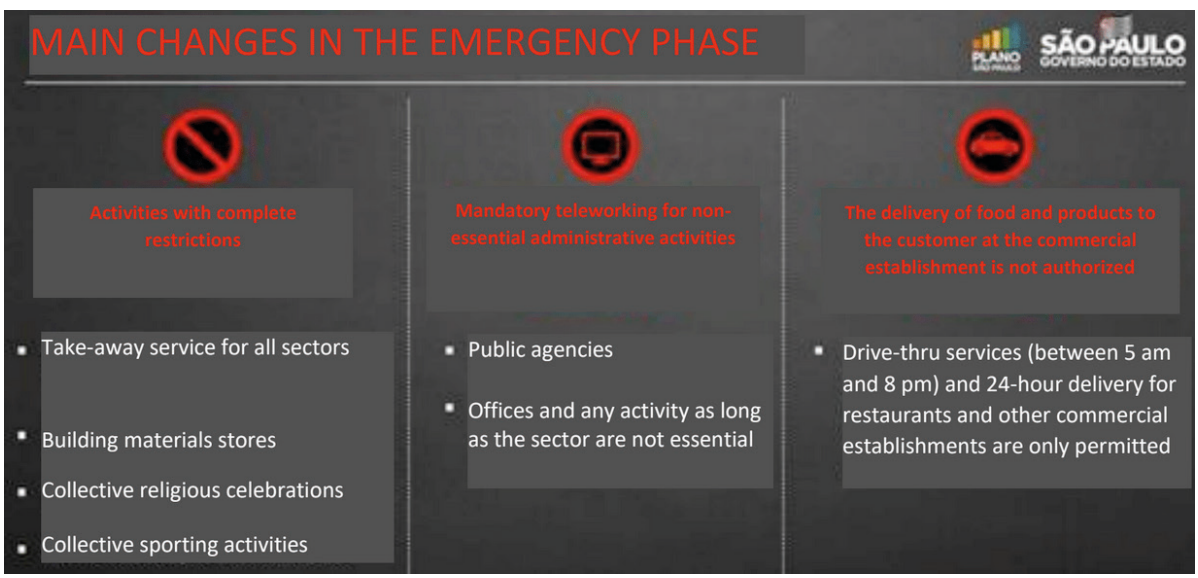


Figure 4: Model of the main changes in the Emergency Phase

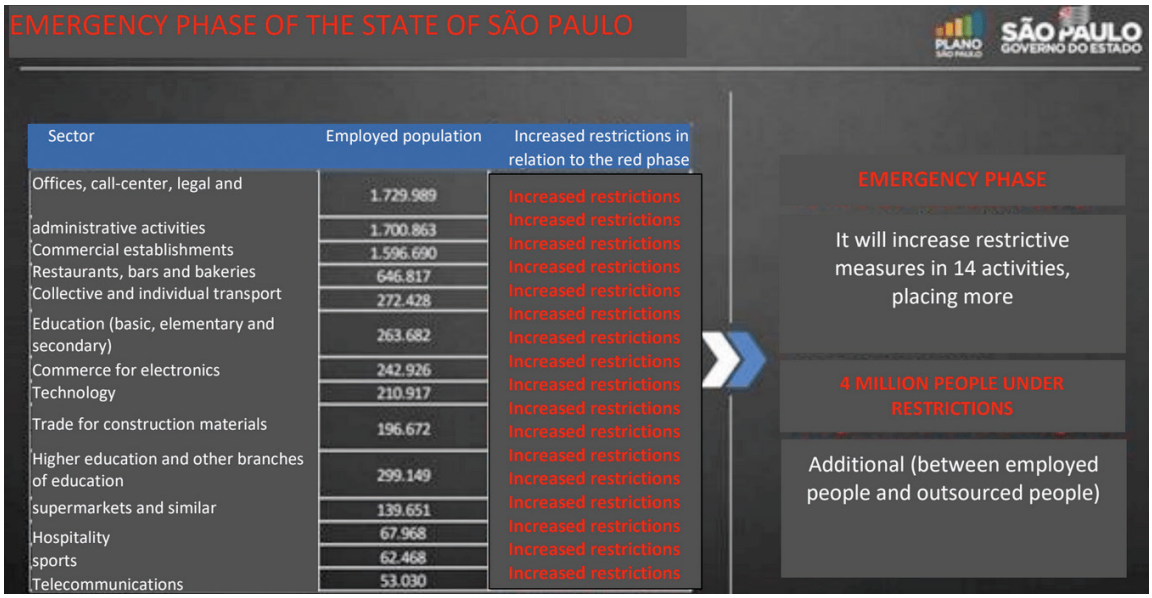
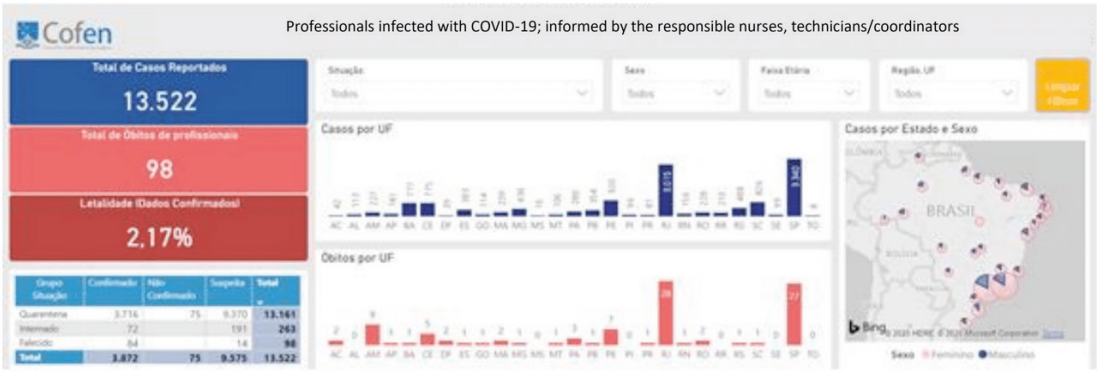


Fig.5: Description of the Emergency Phase of the State of São Paulo – what may or may not work.



Graphic 1; Source: COFEN at http://www.cofen.br – 28.07.2021

addition to scientific opinions and research, respecting the Code of Ethics for Nursing Professionals.

In line with the Pan American Health Organization (PAHO), the Covid-19 pandemic, as of September 23, 2020, recorded 31,425,029 confirmed cases in the world, 1,156,895 in Africa, 15,751,167 in America, 5,320,422 in Europe, 2,266,031 in the Eastern Mediterranean, 588,138 in the Western Pacific and 6,341,635 in the Southeast Asia Region, accounting for 967,164 deaths globally. In Brazil, on the same date, there were 4,558,068 confirmed cases and 137,272 deaths. (18,17,19)

According to data from the Regional Nursing Councils in Brazil, there are 419,959 nursing assistants, 1,320,239 nursing technicians and 565,458 nurses able to work in Brazil during the COVID Pandemic (19.21)

THE NURSE'S WORK DURING COVID - 19

In this historical, intense and a lot of learning moment, every day we study flows, processes and guidelines in open flow hospitals (door - open) and in Field Hospitals, we review stocks of material, equipment, medicines, PPE (personal protective equipment) to meet the demand of increasing and decreasing hours according to the peaks of the Pandemic. (20,21)

Just like a human being, it is a fact that healthcare professionals felt fear and insecurity when dealing with such a challenge. However, fear alone would not be enough to resolve the demand for so many cases and patient deaths.21

The graph below shows the table of Professionals infected with COVID-19 reported by COFEN – a study carried out by Technical Responsible Nurses/Coordinators. (21)

COVID-19 has brought a lot of learning to nursing in general, however, it has further aggravated the crisis in the Unified Health System (SUS), which faces numerous structural and organizational challenges, including: the unavailability of resources for care and the number and qualifications of professionals. (21)

The main concern is the lack of equipment, hospital and intensive care beds, scarcity of diagnostic kits, personal protective equipment (PPE), underfunding and low coordination between care network services. Furthermore, the work overload of professionals was related to the lack of scientifically prepared and accredited personnel for the work and the increase in the number of nursing professionals infected by SARS-CoV-2.21

Fig. 7: A healthcare professional takes care of a patient in the ICU of Emílio Ribas, a reference center for Covid-19 treatment in São Paulo. — Photo: Miguel Schincariol/AFPF Source: https://g1.globo.com/sp/saopaulo/noticia/2020/05/25/taxa-de-ocupacao-dos-leitos-de-uti-para-a-covid-19-e-de-88percent-na-grande-sao-paulo.ghtml

THE STUDY HOSPITAL

In more than 77 years of activities, the study hospital was founded in 1933 and is a private, non-profit civil entity, philanthropic in nature, recognized as being of federal, municipal and state public utility, respectively by decrees: 57,925 of 03/04/1966, 40103 of 05/17/1962 and 8911 of 07/30/1970.20, accredited to the SUS network, private and university – in São Paulo, Brazil.20

It serves all medical specialties, especially those with highly complex procedures. Its representation for state and municipal managers makes it responsible, in São Paulo, for covering an area that covers more than 5 million inhabitants, in addition to serving patients from other states. (20)

The hospital's mission is to provide quality healthcare to the population, aiming for their well-being, as well as offering ideal conditions for teaching and research. (20)

Average service between outpatient and inpatient care: monthly, 90 thousand consultations are carried out, 2,600 hospitalizations, 1,600 surgeries and more than 200 thousand laboratory tests. At the hospital, 840 residents, 12 thousand undergraduate and postgraduate students and more than 5 thousand employees provide care.

Before the COVID 19 pandemic, we had 21 sectors available for internal hospital care including Emergency, Inpatient Units, Intensive Care Unit (ICU), Surgical Center, Sterile Equipment Center.

During the pandemic, the study hospital had to restructure itself, starting to care for suspected and confirmed COVID cases, in addition to continuing to care for other cases, such as traumas and other diseases. (20)

During the pandemic, the public health system did not have much experience of the situation and there was nothing described. However, professionals adapted to the disease. (19,20)

In hard, tireless work and in conjunction with multi-professionals, the entire nursing team had to restructure and be relocated according to the care needs and standards established by the Hospital Infection Control Commission – CCIH. Namely, the prerogatives given were based on the hospital physical plant, available materials and number of personnel involved in the work. (19,20)

Everyone involved on the front line, such as the administration sector, emergency sectors, health hygiene professionals, ICU, Surgical Center, Material Center, purchasing, equipment, financial department and those responsible for imaging and laboratory diagnostics had to adapt to new social distancing guidelines, infection control standards and remote work.

The literature served as a basis to guide the best path forward, but nothing was found about it, not even related to other global pandemics, we did not have a guide for conduct.

THE STUDY HOSPITAL DURING THE COVID 19 PANDEMIC

Administratively and without a background description, it was not known where to start when COVID-19 cases began to arrive en masse. Quickly, the reception of suspected and confirmed cases of COVID-19 was reorganized and separated by clinical history, signs and symptoms, in addition to specific clinical, imaging and laboratory tests for COVID-19.

The service flow was as shown in table 1 below:

Local	Type of Service
Risk Classification for COVID-19 - 1st Floor Hospital	open door Direct service to the public Triage of cases
Emergency Care Room 1st Floor Hospital	open door Orange for intermediate cases Red for serious pre-ICU cases

Table 1: Organization of Service Flow for COVID-19 PG GENERAL

Flow of care in ICU COVID areas and total beds available for clients positive for COVID-19 as shown in table 2.

COVID ICU	Beds
ICU COVID 19 positive cases- 6th floor	Understanding 3 UTI's General1= 18 beds General 2= 9 beds General 3= 9 beds (total beds= 36) start
General 5	14 beds
General 6	8 beds
ICU COVID 19 cases treated General 4	18 beds (clients with more than 20 days of hospitalization)
ICU COVID DIPA (7th)	4 Beds
PNEUMO COVID ICU(11th)	10 Beds
ADULT PS ICU (1st)	08 Beds
Total ICU	Beds= 98

* There were 36 existing general-common beds – at the time of COVID-19 they were increased to COVID-19 ICU, confirmed cases and negative ICU for COVID-19.

There are 62 new beds. Adding to the previous ones, 85 beds allocated to COVID-19, giving a total of 98 beds for COVID-19.

Flow of care in Inpatient Units for COVID-19 in table 3:

Inpatient Unit Location	Bed availability
PS General Observation COVID-19 Orange and Red	- no limit on beds - "Open door"
UI PS General Adult	12 beds
DIPA 1 UI	16 beds
DIPA 2 UI	18 beds

Table 3: Organization of the Service Flow for COVID-19 in an Inpatient Unit

*** Totaling 46 beds in the hospitalization unit, taking into consideration that the General PS had no hospitalization limit.

THE WORK OF THE NURSING SUPERVISOR ON DUTY AT NIGHT COMPARATIVE SERVICE BEFORE AND DURING THE COVID-19 PANDEMIC

During the pandemic, the entire team at the study hospital also had to restructure, starting to care for suspected and confirmed COVID cases, in addition to continuing to care for other cases that are already routine at the hospital, such as traumas and other diseases. (20)

During the pandemic, the public health system did not have much experience of the situation and the team had never experienced anything like it, since our country does not experience attacks, wars, environmental catastrophes very often and there was nothing described as a guide or plan for recovery. contingency in pandemic situations. However, professionals adapted to the situation and the disease. (19,20)

In hard, tireless work and in conjunction with multi-professionals, the entire nursing team had to restructure and be relocated according to the care needs and standards established by the Hospital Infection Control Commission – CCIH. Namely, the prerogatives given were based on the hospital physical plant, available materials and number of personnel involved in the work.19,20

Table 4 illustrates the work of the Nursing Supervisor on night duty before and during the COVID-19 pandemic, in a Hospital accredited to the SUS network, private and University – in São Paulo, Brazil.

Surveys were carried out of employees at risk: age, previous illnesses, limitations, caregivers of the elderly – who could not work in the COVID-19 area – Provisional measures and PL:

Excess working hours were paid as overtime or compensated through a time bank within a period of up to 18 months. There was a change in unhealthy conditions and health professionals who were working in the COVID area began to receive an additional unhealthy hazard pay of up to 40% (forty percent) on their salary, precisely because they were exposed to the biological risk of contact with the new coronavirus; contamination by Covid-19 was then considered a work accident only with proof of causal link. (3,4)

The monthly cost of these ICU beds for covid-19 use in this period was R$ 2,592,000.00.20.

Graph 3 shows the collaboration of various sectors of the hospital through medical, nursing and administrative teams, which is essential for carrying out the work.20

The graph 4 shows the control of the occupancy rate and the average length of stay of customers, indicators and monitored.

DIFFICULTIES DURING A PANDEMIC

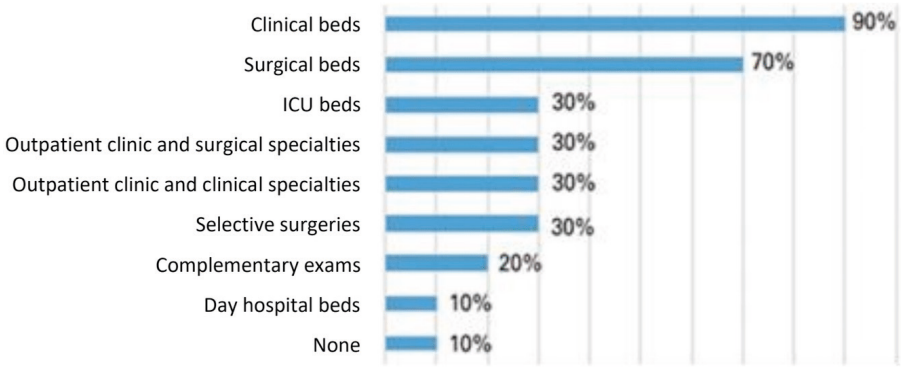
Due to many cases and the need for quick service, with a deficient number of workers, we suffer from data losses such as:

Incomplete records data elements, when available: sex, age, date of onset of symptoms, date of hospitalization and date of death records non-interacting cases. In most cases, neither the date of symptom onset nor the date of report was available.

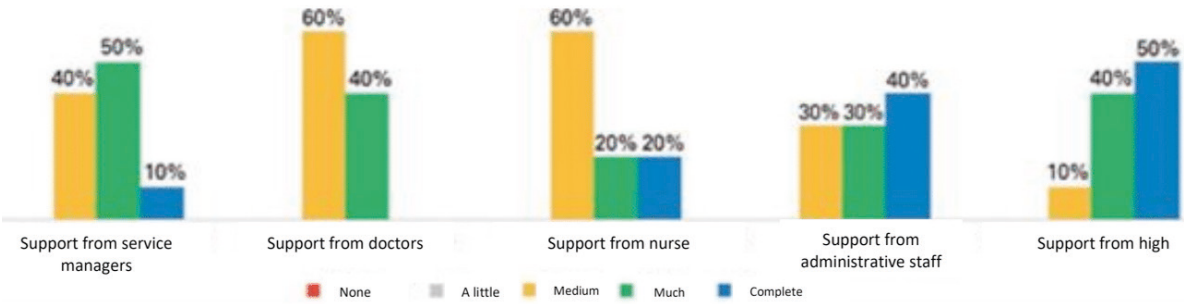
After vaccination we still do not have proof of vaccination, doses received, type of vaccine to compare effectiveness and adverse events;

Epidemiological data from areas in São Paulo, which still require more public health attention to avoid COVID-19.

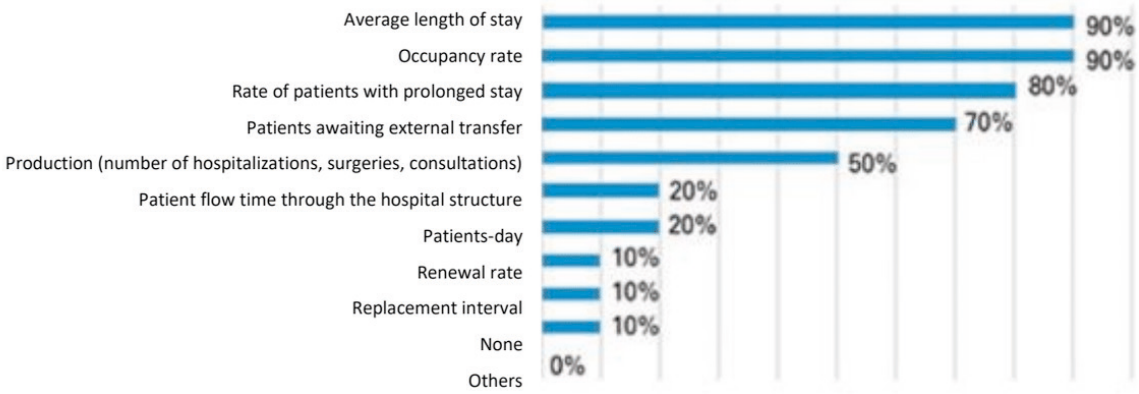
The study hospital currently has 110 adult ICU beds, of which 73 are exclusive beds for Covid-19. Since the beginning of the pandemic, the hospital has served thousands of citizens, having reached the mark of 1,100 discharges of recovered COVID-19 inpatients, who were able to return to their homes and



The graph 2 below describes the Frequency of access regulation by the Internal Regulation Center for Hospital capacity resources – 2020 to 2021



The graph 3: Frequency of access regulation by the Internal Regulation Center for resources of installed hospital capacity.



Graphic 4: control of occupancy rate and average length of stay, monitored indicators.

Supervisor assignment before the COVID-19 pandemic	Supervisor's Assignment During the COVID-19 Pandemic
Organized Flow: confirmation of Beds and Units in activity, vacancy, distribution regarding pathology.	Flow in the Pandemic: reorganization of flow: in the screening process in active search, care, intra- and extra-hospital transfer or post-death, being the professional category that remains at the patient's side 24 hours, aiming for well-being physical and mental health of the patient;
Issuance of CAT: – Reporting of Work Accidents involving sharps and/or others;	Issuance of CAT – Communication of Work Accident: with sharp holes and/or others;
Experienced team: already trained, just redirect doubts regarding the routines and difficulties of the shift	Team training: - newly hired - assist new team with hospital standards and routines;

Material resources PPE and Others: Delivered by the warehouse and central pharmacy team, just check missing items, and try to resize between sectors.	EPI'S and Other Material Resources: distribute and record EPI'S deliveries, as those previously responsible for this function were removed from the task due to fear of contamination;
Physical Resources: confirmation of operation of existing areas, status and blocking of areas according to hospital engineering assessment.	Physical Resources: check with the Nursing Directorate the condition of opening new facilities and adaptations to serve clients suspected or confirmed cases of COVID, as well as the relocation of clients affected by the disease.
Human Resources: cover absences of employees on duty;	Human Resources: cover absences of employees on duty; - check during the visit the service sectors from the ground floor to the 14th floor of the building whether the distribution is being effective and whether the materials are sufficient; - check during the visit the service sectors from the ground floor to the 14th floor of the building whether the distribution is being effective and whether the materials are sufficient;
Administrative - carry out a status report for the Nursing Board;	Administrative - carry out a status report for the Nursing Board;
Management Spreadsheet: computerized control and control spreadsheets for clients admitted and cared for in the hospital.	Management Spreadsheet: computerized control and control spreadsheets for clients admitted and cared for in the hospital. Specific spreadsheet: computerized control and control spreadsheets for clients admitted and treated in the hospital due to COVID-19 and controlling hospitalization until the client leaves the hospital.
- support the Nursing team in the event of complications, administrative problems, or assistance such as breakdowns between teams, companions and clients.	- support the Nursing team in the event of complications, administrative problems, or assistance such as breakdowns between teams, companions and clients.
Call: check the nursing team's attendance list and resize the Nursing professionals (Nurses, Nursing Technicians and Assistants) according to their skills and experience, records and - cover absences of employees on duty;	Call: check the nursing team's attendance list and resize the Nursing professionals (Nurses, Nursing Technicians and Assistants) according to their skills and experience, records and - cover absences of employees on duty;
Ombudsman: act as an ombudsman for patients and provide emotional support to the team and the patient/companion.	Ombudsman: act as an ombudsman for patients and provide emotional support to the team and the patient/companion.

Table 4: Nursing Supervisor responsibilities compared between before the pandemic and currently in the ongoing COVID-19 pandemic:

Provisional Measure, emergency project, favorable laws during the COVID 19 pandemic	They provide for
Provisional Measure Number 927, of March 22, 2020	• labor measures to face the public calamity, created the possibility of establishing individual and collective work agreements;15.16
PL (project) 1,242/2020, project 2007/2020	• establishes that the bodies and entities of the Unified Health System (SUS), as well as private entities providing services, adopt, as a priority, measures to ensure the acquisition and distribution of personal protective equipment (PPE), while the state lasts of public calamity.15.16
Provisional measure 927	• (the suspension of vacations and licenses for health professionals);3,4
Ordinance Number: 467/20, Resolution 634/2020 COFEN and Resolution 516/2020 COFITO	• that enable telemedicine, covering pre-clinical care, care support, consultation, monitoring and diagnosis.3,4.
RN 453/2020 Separation of nursing team members infected with COVID-19 -	• National Health Agency (ANS) the edition of the resolution that included the coronavirus detection test in the list of mandatory procedures for workers with symptoms;1.2
NORMATIVE OPINION Number: 02 /2020/ COFEN EXCLUSIVE FOR THE PANDEMIC – COVID-19-	• establishes: GTSTAFF SIZING. Minimum parameters for Nursing professionals to care for patients affected by COVID-19;13
Decree 10.282/202 issued in public civil action 1022991-69.2020.4.01.3400	• highlights the high level of risk and the dramatic situation experienced by professionals. Therefore, Nursing professionals over 60 years of age or members of other risk groups for COVID-19 were removed from functions that require direct contact with suspected or confirmed cases of the new disease, in all hospitals and health units administered directly by the Unity.13

Table 5: Provisional measures, projects during the COVID-19 Pandemic

** To remove them from sectors or areas critical to COVID 19 care, it was necessary to replace employees.

their families, continuing with outpatient care in improved cases with indication of post-COVID sequential care. 20

Thus, the COVID-19 pandemic situation demands from nursing: leadership, political action, capacity for dialogue and social responsibility towards human life. Global nursing, historically, has always acted in moments of crisis, as protagonists on the front-line during conflicts, wars, environmental and humanitarian catastrophes, but little is described at the administrative level. (6,7)

In the COVID-19 pandemic, nursing professionals who are on the front line of fighting the disease, every day, build in practice, more qualified, ethical, technical and scientific care, in order to meet the patient's needs and provide full recovery. (6,7).

Nursing works a lot, describes little about its work and is proposing a change in paradigms, building a new moment in Nursing Human and Financial Resource Management. (9.10).

HYPOTHESIS

The central hypothesis of the work is that the Nurse Manager brings an impact on public spending by reducing iatrogenic and unnecessary expenses. However, it is believed that there must be more studies on the topic.

OBJECTIVE OF THE STUDY

The objective of the study was to report the work of the nursing supervisor nurse, during the COVID-19 Pandemic, describing the role of the Human and Financial Resources Manager Nurse, Service Flow Controller, Conflict Manager and Work Organizer.

Secondary objective is to encourage the entry of new Nurses into the MBA Management sector.

QUESTION: What is the impact of the Nurse Supervisor in dealing with the COVID 19 Pandemic?

ANSWER: Improve care, optimize resources, strengthen communication between teams, services and patients.

QUESTION: Can the form of service be improved?

ANSWER: Yes. Through an integrated service system.

QUESTION: Why must a Nurse take an MBA – Management course if he works with patients?

ANSWER: There are many ways to serve the patient, one can, for example, have administration categories, which require knowledge from such courses.

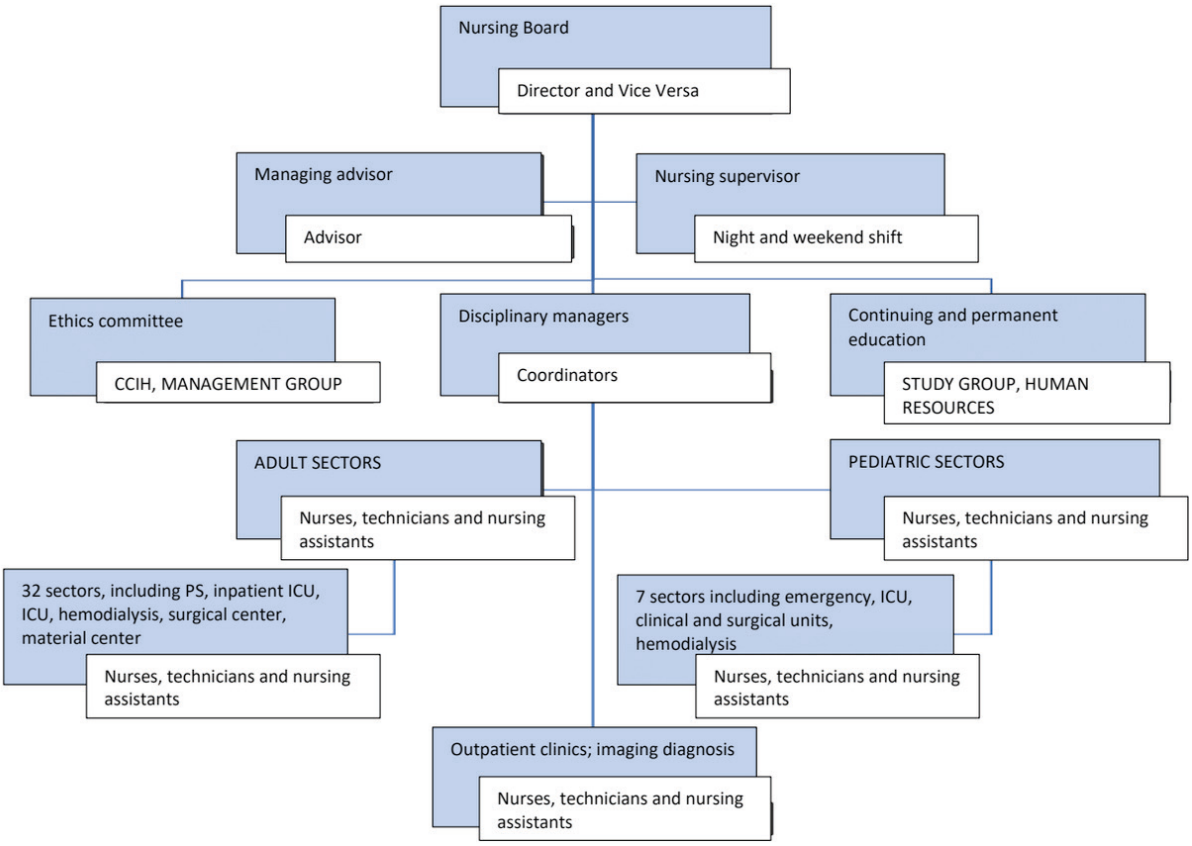
Tertiary OBJECT – impact of public spending on COVID 19 mortality

TERRITORIAL CUT or SCALE – state of São Paulo

TIME CUT or HISTORICAL SERIES – 2020 to 2021.

In this work we emphasize that the entire hospital came together in favor of the lives that were saved and the lives that we lost, the entire healthcare team, nurses, technicians, physiotherapists, doctors, hygiene, IT, administrative, engineering, pharmacy, reception, employees, safety, all professionals without forgetting any one joined forces and performance to emerge sectors, ICUs in ten days, the feeling of unity infected everyone who together formed a front of attention, battle against COVID-19, we are still in the Pandemic, but we left registered our work, struggle.

To build this entire "Covid-19 Assistance Front", it is worth noting that it was not a single job, by a single person, it took a total of as per table 6:



1- Nursing Work Organization Chart

Professional category	Amount
Nursing Assistants	2,200 professionals
Nursing Technicians	1,300 professionals
Nurses	1,450 professionals
Nursing Coordinators	15 professionals
Nursing Managers	10 professionals
Continuing Education	8 professionals
Nursing Supervisors shifts:	((Morning, Afternoon) during weekends) and Evening every night shift schedule 12 professionals
Nursing Management Council	3 professionals
Vice director	1 professional
Director	1 professional

Table 6: Number of Nursing professionals involved in COVID-19 care

** Total nursing workers 5,000 professionals

Arranged as shown in the following work organization chart.

As previously mentioned, companies' front-line work can be seen as a three-front fight. The customer demands attention and quality of service on the one hand, the organization demands efficiency and productivity on the other, and frontline staff are metaphorically caught in the center.22

This approach emerged as a relevant topic for Marinova, Ye and Singh in 2008, who together developed a scale that evaluates these elements through five dimensions: two orientations (productivity and quality) and three mechanisms (autonomy, cohesion and feedback). (22)

Conceptual models of service organizations recognize that "frontline" personnel significantly influence the customer experience. (22)

Front-line staff play a crucial role in providing services and building relationships with customers and their attitudes and behaviors towards customers determine the quality and satisfaction of service, so the performance of front-line staff is identified

as an important strategic issue for the cycle in the business environment, that is, effective management of customer interfaces. (22)

The Covid 19 pandemic brought an initial milestone for new thinking on how the world must begin to prepare for new pandemics, wars that emerged in the future, given the lack of managerial experience during this period. (23)

More comprehensive and significant studies must emerge with regard to professional and managerial preparation in order to help save and recover lives, there are no such studies yet, but certainly in the future, with technological advances, humanity will be able to withstand and not lose so many lives due to public health issues such as COVID-19. (23)

Without everyone's efforts, this work would not have been possible. The certainty is that in new pandemics, Wars when there is one, you can always count on the "Front Line" for accurate and effective service, just call, and the "Front Line" professionals will be ready. (24)

METHODS

The study is a conceptual integrative systematic narrative bibliographic review, with an explanatory-quantitative historical context based on the comparison of collected materials, with selection and description of the main findings of scientific articles in the years 2020 to 2021, in Portuguese and English, about Administrative Management of the Nursing Supervisor in the COVID 19 Pandemic. The databases used were: ScientificElectronic Library OnLine (SciELO), Medical LiteratureAnalysisandRetrieval System OnLine (MedLine), Google Scholar, Bireme, Cinahl, Embase, Cochrane ControlledTrialsDatabase, SciSearch.

Fig 6: Methodological Timeline

After thorough reading and considering the inclusion and exclusion criteria, 38 articles in total were pre-selected so far, of which 14 were eligible articles that discuss the need for nursing in the systematization of care in the process and in health education, in planning, human resources management, as well as in the creation of operational protocols and care flowcharts during the COVID - 19 pandemic in the year 2020 - 2021, with this still occurring and 20 articles discuss the topic of nursing administration unrelated the COVID19 pandemic, and 04 four articles were excluded because they did not contain any correlation on the study topic.

Included Articles talk about COVID	Deleted articles do not talk about nursing and/or COVID 19
14 articles highly relevant to the topic.	04 articles do not mention anything about the topic.
20 articles on nursing administration in emergency situations, war, catastrophes, other pandemics.	None excluded

Table 1: included and excluded articles

The relevance of nursing in all stages of care for COVID-19 is concluded, with the need for prevention, reception, treatment, control of spread, health promotion and control of the virus.

Descriptors Keywords: Nursing Administration, Coronavirus Infection, COVID-19, Flow of care, Infection Control.

The following exclusion criteria were adopted: articles that did not cover the topic covered or published prior to 2020, theses, books, congress and conference abstracts.

As this was a narrative bibliographic review, there was no need for submission to the Research Ethics Committee (CEP), on Plataforma Brasil in accordance with resolution 466/12 National Health Council (CNS).

BIBLIOGRAPHIC REVIEW MAP QUANTITATIVE INTEGRATIVE SYSTEMATIC NARRATIVE

However, the ethical standards of citations and references of the authors studied were guaranteed with the legitimacy of the information. Initially, the titles, abstracts and objectives were read, creating an initial list of 38 publications to achieve the general objective of this review. (6,7). A critical analysis of these studies was carried out, listing the most relevant information about the pandemic, historical context, epidemiological data, impact of actions taken, transmission and importance of nursing and nursing work.5,6

Of these 38 pre-selected articles, 14 publications were eligible: one article reports the experience in the formation of a philanthropic hospital to care for patients with Covid-19 or a suspected case in the state of Santa Catarina and two studies, Australian and North American, which are in English, to diversify the world view related to the study topic. (5,6)

Thus, the COVID-19 pandemic situation demands from nursing: leadership, political action, capacity for dialogue and social responsibility towards human life. Global nursing, historically, has always acted in moments of crisis, as protagonists on the front-line during conflicts, wars, environmental and humanitarian catastrophes, but little is described at the administrative level. (6,7)

In the COVID-19 pandemic, nursing professionals who are on the front line of fighting the disease, every day, build in practice, more qualified, ethical, technical and scientific care, in order to meet the patient's needs and provide full recovery. (6,7).

In the present study, the secondary objective is to leave an initial framework for the administrative construction of the Nursing service to, in the future, guide new concepts, new practices and generate new, more in-depth studies on the role of Nursing in difficult times. (7,9).

Nursing works a lot, describes little about its work and is proposing a change in paradigms, building a new moment in Nursing Human and Financial Resource Management. (9.10).

In this work we propose a discussion on the possibility of adopting and/or adapting proposals to the Brazilian reality, indicating measures that can be included in health service protocols, with a view to protecting and promoting the health of client patients treated during pandemics., thinking about new pandemics or catastrophes, wars.

RESULTS

Due to the COVID-19 pandemic, in the reality of a hospital, is it possible to highlight the role of the supervising nurse in the context of a crisis?

Management, whether from the University Hospital of study or Municipal, State and Federal Public Management, in view of the severity of the COVID-19 pandemic, carried out separate work, but joined forces in the construction of a Nucleus and a COVID-19 Crisis Committee, where several specialists interprofessionals in the area of technical control, administrative and assistance were able to perform their work with courage, determination and wisdom. (5)

The intra-hospital Management teams followed the Feedback administrative models, where they held meetings three times a week in order to debate and evaluate the implemented measures, as well as discuss the new demands raised daily by front-line professionals and with

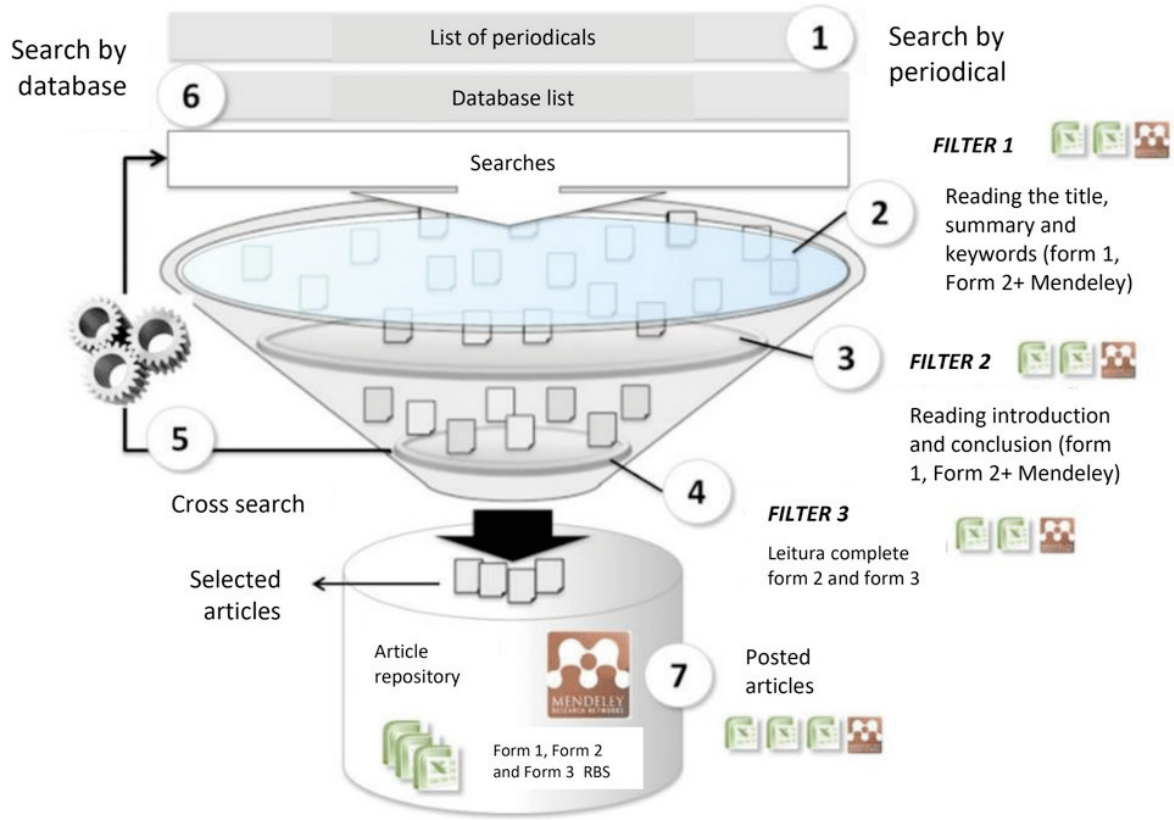


Fig.11 Interactive processing phase procedure, RBS Roadmap

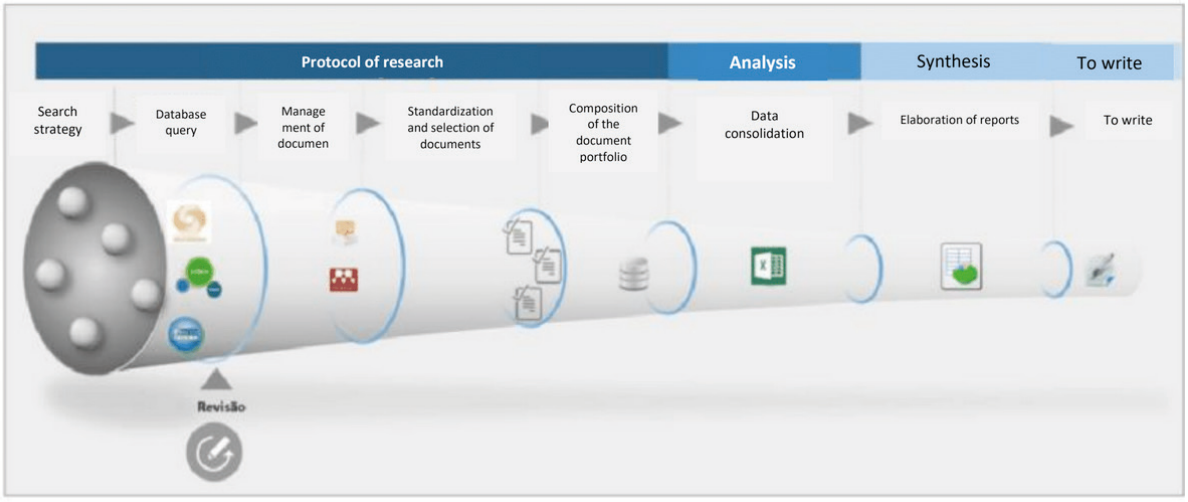


Fig.12 Representation of the SystematicSearchFlow method. Source: Ferenhof & Fernandes (2016, p. 556).

their respective area managers., with decisions aligned with the recommendations of the WHO (World Health Organization), AMIB (Brazilian Intensive Care Medicine Association), the Crisis Committee of the State of São Paulo, Professional Class Councils, Unions and the Ministry of Health of Brazil. (20)

In Figure 12 below we show the sequence of decisions related to what was discussed in the meetings – priorities, work cycle of determinations.

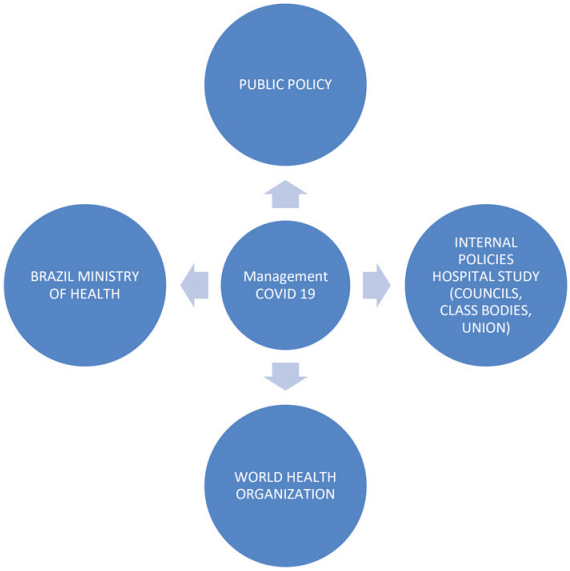


Figure 12: Protagonism of Crisis Management in the COVID-19 pandemic

Regarding operational flows that deal with the various aspects of care, the performance of nurses in clinical and organizational work stood out, deliberating decisive decisions regarding the structuring of physical areas, defined as "clean" non-COVID areas and "clean" COVID areas. dirty-contaminated", teamwork, construction of information and training for professionals who would work in these respective areas and population. (27,28,29)

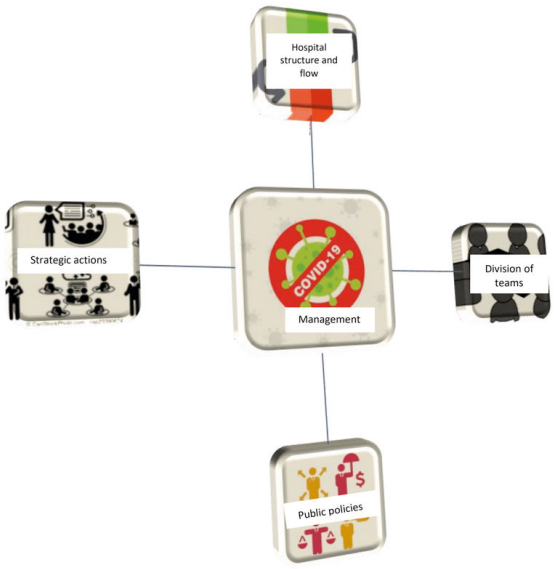


Fig.13: The Nurse's Work integrated with COVID Management – 19

Everything has to fit together like a business gear, each piece is important for the work of the other, if one-piece breaks or fails, the entire machinery is damaged, compromised and automatic replacement is necessary to return to operation.

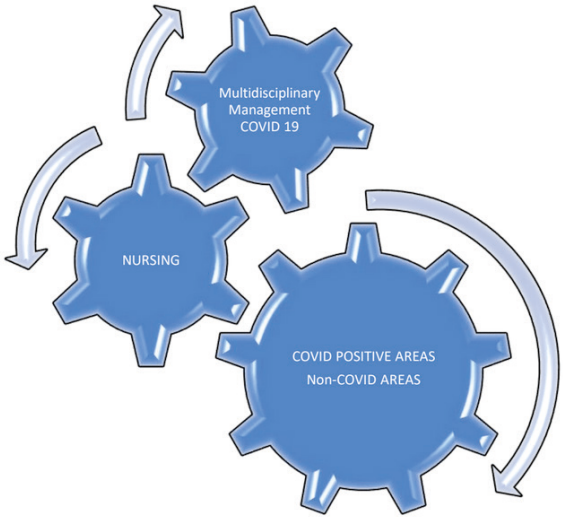


FIG. 13: Meshed work between MULTIDISCIPLINARY MANAGEMENT, NURSING AND COVID-POSITIVE AND NON-COVID SECTORS AREAS teams.

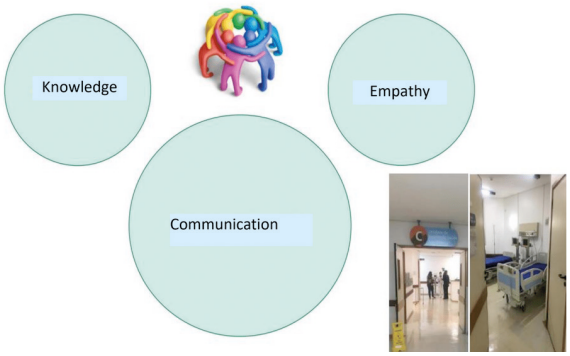
THE ROLE OF NURSING IN THE FACE OF THE COVID 19 PANDEMIC CRISIS

In a study carried out by nurses regarding management in the fight against COVID-19 in Chapecó, Santa Catarina, Brazil in 2020 at the height of the pandemic crisis, the role of nurses on different fronts of intra- and extra-Hospital Management was also highlighted.

At the Study Hospital, as well as in other hospitals reported in other studies, we also have a Standardized Language System: North American NursingDiagnosis- International (NANDA-I), NursingOutcomeClassification (NOC) and NursingInterventionsClassification (NIC).[29]

In figure 14 below we demonstrate the role of nurses on different management fronts in the fight against COVID-19 as also mentioned in another study carried out in Santa Catarina Brazil.

The care process during a crisis period must be made up of structured, integrated and coordinated teams continuously, reviewing care and administrative processes. (5)



Below are the Service Flow recommendations from the Ministry of Health – Brazil 2020/2021

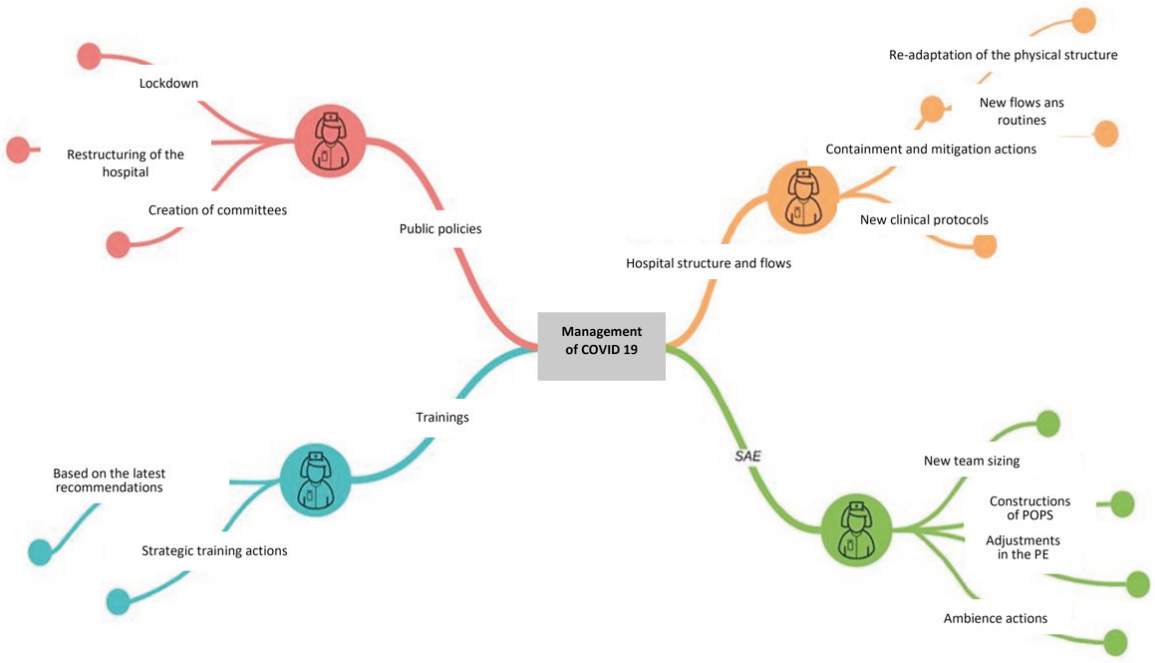


Fig. 14- Role of nurses on different management fronts in the fight against COVID-19. Chapecó, Santa Catarina, Brazil, 2020.(https://doi.org/10.1590/1980-265X-TCE-2020-0213)29

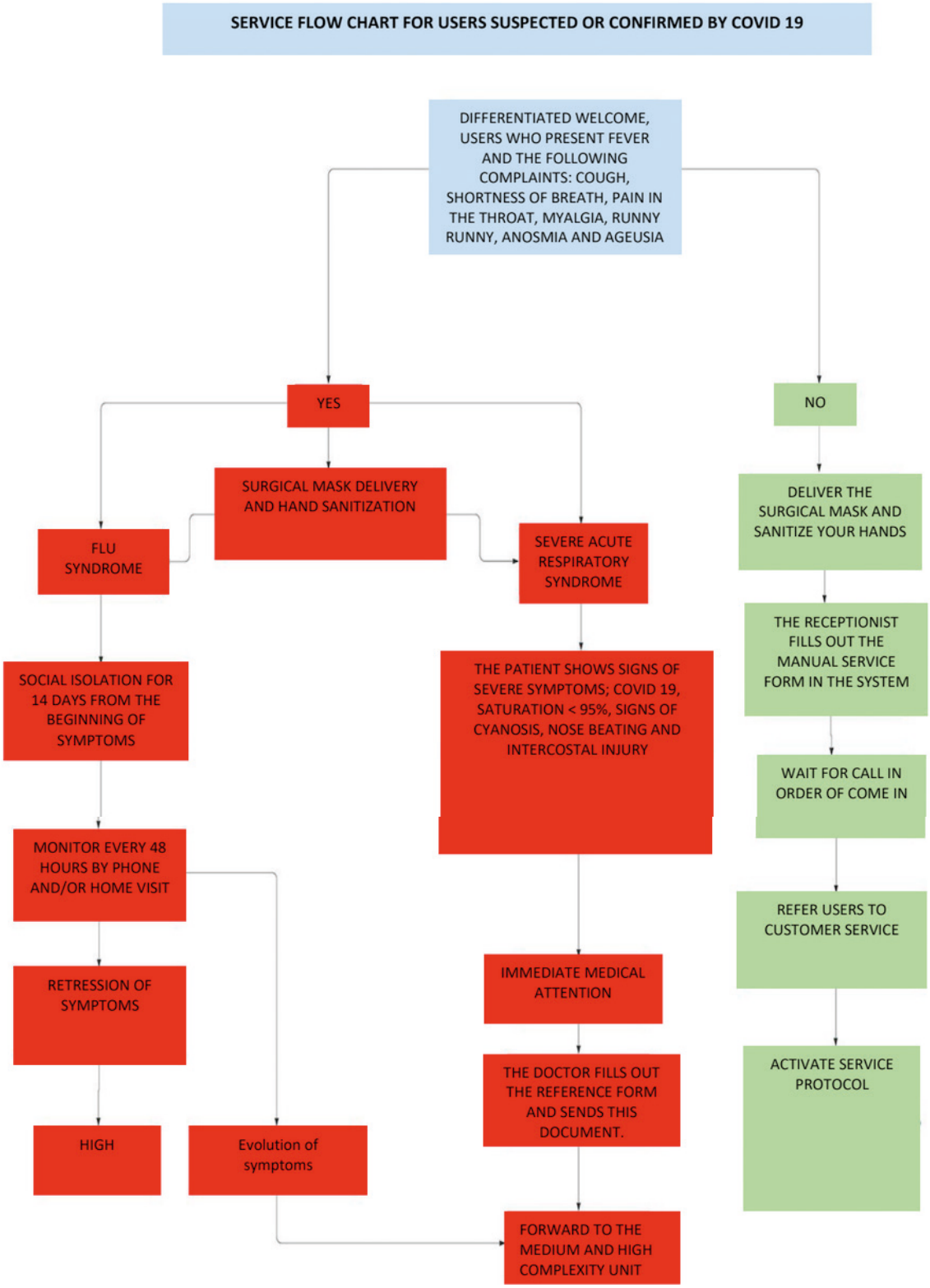
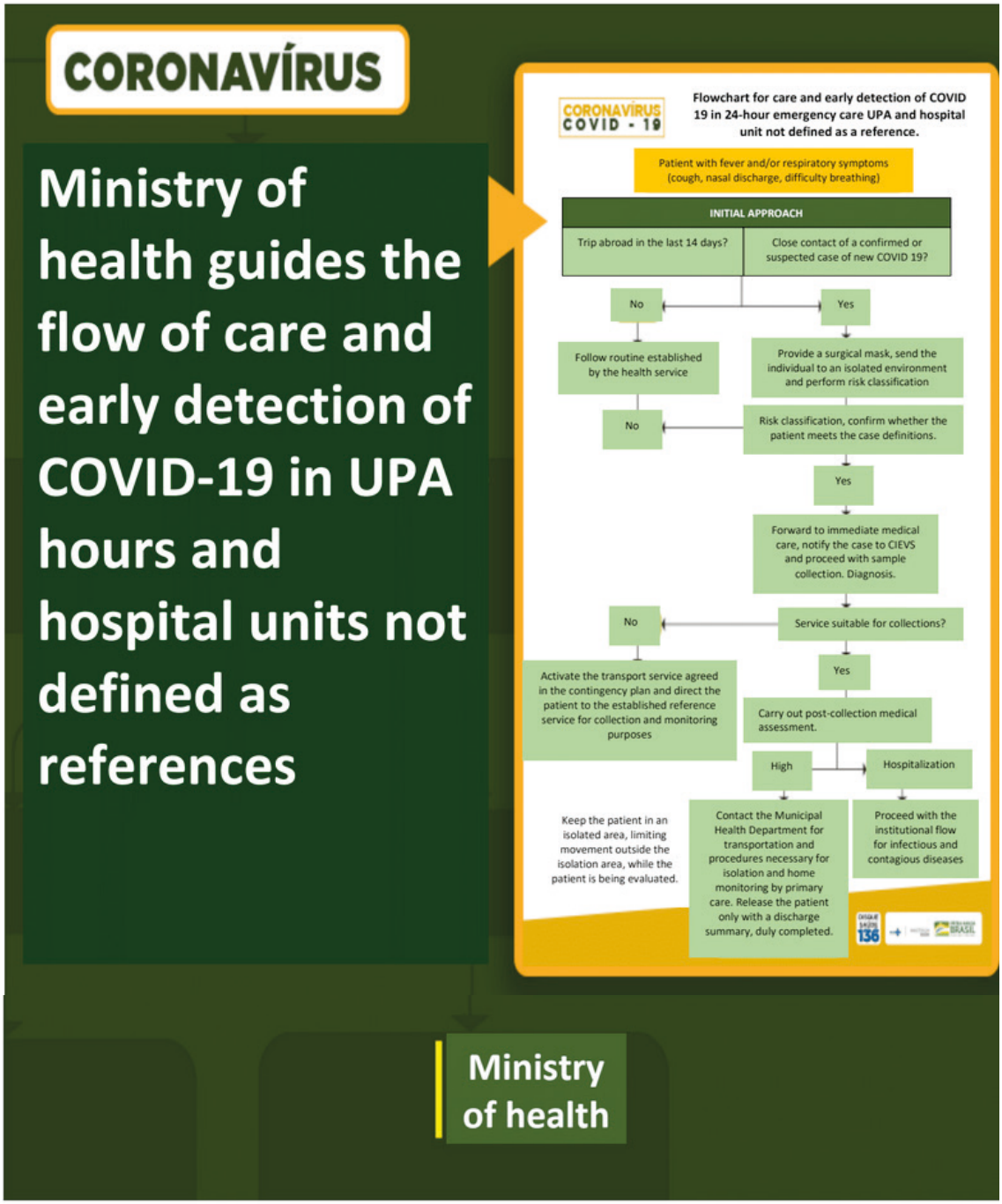


Fig. 15: Flowchart of COVID-19 care in the Emergency Room - Care up to ICU or hospital discharge in Day Hospital follow-up or client return.


CORONAVÍRUS
Ministry of health guides the flow of care and early detection of COVID-19 in UPA hours and hospital units not defined as references
CORONAVÍRUS COVID - 19
Flowchart for care and early detection of COVID 19 in 24-hour emergency care UPA and hospital unit not defined as a reference.
Patient with fever and/or respiratory symptoms (cough, nasal discharge, difficulty breathing)
INITIAL APPROACH
Trip abroad in the last 14 days?
Close contact of a confirmed or suspected case of new COVID 19?
No
Yes
Follow routine established by the health service
Provide a surgical mask, send the individual to an isolated environment and perform risk classification
No
Risk classification, confirm whether the patient meets the case definitions.
Yes
Forward to immediate medical care, notify the case to CIEVS and proceed with sample collection. Diagnosis.
No
Service suitable for collections?
Activate the transport service agreed in the contingency plan and direct the patient to the established reference service for collection and monitoring purposes
Yes
Carry out post-collection medical assessment.
High
Hospitalization
Keep the patient in an isolated area, limiting movement outside the isolation area, while the patient is being evaluated.
Contact the Municipal Health Department for transportation and procedures necessary for isolation and home monitoring by primary care. Release the patient only with a discharge summary, duly completed.
Proceed with the institutional flow for infectious and contagious diseases
136
Ministry of health

Because the COVID-19 pandemic also poses a potential biological risk to healthcare professionals, the Professional Assistance Flow was created.

Important points of the covid 19 epidemic

A person with infection transmits the coronavirus to 2 or 3 other people, on an estimated average: R0 = 2.2 and 3.3

Incubation period = 5 days (2-14 days)

Transmissibility period: unknown; up to 7 days from the onset of symptoms, however the period of transmissibility before the onset of symptoms is not known

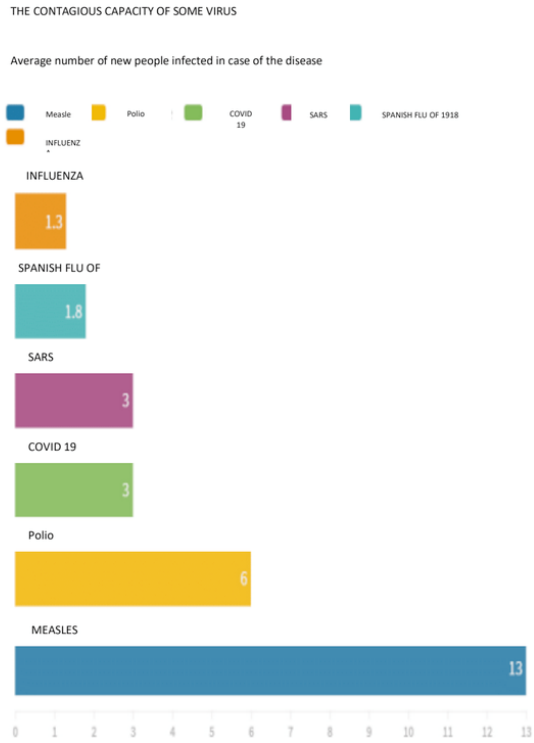
Methods of transmission: droplet + contact (may be via aerosol for procedures that generate these particles)

Persistence in the environment: up to 7 days. Very sensitive to hospital germicides and alcohol 70.

Most cases (90%) are mild respiratory situations.
COVID 19 lethality = 2% - 5%. Greater severity in elderly patients with previous or complicated pulmonary disorders and lethality can reach 15%. Korea, 0.6% (availability of diagnostic tests; positive early detection)

Diagnosis: SARS-COV2, real time.

Specific treatment: clinical trials with new and old anti-virals, nucleotide analogues, Lopinavir-ritovanir, hydrochloroquine associated or not with azithromycin, among others.
Vaccine in progress



Source: National Center for Biotechnology information

VACCINATION IN PROGRESS

The Vaccination Campaign against COVID-19 began on January 19, 2021 in the city of São Paulo. (20)

CONCLUSION

The study's limitation was the small number of publications and little practical clinical experience regarding COVID-19, due to the novelty of the topic in question. This way, the socialization of this experience of actions to combat COVID-19 is fundamental for understanding the advantages that teams can bring to health services in Primary Health Care, not only in times of pandemic, as they enable the achievement of better results are shared and developed with everyone's collaboration and cooperation.

It is worth noting that this flow favored the screening of symptomatic cases, making earlier care and referral to the specialized network the most effective path, with a view to reducing complications in the progression of the disease. It is important to highlight that care for asymptomatic users or those presenting other care demands, such as the need for continued treatment of hypertension and diabetes, application of medication, vaccines and dressings, remained maintained in health units15.

It is also clear that the implementation of service flows had impacts on the direction and accessibility of users treated at UBS, reducing overcrowding in UPAS and reference hospitals. This fact is due to the allocation of users according to the case and clinical management, avoiding unnecessary

expenditure on supplies. This intervention also provided highly complex units with the availability of beds for the most serious cases of COVID-19, as recommended by the Ministry of Health11.

Another important issue to be considered was the implementation of early immunization actions for populations vulnerable to Influenza. The 22nd National Influenza Vaccination Campaign was brought forward by the Ministry of Health, due to the Coronavirus pandemic. The campaign began in Salvador, in March 2020, with the intention of immunizing the population against influenza to reduce the circulation of this virus and the impact on healthcare services due to the similarity with the signs and symptoms of COVID-1919. 12,13,14

Given the potential of the influenza virus to cause severe respiratory illness, early immunization reduces the risks of respiratory infection, hospitalization and mortality. (20).

Research that describes the trend in mortality rates due to cerebrovascular diseases (CBD) in the elderly, in the period between 1980 and 2012, before and after vaccination campaigns against influenza, concluded that there was a reduction in mortality from CbD in the elderly population. (21).

This way, the importance of vaccination is noted in order to minimize risks to the health of the population. (21).

While these actions are being taken, studies are taking place in search of solutions, treatments and cures for COVID-19 and to prepare for new viruses that have yet to emerge. (5,6).

Vaccination inhibits SARS-CoV-2 infection to this day, helping to combat COVID-19, which consists of carrying out measures to isolate cases and investigate effective drugs to reverse the severe form of the disease. (6.7).

Based on studies7-8,11, it is known that social distancing is an effective measure against the spread of the virus, thus reducing the number of cases.

Nursing supervision is "an action or effect of supervising (directing, guiding or inspecting at a higher level), with the role of the nursing supervisor acting in "an educational and continuous process, which fundamentally consists of motivating and guiding supervisees in the execution of activities based on standards, in order to maintain high quality of services provided". (12,13,14).

Supervision must be understood as a process that must contain, in the activities carried out, the stages of planning, execution and evaluation, through the use of instruments that promote the quality of care, through four objective functions: (15,16)

- Assignment: Receives permissions to perform the administrative actions defined for this role. You can assign multiple administrative roles to a user.
- instruction:
- observation:
- assessment:

The supervising nurse has to draw up a plan with a schedule that includes activities that will be developed, deadlines for their execution and evaluation of results, evaluating the service in which he is inserted and carrying out his self-assessment regarding the service performed by him directly or indirectly as well. (30, 31,32,33)

It is necessary for the supervisor to have autonomy and involve employees, employees in decision-making, that is, the employee/ servants and supervisors have to make decisions, work together, listening and helping the other, establishing mutual trust between supervisor and supervised. (30,31,32,33).

- To achieve this, three methods are needed:
- Direct Method: consists of observing nursing staff;

- Indirect Method: offers encouragement for the nursing team to become aware of their performance and seek to improve;
- Multifaceted method: application of various supervision techniques with the purpose of reaching objective conclusions, allowing the team to participate in problem solving.

Nursing supervision is an instrument for promoting quality in care, but it is still a topic that is little discussed and lacks research. (28,29)

During Nursing undergraduate training, there is not a great motivational movement to learn how to manage, undergraduates are more interested in learning techniques, handling equipment, pathologies and their respective treatments, with a predominance of the biomedical model and practical evidence. (29)

For this reason, postgraduate improvement in administration is necessary in Master of Business Administration (MBA) Master in Business Administration in Health Economics and Management, which aims to contribute to the improvement of professionals from different sectors working in areas related to health. (30,31,32,33).

Discussing topics that will provide knowledge of the methods and techniques that assist the management process and decision-making in the health system. Fundamentals and concepts of evidence-based medicine will be covered, enabling learning how to obtain the best evidence on health care procedures. (30,31,32,33).

Competency management: as an administrative tool to assist in assigning roles in nursing work

The training management method aimed at developing the set of knowledge, skills and attitudes necessary to perform the functions of employees, collaborators, students, aiming to achieve the institution's objectives. (30,31,32,33).

Based on this point of view, we seek to minimize skills gaps that may exist, aiming to guide and encourage workers and students to eliminate limitations between their current capabilities and what the institution, based on society, expects them to do. needed. (33)

The use of competency management provides, among others, the following benefits:

- The clear definition of professional profiles that can promote increased productivity;
- A clear focus for team development efforts, based on the needs of the organization and the profile of its employees, employees, students;
- The prioritization of investments in training, favoring the obtaining of a more consistent return;
- Performance management through criteria that are easier to observe and measure;
- Raising employees' awareness of the importance of taking responsibility for their self-development.

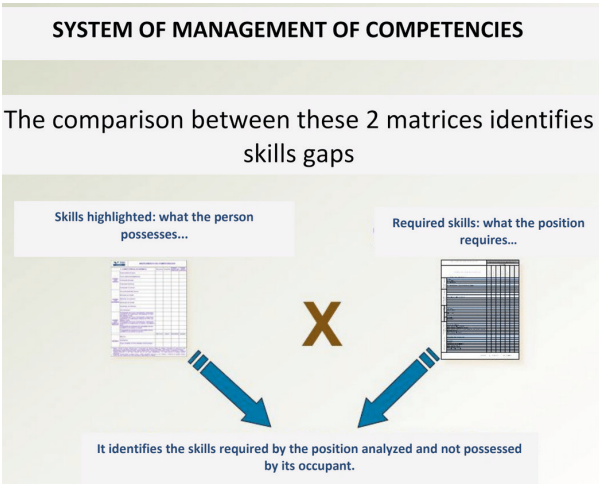


Fig. 13: Skills Management System in: Source: (GUIMARÃES, BORGES ANDRADE, MACHADO, VARGAS, 2001). Skills-based Training Management Model 33

SPEECH

This MBA course is aimed at healthcare professionals, managers and administrators of public or private healthcare services, as well as professionals from other areas involved in the discussion of topics relevant to the healthcare system.

In the MBA course we have several subjects that help us guide the daily life of a Manager, Supervisor, or other business areas related to health.

For someone to be prepared for a pandemic similar to the one we went through or for adverse situations that we will go through in the future, it is necessary to fulfill these three criteria: competence, skill and attitude, according to the model of the organization, institution or organization. (29,30,31,32,33)

In people management we use some administrative concepts: for example, CHA.34

The term CHA is an acronym that is formed from three criteria: Knowledge, Skill and Attitude. The concept is used by people management when we talk about competency-based management. (34)

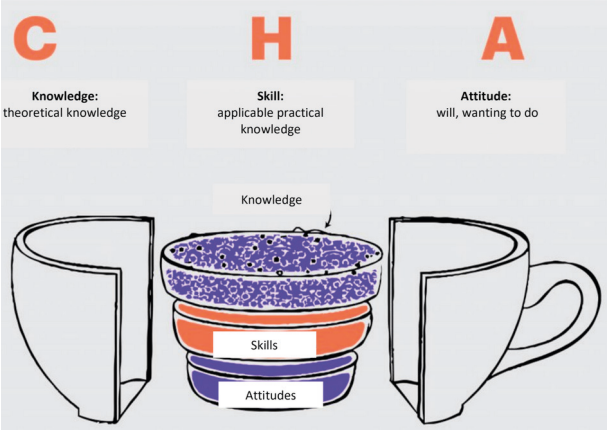


Fig 15: CHA Concept in Image
Source: https://mereo.com/gestao-de-competencias/30/10/2021.

- C = knowledge: before the industrial revolution, a professional was classified as competent because they had vast theoretical knowledge about the area they were in. Since then, a lot has changed and in this COVID 19 pandemic we learned that it no longer works like that.
- H = Skill is knowing how to do it, in short it is putting into practice what you learn in theory. A person who meets this criterion has already made mistakes, reinvented themselves and tried several times, so they have become skilled in carrying out that task, process or procedure.
- A= Attitude refers to action, wanting to do it. Many professionals have the appropriate knowledge and necessary skills, but decide not to do what needs to be done. And we all know that without action it is not possible for things to come to fruition.

Companies invest in training and continuing education so that employees maintain high performance in the field of Knowledge, and they provide the work environment for employees to do what they learned in courses and training, thus consolidating the Ability criterion, but the Attitude is intrinsic to the individual, without attitude, without courage, without will, things don't move forward, no matter how good the manager is, no matter how much resources the company has, training we need proactive employees.29,30,31,32.33

A proactive person has a great ability to act autonomously and anticipate possible problems. In general, a proactive person usually has the ability to notice a problem early on, or even before it happens.29,30,31,32,33

PROACTIVELY MANAGING PANDEMIC SITUATIONS

- we are all diamonds to be polished 29,30,31,32,33

The nursing manager during the pandemic experiences two linguistic situations among the company's employees: reactive language and proactive language. (29,30,31,32,33)

The positioning of a nursing manager must be focused on emotional and rational intelligence, which is extremely fundamental in everyday decision-making and even in the way we see situations. (29,30,31,32,33)

The way we approach a situation determines our quality of life, attitudes, way of thinking and results. That's why it's important to learn how to replace reactive language with proactive language, as it helps us obtain more positive results in our daily lives, examples in the table below:

REACTVE LANGUAGE	PROACTIVE LANGUAGE
There's nothing I can do	Let's look for alternatives...
I'm like that and that's it!!	I can take another action...
Ah if I could...	I'll do...
I can't...	I choose...
I predict...	I prefer...
It is difficult...	It's possible...
It's not my job...	Can I help you...
It is difficult...	Let me solve...
It's not my job...	
It's not my problem!!	

FIG.16: We all have magnitudes - we are diamonds to be polished - examples of reactive language and how you can change them. Replace "there's nothing I can do" with "let's look for alternatives". This shows that you are committed to solving a certain problem and it is easier to find a solution. (29,30,31,32,33)

Try instead of saying "I'm just like that and that's it", say "I can take a better attitude" so that you can see the situation from another angle and try to improve thoughts that you thought were irreversible, while maintaining control of the situation. Everything and all behaviors can be improved, we are not objects that need to be undone, but we can recycle ourselves. (29,30,31,32,33)

Change "they will never accept that" for "I will look for a more effective presentation" as a way of showing that you have alternatives to convince, persuade and show another point of view, opening doors to new business opportunities, treatments, patient care for example: in COVID 19, we do not have effective medicines to cure it, but we mitigate the effects, we can use measures against contagion or ways to prevent the spread of the disease.(29,30,31,32,33).

Don't say "I have to do this". Determine "I want to do this" as a way to envision the outcome. Wanting is a desire, a positive emotion and this way you will be able to carry out an activity that you are probably procrastinating, for example: I am going to meet the demand of customers with COVID using personal protective equipment and strict hygiene measures to avoid getting infected - I am taking care of myself to take care of others too. (30)

When asked to carry out research on COVID, change "I can't" to "I will try to do it". Don't put limits on this situation. Try to learn what you need to achieve your goal as a way to change the perspective of this negative image with more self-esteem and improving your image. (30,31,32,33)

A positive attitude emanates messages that awaken beliefs that we can act to make things happen, overcoming any adverse situations, adding positive thoughts, actions, bringing people closer and achieving greater results. (33)

The management of a nursing supervisor requires a strategic look, an evaluative and systematic conduct, a skilled and insightful proactive attitude, to be able to guide employees, people and bring results. (30,31,32,33)

The entire team providing care or support for dealing with a pandemic must have: vision, commitment and purpose, key words of a manager:

- be proactive – responsibility, choice, initiative and creativity;
- listen with empathy – first understand, then be understood (respect, mutual understanding);
- At some point during your day, ask your employee: "How are things going and how are you feeling? (genuinely practice listening with an open heart to the employee's problem) he will tell you everything that is happening and then vent his problems and this makes him de-stress. ** you can learn a lot by listening to them. (32.33)
- Create Synergy: creativity, cooperation, diversity and humility always, self-control of emotions and actions, think about how you would like to be treated and how you are treating yourself - self-evaluation - action causes reaction and inhibits creativity and collaboration. In the table below, the four points of a high-performance competency-based management vision. (32)

To evaluate companies' front-line employees, we have a useful research instrument for practical understanding of the interactions between strategic orientations and front-line mechanisms. The reliability and validity of the Brazilian version of the Marinova, Ye and Singh scale promote the possibility of use of this instrument in future research that seeks specific analyzes of different research environments, as shown in figure 18 below. (30,31)

ORIGINAL SCALE VERSION AND ADAPTED BRAZILIAN VERSION OF ASSESSMENT OF FRONT-LINE EMPLOYEES

This Brazilian version of the Marinova, Ye and Singh scale has limitations, two limitations relating to the study in terms of the method used, more specifically in the data collection stage. According to the authors of the scale: "Despite the convenience and accessibility of the research tool used in the online phase (Google Forms), it offers little control to the researcher and the study had a sample of students; in other words, in the author's own description: "research carried out with students may present biases and do not allow generalizations". (30.31).

The author of the front-line assessment scale reports in his study that there was no intention of inferring information for the population, but rather validating a measurement scale, in addition, "the homogeneity bias of students is reduced due to the heterogeneity of the field of business of the represented companies and the nature of each participant's work".30,31

RESULT

Health service organizations or companies that provide health services with a high number of employees involved in direct contact with customers have a large participation in the national economy of resources and promotion of the nation's health and, therefore, it is necessary to implement academic studies aimed at the practice of front-line work to establish management of people and financial resources in a state of pandemic, such as the COVID 19 pandemic.

In this pandemic situation of the COVID-19 crisis that we are still experiencing, nursing requires: leadership, political action, capacity for dialogue and social responsibility towards human life. That's why our group proposes a discussion on the possibility of adapting

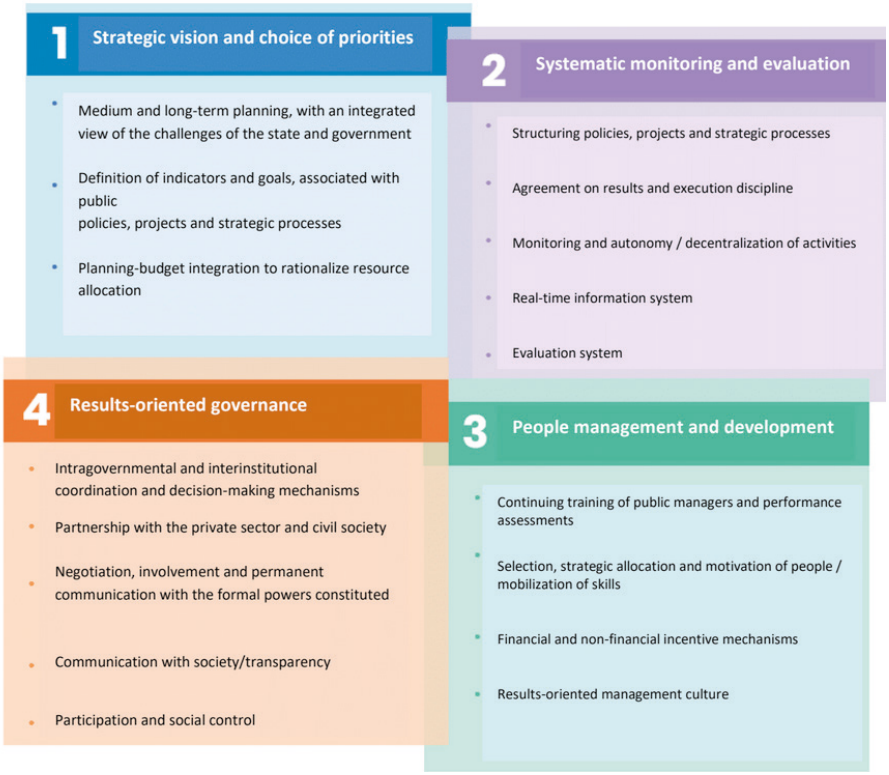


Fig 17: Four points of a high-performance competency management vision. PRAHALAD, C.K.; HAMEL, G. The core competence of the corporation. Harvard Business Review, v.68, number: 3, p.79-91, May/June 1990.32

Original scale	Adapted brazilian version
Productivity Orientation (α = 0.83) • (mgmt1) Management decisions reflect serious intentions to improve hospital productivity. • (mgmt2) Management urges employees to cut hospital costs. • (mgmt3) Employees are expected to focus on increasing efficiency. • (mgmt4) Enhancing organizational productivity is a priority for the management.	**Production advice (α = 0,71)** • (mgmt1) Management decisions reflect serious intentions to improve the company's productivity • (mgmt2) Management encourages workers to cut company costs • (mgmt3) Employees are expected to focus on increasing efficiency. • (mgmt4) Improving organizational productivity is a priority for management
Quality Orientation (α = 0.88) • (mgmt5) Management places the highest priority on delivering the best-quality care. • (mgmt6) Management views medical errors as opportunities to improve the quality of medical care. • (mgmt7) Management focuses on ensuring the highest levels of patient satisfaction. • (mgmt8) Management views patient complaints as opportunities to improve future patient satisfaction.	**Quality advice (α = 0,89)** • (mgmt5) Management places the highest priority on delivering the best quality service. • (mgmt6) Management sees service failures as opportunities to improve service quality • (mgmt7) Management focuses on ensuring the highest levels of customer satisfaction • (mgmt8) Management views customer complaints as an opportunity to improve future customer satisfaction
Unit Autonomy (α = 0.87) You have... • (auto1) the freedom to do their job in the way they thought best. • (auto2) opportunities to do whatever was needed to provide quality patient care. • (auto3) activities that allowed for independent thought and action.	**Unit autonomy (α = 0,81)** You have: • Autonomy 1: the freedom to do your work the way you think is best • Autonomy 2: Opportunities to do whatever is necessary to provide quality customer service • Autonomy 3: activities that allowed independent thought and action

Unit Cohesion (α = 0.94) • (coh1) Employees have a shared sense of community and purpose. • (coh2) One can count on assistance from fellow employees. • (coh3) One can trust coworkers to lend a hand in need.	Unit cohesion (α = 0,86) • Cohesion 1: Employees have a shared feeling of community and purpose • Cohesion 2: Employees can rely on coworkers for help. • Cohesion 3: Employees can rely on colleagues to lend a hand if needed.
Performance feedback (α = 0.96) • (feed1) Managers provide useful feedback to individual employees. • (feed2) Managers discuss methods for improving individual performance. • (feed3) Managers provide data on individual performance.	Performance feedback (α = 0,85) • Feedback 1: Managers provide useful individual feedback to workers • Feedback 2: Managers discuss methods to improve individual performance • Feedback 3: Managers provide data on individual performance

Fig. 18: Brazilian version of the Marinova, Ye and Singh scale Assessment of companies' front-line employees. Notes: Extraction method = principal components analysis; Rotation method = Varimax with Kaiser normalization. Indos Reis Alba, George, Slongo, Luiz Antonio, Frontline mechanisms and business guidelines: translation, adaptation and validation of a scale. Administration Magazine - RAUSP [Internet]. 2013;48(3):469-480. Retrieved from:https://www.redalyc.org/articulo.oa?id=223428132007[31]

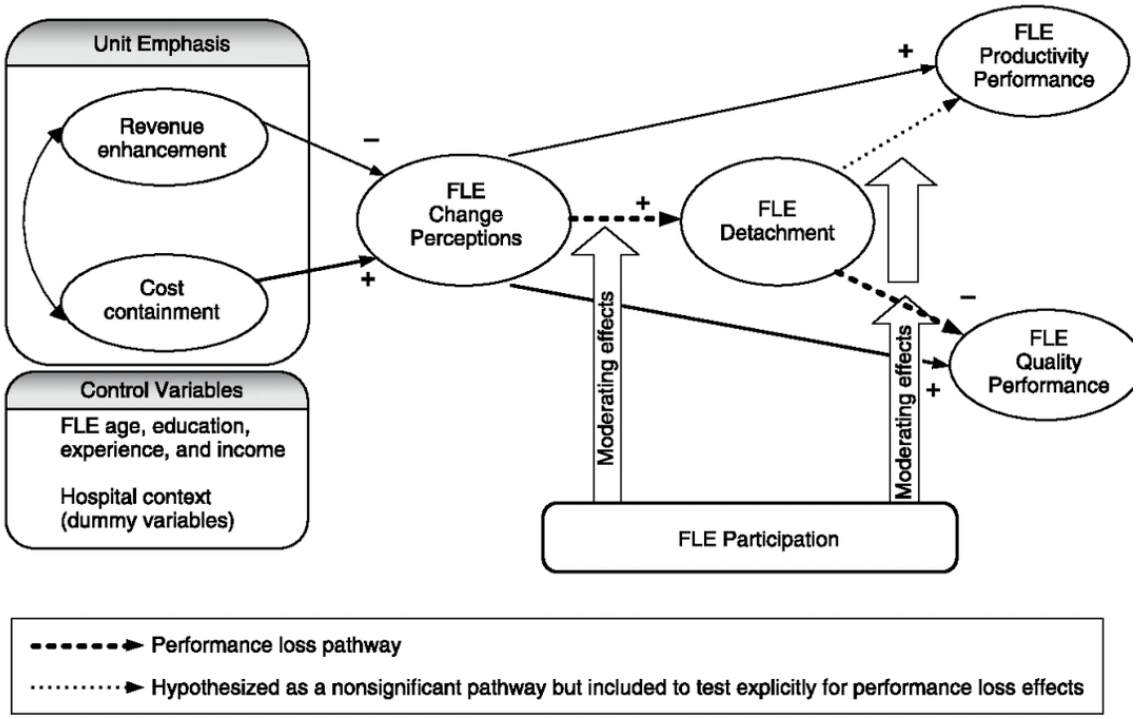


Figure 18: The Proposed Model for Strategic Change and Performance Loss in the Front Lines- In: Jun Ye, DetelinaMarinova, &Jagdip Singh: Strategic Change Implementation and Performance Loss in the Front Lines.30

proposals, scale, new concepts, new practices and generating new, more in-depth studies on Nursing's performance in difficult times, in order to build treatment guidelines in pandemic crises. (7, 9.)

Although limited in scope, this research makes contributions to the area, identifies gaps and indicates paths for future studies. As this is a work on a topic in evidence and whose assumptions still require empirical investigation, it is expected to have offered contributions to the theoretical and practical debate surrounding the subject, as well as providing opportunities for new research to be carried out.

REFERENCES

1-ANVISA, National Health Surveillance Agency. Technical Note nº 04/2020 GVIMS/GGTES/ANVIS.http://portal.anvisa.gov.br/documents/33852/271858/Nota+T%C3%A9cnica+n+04-%20-2020+GVIMSGGTESANVISA/ab598660 -3de4-4f14-8e6f-b9341c196b28.

2-DI GIOVANNI, G.; NOGUEIRA, MA (Orgs.). Dictionary of public policies. 2nd ed., São Paulo: FUNDAP; UNESP, 2015. Austin, Texas: Kahle Foundation, 2005.

4-LE GOFF, Jacques. The medieval roots of Europe. Petrópolis: Vozes, 2011.MS, Ministry of Health. Coronavirus and new coronavirus: what it is, causes, symptoms, treatment and prevention. https://www.saude.gov.br/saude-de-az/ coronavirus.

5-REZENDE, Joffre Marcondes de. In the Shadow of the Plane Tree: Chronicles of the History of Medicine. São Paulo: Editora Unifesp, 2009.

6-ZHU, N., ZHANG, D., WANG, W., LI, X., YANG, B., SONG, J.,... AND NIU, PA Novel Coronavirus from Patients with Pneumonia in China, 2019. New England Journal of Medicine, 2020.N Engl J Med 2020; 382:727-733 DOI: 10.1056/NEJMoa2001017

7-Van Kampen JJA, van de Vijver DAMC, Fraaij PLA, et al. Duration and key determinants of infectious virus shedding in hospitalized patients with coronavirus disease-2019(COVID-19). Nat Commun. 2021;12(1):267. Published 2021 Jan 11.doi:10.1038/s41467-020-20568-4

8-Zou L, Ruan F, Huang M, Liang L, Huang H, Hong Z, et al. (2020). SARS-CoV-2 Viral Load in Upper Respiratory Specimens of Infected Patients. N Engl J Med, 382(12), 1177-1179. doi:10.1056/NEJMc2001737Wölfel R, Corman VM, Guggemos W, Seilmaier M, Zange S, Müller MA, et al. (2020).

9-Virological assessment of hospitalized patients with COVID-2019. Nature 2020 May;581(7809):465-469. doi:10.1038/s41586-020-2196-x Bullard J, Durst K, Funk D, Strong JE, Alexander D, Garnett L, et al. Predicting InfectiousSARS-CoV-2 From Diagnostic Samples. Clin Infect Dis 2020 May 22. doi:1093/cid/ciaa638

10- Li N, Wang X, Lv T. Prolonged SARS-CoV-2 RNA Shedding: Not a Rare Phenomenon.

11-Interim Guidance on Duration of Isolation and Precautions for Adults with COVID19,UpdateFebruary13,2021. Available:https://www.cdc.gov/coronavirus/2019ncov/hcp/duratioisolation.htmlAnvisa.TechnicalnoteGVIMS/GGTES/ANVISA No 04 /2020 – 02/25/2021. Guidelines for health services: prevention and control measures that must be adopted when providing care to suspected or confirmed cases of infection with the new coronavirus (SARS-CoV-2).

12https://br.sputniknews.com/tags/organization_Ministerio_da_Saude_da_Russia/https://news.un.org/pt/tags/organizacao-mundial-da-saude

13-https://www.paho.org/bra

14-http://portalms.saude.gov.br/

15-https://www.sciencemag.org/

16-https://science.sciencemag.org/content/early/2020/04/14/science.abb5793?rss=https://coronavirus.unifesp.br/noticias/hospital-sao-paulo-tem-54-leitos- de-uti-covid-accredited-by-the-ministry-of-health on 7/31/2021.

17-https://g1.globo.com/sp/sao-paulo/https://g1.globo.com/sp/sao-paulo/noticia/2021/04/07/centro-de-contingencia-do-coronavirus-evaluates-extender-phase-emergencial-em-sp.ghtml on 08/03/2021.

18-http://www.saude.sp.gov.br/ses/perfil/cidadao/homepage/outros-destaques/covid-19-plano-de-contingencia-boletins-diarios-e-outras-informacoes on 03.08. 2021.

19-http://www.transparencia.sp.gov.br/coronavirus.html on 08/03/2021

20-https://www.spdm.org.br/onde-estamos/hospitais-e-pronto-socorros/hospital-sao-paulo on 03.08.2021

21-http://www.cofen.br – 28.07.2021

22-Government Portal: Government of SP determines quarantine throughout the State. On 08/19/2021 https://www.saopaulo.sp.gov.br/ultimas-noticias/ao-vivo-governo-de-sp-anuncia-novas-medidas-para-combate-ao-coronavirus-no-estado/

23-COVID Crisis Contingency Plan Dr. Medina – SPDM MBA course on 08/18/2021

24-https://www.observatoriodasmetropoles.net.br/mortalidade-por-covid-19-em-sao-paulo-ainda-rumo-a-periferia-do-municipio/ on 19.08.2021

25-https://cidades.ibge.gov.br/brasil/sp/sao-paulo/ on 19.08.2021

26-https://www.seade.gov.br/population clock/Fundação Seade on 19.08.2021

27-Robert Verity, Lucy C Okell, Ilaria Dorigatti, Peter Winskill, Charles Whittaker, NatsukoImai, Gina Cuomo-Dannenburg, Hayley Thompson, Patrick GT Walker, Han Fu, Amy Dighe, Jamie T Griffin, Marc Baguelin, SangeetaBhatia, AdhirathaBoonyasiri, Anne Cori, ZulmaCucunubá, Rich FitzJohn, Katy Gaythorpe, Will Green, Arran Hamlet, Wes Hinsley, Daniel Laydon, GemmaNedjati-Gilani, Steven Riley, Sabine van Elsland, Erik Volz, Haowei Wang, Yuanrong Wang, Xiaoyue Xi, Christl A Donnelly, Azra C Ghani, Neil M Ferguson - Estimates of the severity of COVID-19 disease

28-https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html on 08/19/2021

29- Bitencourt, Julia Valeria de Oliveira Vargas; Meschial, William Campo; Frizon, Gloriana; Biffi, Priscilla; Souza, Jeane Barros de; Maestri, Eleine.Nurse's protagonism in structuring and managing a specific unit for Covid-19 / Nurse's protagonism in the structure and management of a specific unit for Covid-19 / Nurse's protagonism in structuring and managing a specific unit for Covid-19 Text & context enferm; 29: e20200213, Jan.-Dec. 2020. graf(https://doi.org/10.1590/1980-265X-TCE-2020-0213) -https://doi.org/10.1590/1980-265X-TCE-2020-0213

30- Jun Ye, DetelinaMarinova, &Jagdip Singh. The Proposed Model for Strategic Change and Performance Loss in the Front Lines- In: Jun Ye, DetelinaMarinova, &Jagdip Singh: Strategic Change Implementation and Performance Loss in the Front Lines.156Journal of MarketingVol. 71 (October 2007), 156–171© 2007, American Marketing AssociationISSN: 0022-2429 (print), 1547-7185 (electronic)DOI:10.1509/jmkg.71.4.156.

31- dos Reis Alba, George, Slongo, Luiz Antonio, Frontline mechanisms and business guidelines: translation, adaptation and validation of a scale. Administration Magazine - RAUSP [Internet]. 2013;48(3):469-480. Retrieved from:https://www.redalyc.org/articulo.oa?id=223428132007;dos Reis Alba, George, Slongo, Luiz Antonio Frontline mechanisms and business guidelines: translation, adaptation and validation of a scale. Administration Magazine - RAUSP [online]. 2013, 48(3), 469-480[Consultation closes December 25, 2021]. ISSN: 0080-2107. Available at: https://www.redalyc.org/articulo.oa?id=223428132007

32- PRAHALAD, CK; HAMEL, G. The core competence of the corporation. Harvard Business Review, v.68, number: 3, p.79-91, May/June 1990.

33- Brandão HP Skills management and performance management: distinct technologies or instruments of the same construct?RAE - Revista de Administração de Empresas Jan./Mar. 2001RAE v. 41 n. 1 Jan./Mar. 2001.

34-. ICKO wedge. Ruthes RM, Cunha ICKOUnderstanding skills for application in nursing.RevBrasEnferm, Brasília 2008 Jan-Feb; 61(1): RevBrasEnferm, Brasília 2008 Jan-Feb; 61(1): 109-12

35- GUIMARÃES, BORGES ANDRADE, MACHADO, VARGAS. Competence Management System in: Source:(2001). Competency Training Management Model.Estudos de Psicologia 2007, 12(2), 149-158

REFERENCE LIST OF FIGURES

13-Fig. Skills Management System in: Source:(GUIMARÃES, BORGES ANDRADE, MACHADO, VARGAS, 2001). Skills-based Training Management Model

15-Fig.cha:FonteImage:https://mereo.com/gestaodecompetencias/30/10/2021

18- Fig. Brazilian version of the Marinova, Ye and Singh scale Assessment of companies' front-line employees. Notes: Extraction method = principal component analysis; Rotation method = Varimax with Kaiser normalization. In dos Reis Alba, George, Slongo, Luiz Antonio, Frontline mechanisms and business guidelines: translation, adaptation and validation of a scale. Administration Magazine - RAUSP [Internet]. 2013;48(3):469-480. Retrieved from: https://www.redalyc.org/articulo.oa?id=223428132007 31

DICTIONARY OF TERMS

RNA = Ribonucleic acid is a type of nucleic acid, a linear polymeric molecule made up of smaller units called nucleotides. It intervenes in several important biological functions such as genetic coding and decoding during protein translation, gene regulation and expression.

Metagenomics = metagenomics is the genomic analysis of the community of microorganisms in a given environment by cultivation-independent techniques. This approach consists of extracting DNA directly from the environment and building a metagenomic library with this mixed genome.

Sequencing 4 = is done from a sample of the virus, removing the genetic material from other molecules. The Sars-CoV-2 genome goes through a conversion process to complementary DNA, then it is amplified, generating millions of copies, and this material is then fragmented into smaller pieces.

Bronchoalveolar lavage = is a procedure that doctors can use to collect samples from small airways and alveoli that cannot be seen through a bronchoscope.

RNA viruses = RNA viruses or RNA viruses are viruses that have RNA as their genetic material. RNA viruses are more likely to undergo genetic mutations compared to DNA viruses.

Phylogenetic analysis = is the study of the evolutionary revelation of a species or group of organisms or a particular characteristic of an organism.

Viral genome = is the genetic material carried by viruses. This genome has the basic information for the production of elementary proteins for the formation of the viral particle. The viral genome can be either RNA or DNA. Never both at the same time.

Nucleotides = or Nucleotides, in molecular biology and biochemistry, are the building blocks of nucleic acids, DNA and RNA. Nucleotides are formed by the esterification reaction between phosphoric acid and nucleosides, which enter the reaction like alcohol, reacting with the hydroxyl in position 3 or 5. Viral particles = is the molecular structure that constitutes a virus. It is basically composed of nucleic acid and proteins, but may additionally contain lipids and carbohydrates. The viral genetic material is composed of one or more nucleic acid molecules (DNA or RNA). Proteins (capsomeres) encoded by the viral genome are found surrounding the nucleic acid, the set of these proteins being called capsid.

Phospholipid envelope = The viral envelope is the outermost layer of different types of viruses. It protects genetic material during its life cycle, while it is transiting between host cells. Not all viruses have an envelope.

RNA genome = The complete set of hereditary factors contained in chromosomes.

Single strand = double stranded DNA (dsDNA); Group II: Single-stranded DNA (ssDNA) viruses; Group III: Double-stranded RNA (dsRNA) viruses; Group IV: Positive-sense single-stranded RNA viruses. Nucleic acids are typically found in single- or double-stranded form, but structures with three or more strands are also possible. Within the cell, DNA is normally double-stranded, however, some viruses contain single-stranded DNA, RNA is predominantly in the single-stranded form, which allows it to fold on itself to form tertiary structures in a similar way. to proteins. The difference between DNA and RNA lies in their constituent monomers.

Positive sense = negative-sense single-stranded RNA viruses are viruses that have genetic material made up of negative-sense single-stranded RNA. In the Baltimore Classification System, such viruses belong to group V, which comprises 8 viral families. The Baltimore Classification is a viral classification system developed by American biologist David Baltimore, based on the viral synthesis of messenger RNA (mRNA).[1] The system groups viruses into seven classes depending on their genome (DNA, RNA, double-stranded, single-stranded), their DNA replication, and whether the sense of a single-stranded RNA genome is positive or negative.

The Baltimore classification also closely corresponds with the way of replicating the genome, therefore, the Baltimore classification is useful for grouping viruses on transcription and replication criteria. Certain virus issues are associated with several Baltimore-specific groups, such as specific forms of mRNA translation and the host range of different types of viruses. Structural features, such as the shape of the viral capsid, which stores the viral genome, and the evolutionary history of viruses are not necessarily related to the Baltimore groups.

The Baltimore classification was created in 1971 by virologist David Baltimore. Since then, it has become common among virologists to use the Baltimore classification along with standard virus taxonomy, which is based on evolutionary history. In 2018 and 2019, the Baltimore classification was partially integrated into the virus taxonomy based on evidence that certain groups descended from common ancestors. Several kingdoms, kingdoms, and phyla now correspond to specific Baltimore groups.

Kilobases = is a unit of measurement used in molecular biology, which corresponds to 1000 nucleotide bases (DNA or RNA).

Nucleocapsid = is a viral structure formed by the association of the capsid with the nucleic acid of the virus.

Spikes = Peplomers or peplomers are prominent structures, generally made up of glycoproteins and lipids, which are found exposed on the surface of the viral envelope of viral particles of certain viruses.

Trimers = is a reaction product of three identical molecules. Trimers are typically found as cyclic trimers. Chemical compounds that very easily form trimers are aliphatic isocyanates and cyanic acid as a key intermediate in polymerization processes.

Membranes = a thin, typically flat structure that separates two environments. Since it is arranged between environments or phases and has a finite volume, it can be referred to as interphase instead of interface. Membranes selectively control mass transport between phases or environments.

Cytoplasm = fluid with a gelatinous appearance, rich in organic molecules and organelles, present inside cells and surrounding the nucleus; cytoplast.

receptor binding domain (RBD) = is a fundamental part of a virus located at its 'point' domain that allows it to enter the body's receptors to gain entry into cells and lead to infection.

ACE2 Receptor (Angiotensin Converting Enzyme 2) = Angiotensin 2 Converting Enzyme ACE 2 is an enzyme component of the renin angiotensin aldosterone system. It is responsible for the conversion of angiotensin II into angiotensin 1-7

Symptomatology = study and interpretation of the set of signs and symptoms observed when examining a patient.

Aero droplets = are microparticles of respiratory secretion (<5 μm in diameter) that are transported by air and, therefore, can reach a greater propagation distance. This transmission mechanism has demonstrated that Covid-19 spreads very efficiently between people.

asymptomatic = a patient carries a disease or infection but does not exhibit symptoms. The condition may be asymptomatic if it fails to show the noticeable symptoms with which the disease is normally associated. Asymptomatic infections are also called subclinical infections. The term clinically silent is also used to define asymptomatic diseases.

pharmacological = is the area of pharmacy that studies how chemical substances interact with biological systems. As a science it was born in the middle of the 19th century. If these substances have medicinal properties, they are referred to as "pharmaceutical substances".

ICU: intensive care unit - Frequency of access regulation by the Internal Regulation Center for resources of installed hospital capacity

Iatrogenic = refers to a disease state, adverse effects or complications caused by or resulting from medical treatment. However, the term derives from the Greek iatros and genia, so it can apply to both good and bad effects.

Causal attachment= This is the link between the agent's conduct and the result produced by it, for example, the healthcare professional must prove that due to the lack of personal protective equipment (equipment that is mandatory to be provided by the company) he contracted the coronavirus.