Coronavirus infections: health care planning based on Orem’s Nursing Theory

Abstract
Objective: to report the experience of professors and students of a graduate course on nursing care in coping with the new coronavirus (COVID-19) based on Self-Care Theory.
Method: the active methodologies used were a literature search and seminar presentations, with an understanding of Orem’s theoretical concepts: health; man; self-care; universal, developmental and health deviation requirements; self-care activities; self-care deficits; the required therapeutic demand; nursing systems. The pandemic was considered a health deviation that requires critical thinking and nursing care planning. Methodological frameworks to classify nursing diagnoses, interventions, and outcomes were used. For each health deviation, nursing systems were identified; self-care deficits, diagnoses; actions, interventions; and the form of assessment, outcomes.
Final considerations: theoretical-practical reflections of the academic context support nursing care planning.

Descriptors: Nursing Process; Patient Care Planning; Nursing Theory; Nursing Diagnosis; Coronavirus Infections.

Resumo
Objetivo: relatar a experiência de docente e discentes de uma disciplina de pós-graduação sobre assistência de enfermagem no combate ao novo coronavírus (COVID-19) fundamentada na Teoria do Autocuidado.
Método: as metodologias ativas utilizadas foram busca na literatura e apresentações em seminários, com compreensão dos conceitos teóricos de Orem: saúde; homem; autocuidado; os requisitos universais, desenvolvimentais e de desvios de saúde; as atividades de autocuidado; os déficits de autocuidado; a demanda terapêutica requeria e os sistemas de enfermagem. A pandemia foi considerada um desvio de saúde que demanda pensamento crítico e planejamento da assistência de enfermagem. Foram utilizados referenciais metodológicos das classificações de diagnósticos, intervenções e resultados de enfermagem. Para cada desvio de saúde, foram identificados sistemas de enfermagem; déficits de autocuidado, os diagnósticos; as ações, intervenções; e a forma de avaliação, os resultados.
Considerações finais: reflexões teórico-práticas do contexto acadêmico corroboram o planejamento da assistência de enfermagem.
Descriptores: Processo de Enfermagem; Planejamento de Atendimento ao Paciente; Teoria de Enfermagem; Diagnóstico de Enfermagem; Infecções por Coronavírus.
INTRODUCTION

This experience report describes the discussions and reflections in one-to-one and virtual classroom of an optional subject called “Nursing Theories: from the construction of knowledge to NANDA, NIC, and NOC taxonomies” and offered annually by the Nursing Graduate Programs levels of Academic and Professional Master’s and Doctorate from the Nursing Department of Escola de Medicina de Botucatu of Universidade Estadual Paulista “Julio de Mesquita Filho”. In 2020, four students were enrolled: a doctoral student, two master’s students and a special student, not yet linked to the Graduate Program.

The course aimed to: provide subsidies for discussions and reflections on nursing care based on theoretical concepts and assumptions, based on the construction proposed by nursing theorists; correlate the Dorothea Elizabeth Orem assumptions with NANDA-I Nursing Diagnosis Classifications(1), NIC Nursing Interventions(2) and NOC Nursing Outcomes(3), in order to contribute to nursing care planning and the interrelation of theory with practice in nurses’ work process in teaching, research, and care(4).

In the second week of class, due to social distancing and quarantine preventive measures to cope with COVID-19, there was a need to organize the virtual meetings. Then, Google Meet was used. The planning proposed in the teaching plan for that course was carried out remotely, maintaining the use of active methodology in the form of presentation of seminars. The themes were related to Dorothea Orem’s Theory, Madeleine Leininger’s Theory, Jean Watson’s Theory, and Betty Newman’s Theory.

The proposed methodology favored the reflections and discussions on the theoretical assumptions, and the points of convergence and attention of all discussions were, without a doubt, the pandemic, the quarantine and the world health setting. The first seminar presented was on Dorothea Orem’s Theory. The three theoretical constructs’ concepts postulated provided subsidies for exemplification of some phenomena related to the pandemic and the way in which the population reacted to preventive measures and to coping with the new coronavirus.

Thus, in line with the phenomena described about world health and the assumptions of the three sub-theories that comprise Orem’s Theory, a Nursing Process (NP) model was delimited to the population affected by the pandemic, with the proposition of nursing diagnoses, interventions, and outcomes, according to NANDA-I(l), NIC(2), and NOC(3) classifications.

Orem’s theoretical framework

NP is based on theoretical frameworks. Orem’s Self-Care Deficit Theory (SCDT) is widely used in Brazil and other countries to guide nursing practice and care in relation to people’s self-care requirements, according to the demand client or community therapy(5-6). Orem’s premise is that man has an innate ability to take care of himself. In this sense, the condition that will validate the existence of a nursing requirement would be the absence of continuously maintaining the quantity and quality of care, which are therapeutic for sustaining life and health in the recovery of the disease or injury and in facing its effects.

Orem’s General Theory consists of three interrelated factors: Self-Care Theory, which shows how and why people take care of themselves; Self-Care Deficit Theory, which shows why patients can be assisted by nursing; Nursing Systems Theory, which explains why nursing is performed(7).

Self-Care Theory proposes that people should be instructed in self-care or that the same be carried out by their Self-Care Agent, i.e., a caregiver who understands, accepts and fulfills dependent people’s self-care needs. Orem identified three categories of self-care: universal, development and health deviation(5).

Universal requirements, according to Orem(8), are associated with life processes, with human integrity maintenance, as well as human structure and functioning, such as breathing in air and drinking enough water and having food.

Development requirements refer to new events and situations that occur in the human environment for the purpose of development. To fulfill the requirements, man needs biological, psychological and social development, in addition to universal self-care requirements(9). Self-care requirements in health deviation “refer to care or decision making in relation to the health problem identified or diagnosed for the purpose of recovery, rehabilitation and control”(10).

Self-Care Deficit Theory reveals the role of nurses in moments of patient limitations in developing their self-care according to the identification of individuals’ self-care needs(11).

Nursing Systems Theory recommends that nursing practices establish and clarify the relationships that need to be created and maintained, encompassing the fully compensatory, partially compensatory system and the educational support system(11).

OBJECTIVE

To report the experience of professors and students of a graduate course on nursing care in coping with the new coronavirus (COVID-19) based on Self-Care Theory.

METHODS

Characterization of the problem amidst the pandemic

In December 2019, in Wuhan, China, cases of pneumonia were reported in thousands of people and which were supposedly related to the location where there is a wholesale market for seafood, dried meat, perishable items, live wild animals used for human consumption(12).

In January 2020, a new coronavirus named 2019-nCoV was officially identified as the reason for the outbreak of pneumonia cases. The signs, clinical symptoms and indicators for the identification of the disease were fever, radiological image with the presence of pneumonia, normal or below normal leukocytes, treatment without improvement for three days with antibiotics, a history of visiting the market and a positive and confirmed sample for 2019-nCoV(13).

The new coronavirus spread quickly around the world and proved to be highly contagious. On January 30, 2020, the World Health Organization (WHO) declared the outbreak as a Public Health Emergency of International Interest. Thus, a pandemic

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caused by COVID-19 was declared, due to the increase in the number of cases and deaths in all countries\textsuperscript{9}.

Considering this world setting, the Ministry of Health (MoH) of Brazil declared it a Public Health Emergency of National Concern (PHENC) on February 6, by Law 13,979/2020, published on 02/07/2020 in Diário Oficial da União (Federal Official Gazette). Therefore, measures were taken to deal with this public health emergency resulting from coronavirus (COVID-19)\textsuperscript{10}.

The Brazilian Sanitary Surveillance Agency (ANVISA - Agência Nacional de Vigilância Epidemiológica do Brasil) has carried out periodic weekly reviews of Technical Note\textsuperscript{11} on the guidelines for health services regarding prevention and control measures to be adopted in suspected or confirmed cases by the new coronavirus.

The State Health Departments of Brazil, in line with the MoH, in view of local realities, plan and disseminate the measures adopted to contain the pandemic. Like Brazil, governments in other countries incorporate actions to contain the pandemic and minimize the impact of the disease. However, the moment is characterized by uncertainties\textsuperscript{9}.

Concerning treatment, scientific research has been carried out by scholars from universities, public and private national and international institutes, in search of drug treatment or vaccine against the new coronavirus. Therapies and medications are implemented based on symptoms. The most frequent complication is Acute Respiratory Discomfort Syndrome, followed by cardiac injury and secondary infections. Patients with intractable hypoxemia are progressing to invasive mechanical ventilation\textsuperscript{12}.

Guidelines for health service professionals in Brazil can be accessed through the manuals produced by ANVISA\textsuperscript{13}. However, the best scientific evidence at the moment, to face the pandemic, is to control the sources of infection. To control dissemination, the population has been instructed to maintain environments with good ventilation, wear a mask and adopt personal and hand hygiene measures.

Concerning the current global situation and that of Brazil, Brazilian nurses need to organize nursing care for the affected populations. Nursing is one of the professions that is directly facing health problems related to the illness of people infected with the new coronavirus. Nurses play an essential role in the health team and work in the fields of prevention, monitoring and direct assistance in pre and hospital and emergency services in intensive care.

Thus, the present report proposes a NP construction based on Orem’s Theory, based on the discussions and reflections carried out during the course’s classes, which provided scenery and learning according to the programmatic content.

The teaching strategies employed were carried out in a Virtual Learning Environment, with an active methodology, with students as protagonists in activities of literature review, preparation, and presentation of seminars.

The reflections and theoretical deepening were mediated by professors in relation to the practical application of the Self-Care Deficit theory and concepts for patients with health problems due to the pandemic caused by the coronavirus, based on literature of NANDA-I\textsuperscript{14}, NIC\textsuperscript{25} and NOC\textsuperscript{30}. For this purpose, the main nursing interventions were sought, covering the largest number of activities and which, in a certain way, could lead to the expected outcome, in addition to being measured and assessed. The reflections originated by the practical application of Orem’s theory encouraged the realization of this report to demonstrate the results obtained.

Thus, the following question emerged: in the face of the pandemic setting, how would NP be characterized from Orem’s Self-Care Theoretical Framework\textsuperscript{5-6} and the NANDA-I\textsuperscript{11}, NIC\textsuperscript{25} and NOC Nursing Classifications\textsuperscript{30}?

RESULTS

Experience outline

The discussions held during virtual classes contributed to formulating and characterizing the mentioned problem. The contributions of Orem’s Theory to NP application, in this pandemic moment, support nurses’ autonomy and direct the required actions, including those recommended by professional and governmental bodies.

Universal requirements, such as sufficient air intake, balance activities between activity and rest, the balance between loneliness and social interaction and the prevention of dangers to human life, are clearly affected in the current COVID-19 pandemic setting. Development requirements are affected, such as those responsible for promoting life and maturation processes, such as the necessary adaptations for the moment; attitudes of social detachment established to control the spread of the disease; challenges for school activities at all levels of education; difficulties encountered in conducting human activities and, mainly, in relation to internet access.

It is noticed that the way of life development of the population in general is affected and adaptations are being made; however, social conduct and hygiene practices and recommendations are underway that seem momentary and fleeting, but should be transformed into a new way of life in the near future and different from the one that existed before the pandemic.

Regarding the health deviations identified in relation to prevention and treatment to control COVID-19 to spread, the universal requirements for social coexistence that would be hampered by the distance, social isolation and the quarantine established should be considered.

Charts 1, 2 and 3 exemplify how care planning was structured during the course’s activities and relate them to Orem’s three Nursing Systems and the health deviations arising from COVID-19.

**Fully Compensatory System: due to suppressed oxygenation needs, oxygen therapy and invasive ventilation**

Chart 1 shows the NP based on Totally Compensatory System. Patients infected with COVID-19 have a demand for the affected health deviation, require invasive and non-invasive oxygenation and are totally dependent on nursing and artificial equipment to provide gas exchange\textsuperscript{31}.

**Partially Compensatory System: patient with mild dyspnea with and without the need for non-invasive oxygen therapy**

Chart 2 presents an assistance plan based on Partially Compensatory System. Some infected patients may experience mild respiratory symptoms and need support from non-invasive oxygen therapy, such as inhalations, nasal catheter, or face mask\textsuperscript{30}.
### Chart 1 - Nursing Diagnosis, Nursing Intervention, and Nursing Outcomes related to the health deviation of a patient infected by COVID-19, Botucatu, São Paulo, Brazil, 2020

| ND/Self-Care Deficit | NI | NO |
|----------------------|----|----|
| **Ineffective airway clearance** | Medication administration<br>Airway suctioning and management<br>Mechanical ventilation management: invasive | Respiratory status: airway patency<br>Aspiration prevention<br>Mechanical ventilation response | |
| **Risk for aspiration** | Artificial airway management<br>Vomiting management<br>Chest physiotherapy<br>Neurologic/respiratory/positioning | Nausea & vomiting control<br>Risk detection and control<br>Aspiration prevention<br>Mechanical ventilation response: adult | |
| **Dysfunctional ventilatory weaning response** | Artificial airway management<br>Airway suctioning/pneumonia prevention<br>Mechanical ventilation management | Gas exchange<br>Mechanical ventilation weaning response<br>Cardiopulmonary status | |
| **Impaired spontaneous ventilation**<br>**Impaired gas exchange** | Acid-base management/monitoring<br>Mechanical ventilation management: invasive | Gas exchange<br>Mechanical ventilation and weaning<br>Imobility consequences<br>Imobility consequences: physical<br>Fatigue, discomfort and pain/mobility level<br>Tissue perfusion: pulmonary<br>Joint movement | |
| **Impaired bed mobility**<br>**Impaired physical mobility** | Bathing/skin surveillance<br>Body mechanics promotion<br>Self-care assistance<br>Traction/immobilization care<br>Urinary elimination/bowel management<br>Bed rest care<br>Massage | Health promoting and complianceness<br>Knowledge: treatment<br>Knowledge: treatment regimen<br>Symptom management<br>Participation in health care decisions | |
| **Ineffective health maintenance**<br>**Ineffective protection** | Self-care assistance<br>Medication and pressure management<br>Ventilation assistance<br>Peripheral sensation management<br>Learning facilitation<br>Emergency care<br>Risk identification<br>Copiging enhancement<br>Respiratory monitoring<br>Reality orientation | Risk control: hyperthermia<br>Thermoregulation | |
| **Ineffective thermoregulation** | Bathing<br>Environmental and water management<br>Hyperthermia treatment<br>Vital signs monitoring | Risk control: hyperthermia<br>Thermoregulation | |
| **Ineffective peripheral tissue perfusion** | Acid-base management<br>Hypervolemia management<br>Hypovolemia management<br>Nutrition management<br>Peripheral sensitivity management<br>Shock management | Circulatory status<br>Tissue integrity: skin & mucous membranes<br>Tissue perfusion: cellular<br>Tissue perfusion: peripheral | |
| **Risk for infection** | Pressure ulcer prevention<br>Airway management<br>Tube care<br>Tube care: urinary | Imobility consequences: physiological<br>Risk detection and control: infectious process | |
| **Risk for impaired skin integrity**<br>**Risk for pressure ulcer**<br>**Impaired oral mucous membrane integrity** | Circulatory precautions/embolism<br>Hyper/hypoglycemia management<br>Lower extremity monitoring<br>Skin surveillance<br>Immobilization and positioning<br>Vital signs monitoring<br>Fall prevention<br>Nutrition management/planning<br>Bowel constipation/incontinence<br>Infection control<br>Bed rest care<br>Surveillance<br>Immobilization and positioning | Cognition, anxiety and agitation<br>Management/risk detection<br>Infectious process, hyper and hypothermia<br>Respiratory status and vital signs<br>Gastrointestinal, renal, circulatory and cardiopulmonary function<br>Bowel elimination<br>Nutritional status: food and fluid intake<br>Hydration/mobility<br>Acid-base balance | |
| | Water management<br>Oral health maintenance<br>Airway suctioning | Oral hygiene/eye care<br>Risk control: infectious process<br>Hydration | |

To be continued
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Chart 2 – Nursing Diagnosis, Nursing Intervention, and Nursing Outcomes related to the health deviation of a patient infected with mild respiratory symptoms and a positive test for a new coronavirus, Botucatu, São Paulo, Brazil, 2020

| ND/Self-Care Deficit          | NI                                                                 | NO                                                                 |
|-------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------|
| Risk for falls                | Area restriction                                                  | Fall prevention                                                  |
|                               | Body mechanics promotion                                          | Risk control                                                    |
|                               | Dementia and pain management                                     | Agitation and acute confusion level                              |
| Ineffective health maintenance| Self-care assistance                                             | Health promoting behavior                                       |
| Decisional conflict           | Self-responsibility facilitation                                  | Knowledge: health promotion and resources                        |
|                               | Risk identification                                              | Risk detection                                                   |
|                               | Culture brokerage                                                | Participation in health care decisions                           |
|                               | Self-awareness/coping enhancement                                |                                                                   |
|                               | Behavior modification                                            |                                                                   |
|                               | Health system guidance                                          |                                                                   |
| Impaired gas exchange         | Acid-base/vital signs monitoring                                 | Respiratory status: gas exchange and ventilation                 |
|                               | Mechanical ventilation management: noninvasive                    |                                                                   |
|                               | Anxiety reduction                                                |                                                                   |
| Ineffective breathing pattern | Mechanical ventilation management: noninvasive and weaning        | Respiratory status: airway patency, gas exchange and ventilation |
|                               | Vital signs monitoring                                           | Anxiety level                                                    |
|                               | Oxygen therapy                                                   |                                                                   |
|                               | Anxiety reduction                                                |                                                                   |
| Impaired spontaneous ventilation| Emotional support                                                 | Respiratory status: gas exchange                                 |
|                               | Airway/acid-base management                                      | Ventilation                                                      |
|                               | Mechanical ventilation management: noninvasive/oxygen therapy     |                                                                   |
|                               | Vital signs monitoring                                           |                                                                   |
| Readiness for enhanced self-care| Self-modification and self-care assistance                     | Self-care: hygiene compliance behavior                            |
|                               | Mutual goal setting                                              |                                                                   |
|                               | Self-responsibility facilitation                                 |                                                                   |
| Relocation stress syndrome    | Emotional support/counseling                                      | Personal autonomy                                                |
|                               | Anger control assistance                                         | Coping                                                           |
|                               | Active listening                                                 | Loneliness severity                                              |
|                               | Mutual goal setting                                              | Anxiety level                                                    |
|                               | Self-responsibility facilitation                                 | Fear level                                                       |
| Anxiety                       | Antecipatory guidance/counseling                                 | Anxiety self-control                                             |
|                               | Relocation stress reduction                                      | Coping                                                           |
|                               | Increased safety/emotional support                               |                                                                   |
| Fear                          | Counseling                                                       | Fear self-control                                                |
|                               | Emotional and decision-making support                            | Fatigue level                                                    |
|                               | Support system enhancement                                       | Fear level                                                       |
|                               | Anxiety reduction/presence/calming technique                     |                                                                   |
| Ineffective thermoregulation  | Bathing/hygiene                                                  | Risk control: hyperthermia                                       |
|                               | Environmental management/water management                        | Thermoregulation                                                  |
|                               | Hyperthermia treatment/vital signs monitoring                    |                                                                   |
| Social isolation              | Counseling/emotional support                                     | Social support                                                   |
|                               | Self-awareness enhancement                                       |                                                                   |

Support-Education System: intended for groups at risk in need of maintaining isolation

Chart 3 presents a care plan to prevent COVID-19 to spread, based on Support-Education System and applies to groups at risk, those who have comorbidities, elderly people and individuals with chronic lung problems.

The general population, who did not have contact with people infected with the new coronavirus, or who do not have symptoms of the disease, maintains universal requirements for preserved oxygenation and elimination. However, it is noteworthy that the same population is vulnerable to having the same requirements shaken if there is no respect for the recommendations of health authorities, such as social distancing and strict hygiene measures. Self-care should be encouraged by nurses as knowledge about COVID-19 advances in order to promote alignment with health education actions. The interventions and activities described above may change if new scientific discoveries about COVID-19 arise.
| ND/Self-Care Deficit                      | NI/Activities                                                                 | NO                                                                 |
|------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------|
| Feeding self-care deficit                | Nutrition management                                                         | Self-care: food and activities of daily living                    |
|                                          | Nutrition monitoring                                                         | Nutritional status                                               |
|                                          | • Discuss supportive habits for purchasing food and isolation restrictions;   |                                                                  |
|                                          | • Determine food consumption habits;                                         |                                                                  |
|                                          | • Facilitate the identification of eating behaviors to be changed.          |                                                                  |
| Decreased diversional                    | Activity therapy                                                             | Social involvement                                               |
| activity engagement                      | Recreation therapy                                                           | Motivation                                                       |
|                                          | • Promote occupational therapy or art therapy activities;                   | Leisure and play participation                                   |
|                                          | • Set goals for performing exercises and recreational activities;            | Personal well-being                                              |
|                                          | • Encourage activities with music therapy.                                   | Health promoting behavior                                         |
| Risk for loneliness                      | Coping enhancement                                                           | Social support                                                   |
|                                          | Emotional support                                                            | Family well-being                                                |
|                                          | Counseling                                                                   | Social interaction skills                                         |
|                                          | Family integrity promotion                                                   |                                                                  |
|                                          | Support system enhancement                                                   |                                                                  |
|                                          | • Develop social skills of distance interaction using the internet;          |                                                                  |
|                                          | • Promote stress reduction through change.                                   |                                                                  |
| Impaired social interaction              | Self-awareness enhancement                                                   | Family well-being                                                |
|                                          | Support group                                                                | Social involvement                                               |
|                                          | Communication enhancement                                                   | Social interaction skills                                         |
|                                          | • Encourage resilience promotion;                                            | Leisure and play participation                                   |
|                                          | • Promote remembrance therapy and improve family support, animal therapy,   |                                                                  |
|                                          | and recreational therapy.                                                    |                                                                  |
| Risk for contamination                   | Infection control                                                            | Safe home                                                        |
|                                          | Environmental management: community and safety                                | Self-care: hygiene                                               |
|                                          | Health policy monitoring                                                     | Personal safety behavior                                         |
|                                          | • Use masks.                                                                 | Community risk control: infectious diseases                      |
| Anxiety                                  | Anxiety reduction                                                            | Anxiety self-control                                            |
|                                          | Coping enhancement                                                           | Coping                                                           |
|                                          | Relaxation therapy                                                           | Acceptance: health status                                       |
|                                          | • Use a calm and reassuring approach;                                        | Social interaction skills                                        |
|                                          | • Listen carefully;                                                          |                                                                  |
|                                          | • Promote anxiety reduction measures.                                        |                                                                  |
| Risk for spiritual distress              | Community disaster preparedness                                               | Psychosocial adjustment: life change                             |
|                                          | Anticipatory guidance                                                        | Personal well-being                                              |
|                                          | Conflict mediation                                                           | Management and risk detection                                   |
|                                          | Coping enhancement                                                           | Coping                                                           |
|                                          | Emotional support                                                            | Hope                                                             |
|                                          | Environmental management: comfort                                             | Spiritual health                                                 |
|                                          | Relocation stress reduction                                                   |                                                                  |
|                                          | Resiliency promotion                                                         |                                                                  |
| Risk for infection                       | Infection protection                                                         | Self-care: hygiene                                              |
|                                          | Infection control                                                            | Immunization behavior                                            |
|                                          | • Protect against infection and guidance to avoid physical contact and visits;| Community risk control: infectious diseases                     |
|                                          | • When leaving and returning, take the necessary hygiene precautions:        | Risk detection                                                   |
|                                          |   • wear a mask; do not touch the hand on the face, mouth, eyes and nose;   |                                                                  |
|                                          |   • make use of respiratory etiquette; wash the hands with soap and water   |                                                                  |
|                                          |   frequently;                                                               |                                                                  |
|                                          |   • Use 70% gel alcohol, when hand washing is impossible.                    |                                                                  |
|                                          | Surveillance                                                                |                                                                  |
|                                          | Risk identification                                                         |                                                                  |
| Deficient knowledge                      | Counseling                                                                   | Knowledge: health behavior                                       |
|                                          | Health screening                                                             | Knowledge: disease process/health promotion                      |
|                                          | Health education                                                             | Information processing                                           |
|                                          | Teaching: disease process                                                    | Client satisfaction: teaching                                    |
|                                          | • Guide clients on necessary inputs, hygiene techniques, mechanisms for     |                                                                  |
|                                          |   maintaining home isolation and providing support regarding changes in     |                                                                  |
|                                          |   their standard of living with better acceptance and promotion of well-being;|                                                                  |
|                                          |   • Bring clients to know the aspects of the spread of the disease and take |                                                                  |
|                                          |   actions to reduce the potential risk for infection.                       |                                                                  |

Note: ND: Nursing Diagnosis; NI: Nursing Intervention; NO: Nursing Outcomes.
DISCUSSION

Lessons learned

The teaching strategies provided the development of different skills, research, elaboration, preparation and oral exposure in a virtual environment, reflection and theoretical deepening and exercise using nurses’ clinical reasoning, in order to correlate which nursing outcomes and indicators would be appropriate to obtain an improved status compared to the current one, within this setting. Reflection activities and subsequent discussion in the light of Nursing Theories provide meaning and strengthen nursing as a science.

The course contributed as an exercise in appropriating the theoretical concepts that underlie nursing practice in current pandemic. Each nursing system, proposed by Orem, was related to the type of health deviation presented and provided guidance to nurses and visibility of nursing care, through appointment of ND, NI, and NO. Thus, it was sought, in a didactic way, to cover care in order to compile the outcomes and indicators that demonstrate its relevance to the named phenomena concomitant with the proposal for nursing interventions.

Nursing systems demonstrate their importance because they also cooperate with nursing planning, not only in relation to care dependency, but also for patients’ criticality. In this context, the systems demonstrate patients’ dependence on nursing in the face of care needs and the worsening of the disease.

In light of the assumptions and conceptual models of Orem’s SCDT, the importance of the role of a care agent as a person who contributes to maintaining the needs of those who are at risk and oriented to maintain the social distancing and/or home isolation, strongly recommended to reduce COVID-19 to spread. In the current management of the spread of a disease, the importance of taking care of oneself and the other is highlighted, corroborating collective care.

Study limitations

The lack of nursing studies on COVID-19 and the systematization of care related to the current pandemic were the limitations of this report.

Contributions to nursing

This report points to the need to develop studies on the systematic nursing care planning for patients with COVID-19 at national and international levels. It corroborates the health care of the population in general so that taking care of oneself is a form of collective care. Orem’s Theory provided a basis for understanding the current phenomena of nursing care.

CONCLUSION

In conclusion, the therapeutic demand required by the health deviations pointed out in this report was identified by ND, called self-care deficits according to Orem. The proposed NI are the actions that reinforce global recommendations to cope with the pandemic. NO portray the benefits to health, management and monitoring of actions implemented to infected individuals, contacts and the population.

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