

Implementing Holistic Care in Isolated Patients During COVID-19 Pandemic

A Case Study Using Nursing Outcomes (NOC) and Interventions (NIC) Classifications

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The most effective strategy against SARS-Cov-2 virus spread is therapeutic isolation. Consequences of this measure are the presence of anxiety and depression. Therefore, it is the nurse's responsibility to identify strategies to implement humanized and holistic care in order to avoid physical and mental consequences of isolation.

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During the acute phase of the COVID-19 pandemic (period since the activation of the state of alarm in Spain), the number of infected people in this country exceeded 700 000, with an epidemic growth rate of 6.79% and a doubling time of cases of 10.2 days. Consequently, the percentage of deaths reached 9.1% of the total infected, with a figure above 25 000 cases and the percentage of bed occupancy for COVID-19 patients (including both intensive care units and other hospital wards) greater than 80% of the total occupancy.¹

The most important and widely used strategy against COVID-19 spread is isolation, both at home or during hospital admission.^{2,3} Isolation during hospital admission has been shown to have consequences in other areas of the patient's health spheres, namely, the presence of anxiety and depression.⁴

To reduce the consequences generated by isolation in these patients, it is essential to understand not only their physical needs but also their mental needs; the understanding of the other as a person who needs to be heard is, hence, considered to be of paramount importance. On the basis of this, the theorist Jean Watson proposed the Human Care Theory.^{5,6} Her theory is based on the care of the person and his or her social context by identifying a range of Carative Factors (CFs). Among them, the following can be highlighted: the CF of "Creation of an environment of support, protection, and/or mental, physical, social, and spiritual well-being" and the CF of "Assistance in the gratification of human needs."⁷

Recently, Human Care Theory has been taken into account when implementing nursing processes. In practice, the nursing process is a series of organized steps designed for nurses to provide excellent care. It consists of 5 phases including assessing, diagnosing, planning, implementing, and evaluating.⁸ A nursing process is considered to be optimal when it is based on a holistic care approach,⁹ uses scientific evidence,¹⁰ and considers not only the physical needs but also the mental and spiritual needs of the person who is being cared for.¹¹

To achieve a satisfactory nursing process, there is a need for the elaboration of care plans based on approaches that use taxonomy such as the Nursing Outcomes Classification (NOC)¹² or Nursing

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Interventions Classification (NIC).¹³ According to Herdman and Kamtisure, “the taxonomy supports evidence-based care, allows for quantitative staffing and evaluation measures and supports evidence-based clinical decisions for electronic health records.”^{14(p18)} Therefore, nursing diagnoses, outcomes, and interventions selected during this linkage process provide knowledge to support the community challenged by the COVID-19 pandemic, bring the opportunity to quantify the impact of nursing care, and enhance nursing practice by promoting the use of 3 standardized terminologies.^{8,15}

In the specific case described later, the adult emergency department (ED) of Virgen del Rocío Hospital implemented a double patient circuit in late February 2020. Those patients presenting respiratory semiology and/or fever greater than 37°C were cared for in a specific area that was only intended for the early diagnosis of COVID-19. In addition, measures to prevent transmission between patients and health care personnel included therapeutic isolation of the patient, suspension of visits by family members, as well as the use of the recommended personal protection equipment (PPE) by personnel.¹⁰ The objective of this article is to provide a description of the nursing process developed for a person in preventive isolation due to suspected SARS-Cov-2 infection in the ED as a creative practice to implement holistic and human care.

CASE INTRODUCTION

A 61-year-old man was treated in the specific area of care for patients with respiratory semiology in the ED. He presented a picture of moderate respiratory failure compatible with infection by SARS-Cov-2. Given the clinical presentation, a nursing-focused assessment was performed using Gordon’s functional health patterns¹⁶: *health perception-health management, nutritional-metabolic, elimination, activity-exercise, and role-relationship*.¹⁷ The nursing process was developed using Watson’s Theory of Human Care, which is built upon 10 Carative Factors (CFs). In our study, some of these CFs were chosen and implemented to address specific situations.

ASSESSMENT

The following vital observations were collected in the *health perception-health management* pattern: blood

pressure, 147/85 mm Hg; heart rate, 90 beats per minute; respiratory rate, 15 breaths per minute; temperature, 37.3°C; and oxygen saturation, 90%. A medical history of hypertension and hyperlipidemia was noted. The suspected medical diagnosis was pneumonia secondary to SARS-Cov-2 infection as seen in his chest radiograph, although he reported that the dyspnea was mild and there were no accessory musculature movements. In the presence of pulmonary consolidation, empiric antibiotics were prescribed together with intravenous fluid therapy, oxygen therapy via nonrebreather reservoir mask (with a surgical mask placed on top to prevent the spread of aerosols that can transmit infection), and inhalers. Blood samples and nasopharyngeal smears were taken for the determination of the PCR (polymerase chain reaction) test. This test allows the detection a fragment of the genetic material of the virus.¹⁰

In addition, the patient confirmed that he was taking the medication prescribed by his doctor and that he was following a diet low in salt and fat. He also mentioned that, on this occasion, he had gone to the hospital because he had a mild sensation of shortness of breath and, given the COVID-19 pandemic situation, he followed the recommendation to seek medical advice. Regarding the data collected during the assessment, in the *nutritional-metabolic* functional pattern, the patient’s skin was intact, with an EMINA (Mental state, Mobility-Incontinence-Nutrition-Activity¹⁸) scale score of 2 points (low risk). Also noticed was a profound lack of appetite, which the patient himself justified as a consequence of his own concern about the possibility of having contracted COVID-19 (stress-related).

In relation to the *activity-exercise* pattern, the patient could make postural changes and move by himself in bed since the supply of oxygen via nonrebreather reservoir mask allowed him to reach a saturation of 95%. In addition, he was able to answer all the questions of the nursing assessment. Regarding the *elimination* pattern, there were no difficulties or anomalies in it. Likewise, in the *role-relationship* pattern, it is worth mentioning that while awaiting the PCR results, he was uneasy and anxious regarding the situation of imposed therapeutic isolation, with a tendency to suffer a tachycardic response. In addition, he obtained a score of 4 points on the Goldberg scale, which indicates a high level of anxiety. During this assessment, he also expressed his wishes to establish conversation with other people admitted to the unit (due to the impossibility of seeing his relatives) because he felt lonely.

The *cognitive-perceptual, sleep-rest, self-perception, sexuality-reproductive, coping-stress tolerance, and value-belief functional* patterns were not assessed since the patient's admission situation to the ED implied selecting the most relevant patterns for the patient's urgent care through a focused assessment.¹⁷

DIAGNOSTICS AND PLANNING OF CARE

Once the nursing assessment stage was completed, the data were analyzed and the relevant diagnostic inferences and hypotheses were made. Thus, as displayed in the Table, it was possible to identify the outcome criteria and the consequent nursing interventions. The Table shows, in detail, the nursing process undertaken, which consisted of diagnoses, outcomes, and interventions.^{11,12} The diagnosis *Impairment gas exchange* (00030) was identified, linked to possible respiratory infection and to the presence of dyspnea and hypoxemia. In addition, the diagnosis *Anxiety* (00146), related to unmet needs (social interaction) and the presence of nervousness and restlessness. The third diagnosis identified was *Imbalanced nutrition: less than body requirements* (00002), due to insufficient daily intake and the presence of insufficient interest in food.¹⁴

Regarding the *Impairment gas exchange* (00030) and *Imbalanced nutrition* (insufficient body requirements) (00002) diagnoses, the most suitable nursing intervention identified was NIC *Milieu therapy* (4390),¹³ since the origin of both were the isolation measures (between patient-family and between the patients themselves) applied to avoid possible infections.

In this context, NIC *Milieu therapy* (4390) was identified because, according to its standardized definition, it proposes the use of people, resources, and events in the patient's immediate environment to promote optimal psychosocial functioning.¹³ It was also thought that the implementation of this nursing intervention could improve the patient's anxiety and lack of appetite, taking into account that his baseline clinical situation allowed him to speak and move autonomously, even connected to oxygen therapy.

IMPLEMENTATION

The nurse responsible for the patient facilitated interaction with other patients admitted to the same

ED unit provided that they had a clinical situation of hemodynamic stability and voluntarily agreed to participate in the NIC *Milieu therapy* (4390) nurse intervention. In total, 5 patients met the required criteria but only 3 decided to take part. A maximum number of 3 patients would have been considered because of constraints in the space available. Consequently, 3 patients were placed (including the patient described), sitting on chairs, in a circle in the ward's aisle while maintaining a distance of 1 m between them. All of them were wearing a surgical mask, protective screen, and gloves, maintaining at all times adequate infection prevention measures. In addition, the 3 patients were connected to oxygen cylinders and portable pulse oximetry monitors, for the implementation of the NIC *Oxygen therapy* (3320) and *Vital signs monitoring* (6680). The aim was to facilitate open communication through the creation of an improvised mutual support group, enabling humanizing care by trying to reduce the rigidity of isolation protocols and safety premises. Finally, the nurse responsible for the 3 patients asked them to introduce themselves and explain (if they so desired and without any coercion) the reason for their admission. This led to a conversation among the participants about their families, places of residence, occupations, etc. It also allowed them to share feelings, emotions, and fears about the COVID-19 disease, all of them agreeing that the impossibility of receiving visits due to the therapeutic isolation had plunged them into feelings of sadness and loneliness. The nurse in charge moderated the conversation without actively participating, only offering her presence, active listening, and emotional support.

Within the framework of Jean Watson's Theory of Human Care, the NIC *Milieu therapy* (4390) nurse intervention allowed the responsible nurse to work on CF 4 (establishing a helping-trusting relationship), CF 8 (provision of a supportive, protective, and/or corrective mental, physical, sociocultural, and spiritual environment), and CF 9 (assistance with the gratification of human needs).^{7,11} The nursing intervention lasted 60 minutes, after which all the participants returned to their respective emergency isolated boxes. The patients expressed their gratitude and requested that the activity would be repeated the next day (if their admission continued).

Regarding the clinical case that concerns us, the NIC *Milieu therapy* (4390) indirectly improved the patient's anxiety situation by reducing his concerns as well as the lack of appetite.¹² It fostered peer

TABLE. NANDA, NOC, and NIC Linkages

NANDA	Objectives	NOC	NIC	Activities
00030 Impaired gas exchange	Avoid complications associated with respiratory failure	0403 Respiratory status: ventilation Indicators: 40309 Increase of accessory muscle use (On arrival: 3 moderate; after 6 h: 4 mild) 40310 Adventitious breath sounds (On arrival: 3 moderate; after 6 h: 4 mild)	3320 Oxygen therapy 2300 Medication administration 6680 Vital signs monitoring 7820 Specimen management	Close monitoring of observations Use of a nonrebreather oxygen mask with a protective surgical mask Sampling of nasopharyngeal exudate using PCR testing Administration of prescribed medical treatment: intravenously and inhalation routes
00146 Anxiety	Reduce patient anxiety and restlessness levels as a consequence of therapeutic isolation and lack of communication	1211 Anxiety level Indicators: 121105 Uneasiness (On arrival: 2 substantial; after 6 h: 4 mild) 121120 Increased pulse rate (On arrival: 3 moderate; after 6 h: 5 none)	4390 Milieu therapy	Facilitate open communication Support informal group activities Encourage the use of personal property Promote appropriate interactions between patients Adequate patient interactions individually in an open manner within the policies and protocols framework
00002 Imbalanced nutrition: less than body requirements	Increase the patient's intake to the nutritional requirements	1203 Loneliness severity Indicators: 120310 Sense that time seems endless (on arrival: 2 substantial; after 6 h: 5 none) 120328 Unhealthy eating pattern (On arrival: 1 severe; after 6 h: 5 none) 1008 Nutritional status: fluid and fluid intake 100801 Oral food intake (On arrival: 1 not adequate; after 6 h: 4 substantially adequate)		

Abbreviations: NANDA, North American Nursing Diagnosis Association; NIC, Nursing Interventions Classification; NOC, Nursing Outcomes Classification; PCR, polymerase chain reaction.

interaction, as well as the exchange of emotions, feelings, and experiences. The patient was able to share photographs of his relatives with other patients, through his mobile phone (under hygienic conditions—duly protected) and stories about them.

After 6 hours, the SARS-Cov-2 PCR result came back positive and the need for admission to a medical unit to continue his care was necessary. An evaluation of the outcomes achieved was carried out as shown in the Table. These results indicated that both the heart rate and the level of anxiety decreased, followed by an increase in appetite (a full meal was eaten).

DISCUSSION

Given the patient's health situation, a holistic nursing assessment was performed, using Jean Watson's Theory of Human Care as a theoretical model. According to Raile,¹¹ the choice of the theoretical model that should guide clinical practice depends on the professional and his or her vision of the elements that make up the paradigm in nursing. The health care center where this case was studied does not impose any theoretical model on its professionals: the systematized assessment tool used by the Virgen del Rocío hospital, called the Gordon Functional Patterns, is not based on any a priori theoretical model. In this case, in the context of the Theory of Human Care, CF 8 (promoting a supportive environment) and CF 9 (assisting with gratification of human needs) are particularly important.⁶ These aim at caring for the emotional, belonging, and environmental aspects implicit in the person, as well as their communication, relationship, safety, and mental balance needs.⁷

In our study, the intervention *Milieu therapy* (4390) enabled patients to cope with the situation of uncertainty.¹² It fostered peer interaction, as well as the exchange of emotions, feelings, and experiences. A Mutual Support Group (MSG) was created, in which the participants became their own therapeutic instruments.¹³ These groups are voluntary meeting spaces where experiences and coping strategies are shared around the same health situation. Although the responsible professional, the nurse continues to be the guide and the mediator in a nonparticipant manner of the group's contributions and behaviors and remains to play a secondary role among the group.¹³

On the contrary, the possibility of finding new ways of maintaining humanized care, in a situation where the policies and protocol for infection prevention are

rigid, is a direct competence of the nurse. Thus, critical reasoning is a necessary attribute for caring, leading to a process that could be called "creative nursing" while adhering to the legal and health safety framework. This competence assumes adaptation to existing circumstances and means and characterizes the profession as "the art of caring."¹⁵

In addition, consideration of the person as a biopsychosocial being and the need to promote the social context (patients with similar care needs) within patient care, should be taken into account. This means that despite the requirement of all individuals to wear PPE and maintain social distancing throughout this pandemic, it is still possible for people to be cared for and for them to care for each other.¹⁰

This clinical case invites reflection on the need to find other more creative and adaptive ways of implementing high-quality and holistic nursing care. Similarly, patient care should be focused on the relevance of intervening and caring for the emotional responses to situations of illness or uncertainty, since these may be the cause of other physiological problems that may arise, such as *overweight* (00233), *impaired physical mobility* (00085), or *risk of impaired skin integrity* (00074), among others.¹³

Summarizing, from the disciplinary and ethical perspective of the profession, nurses should try to humanize care as much as possible, assessing the emotional needs of the person and planning care according to these needs. The emotional impact of the COVID-19 pandemic on people must be present in the minds of all nursing professionals.

CONCLUSION

While guaranteeing protective measures and therapeutic isolation during the COVID-19 pandemic, nursing professionals should aim to humanize care as much as possible by using a holistic approach that considers all spheres of the person. Therefore, it is pivotal to prioritize patient-centered care and the implementation of new actions that would make it possible.

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