



Teleconsultation as an advanced practice nursing during the COVID-19 pandemic based on Roy and Chick-Meleis

Teleconsulta como prática avançada de enfermagem na pandemia de COVID-19 à luz de Roy e Chick-Meleis

La teleconsulta como práctica avanzada de enfermería en la pandemia del COVID-19 a la luz de Roy y Chick-Meleis

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-  Maria Auxiliadora Rodrigues¹
-  Ana Beatriz Serra Hercules¹
-  Juliana Rizzo Gnatta²
-  Juliana Chaves Coelho²
-  Aline Nair Biaggio Mota²
-  Angela Maria Geraldo Pierin²
-  Rosimere Ferreira Santana¹

¹ Universidade Federal Fluminense, Escola de Enfermagem Aurora de Afonso Costa, Niterói, RJ, Brazil.

² Universidade de São Paulo, Escola de Enfermagem, São Paulo, SP, Brazil.

ABSTRACT

Teleconsultation can be classified as an advanced practice nursing that requires nurses' clinical reasoning based on a consistent theoretical framework to use in the nursing process. Our study conducted a theoretical-reflective analysis, based on Callista Roy's Adaptation Model of Nursing and Chick-Meleis' Transition Theory, about the contribution of teleconsultation as an advanced practice nursing in the care of older adults with chronic diseases during the COVID-19 pandemic. We reflect on this in two moments: "nursing theories and dealing with COVID-19" and "ways of adapting to new care models and advanced practice nursing," based on communication and information technologies. The worsening of the pandemic in Brazil changed life cycles, health/disease and organizational processes, demanding the development of an adaptive-transactional state by users and health care providers. Thus, information and communication technologies combined with advanced practice nursing can relieve social distancing and its repercussions on health care.

DESCRIPTORS

Telenursing; Advanced Practice Nursing; Coronavirus; Nursing Theory; Biomedical Technology.

Corresponding author:

Aline Nair Biaggio Mota
Av. Dr. Eneas de Carvalho Aguiar
419, Cerqueira César
05403-000 – São Paulo, SP, Brazil
anbiaggio@gmail.com

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INTRODUCTION

The new coronavirus SARS-CoV-2 was identified in Wuhan, China, in December 2019. Its rapid spread was responsible for the declaration of the pandemic by the World Health Organization (WHO) on March 11, 2020⁽¹⁾. The coronavirus disease 2019 (COVID-19), caused by SARS-CoV-2, presents variations ranging from mild and moderate flu-like symptoms to severe acute respiratory syndrome of high lethality. About 530 million cases and more than 6.2 million deaths were recorded worldwide as of May 2022. In Brazil, more than 31 million cases and almost 600,000 deaths from COVID-19 were recorded⁽²⁻⁴⁾.

The COVID-19 pandemic is a challenge for health care providers and the entire scientific community. Social isolation was imposed as a measure to control and to prevent the disease. Thus, the health care had to use more Information and Communication Technologies (ICTs/*TICs*), known as e-Health. The use of advanced computer science in “big data,” genomic science, mobile apps (mHealth) and artificial intelligence are among the strategies against COVID-19, with great potential for use of digital health⁽⁵⁾.

Health strategies based on the use of eHealth can teach patients about their own diseases, as well as intensify the treatment adherence while placing individuals as protagonists of care. In cases of chronic diseases, patients should be continuously involved with their treatment. International studies on the use of strategies of sending short message system (SMS) showed that this relationship brings benefits to patients' health, such as stimulating physical activity, quitting smoking, or seeking for drug addiction treatment⁽⁶⁻⁹⁾.

Remote medical services in Brazil, called telemedicine, are authorized since 2002 by Resolution No. 1643 of the Brazilian Federal Council of Medicine (CFM)⁽¹⁰⁾. Telemedicine was expanded on an emergency basis by the Law No. 13,989 because of the COVID-19 pandemic⁽¹¹⁾. In nursing, face-to-face appointments are regulated and ensured by the Law No. 7,498/86⁽¹²⁾ and the Decree No. 94,406/87⁽¹³⁾. However, due to the pandemic and the barriers imposed by it, the Federal Nursing Council (FNC/*COFEN*) approved distance nursing appointments. Resolution No. 634/2020 authorizes and regulates the practice of “[...] nursing teleconsultation as a way to fight the pandemic caused by the new coronavirus (SARS-CoV-2), by appointments, explanations, referrals and guidance with the use of information and communication technology [...]”⁽¹⁴⁾.

The nursing teleconsultation must be previously confirmed by the patients or their legal representative, while the nurse is responsible for conducting it. The teleconsultation must be recorded and is based on the systematization and the nursing process, for organization and care orientation focused on social isolation, environmental protection and management of complications. The professional and/or the linked health institution are responsible for safeguarding the information and the records obtained during the teleconsultation⁽¹⁴⁾. Teleconsultation requires adaptations of both nurse and patient besides infrastructure and connectivity. To ensure the quality of distance consultation the nurse needs specialized knowledge and well-developed skills. We emphasize the use of clinical reasoning and decision-making capacity, closely related to the Advanced

Practice Nursing (APN/*PAE*)⁽¹⁵⁾. A process of transition and adaptation to the teleconsultation is essential for the patient, to identify the needs and adequacy of the interventions. Two nursing theories conceptualizes on basis and understanding of the issues related to the patients and their environment: the Callista Roy's Adaptation Model of Nursing⁽¹⁶⁾ and Chick-Meleis' Transition Model⁽¹⁷⁾. Therefore, considering the COVID-19 pandemic and its effect on patient care Models, this study aims to analyze the theoretical contributions of Roy's Adaptation Model and Chick-Meleis' Transition Model, and also the contribution of teleconsultation as an APN in the care of older adults with chronic diseases.

METHOD

This is a theoretical-reflective study based on Callista Roy's Adaptation Model of Nursing⁽¹⁶⁾ and Chick-Meleis' Transition Model⁽¹⁷⁾. Callista Roy's Adaptation Model suggests that nurses goals are the promotion of individuals' and groups' adaptation of in four ways: physiologic-physical, self-concept identity, interdependence and role function. People will be adapted if they balance these four spheres⁽¹⁶⁾. Chick-Meleis' Transition Theory establishes that a transition represents a change in health condition, relationships, expectations, or abilities. The main points that evidence transition periods are: disconnection with the usual social network, social relations systems, and the emergence of new needs. Therefore, a transition period requires people to incorporate new knowledge and to change their behavior according to their social context or to the internal and external needs that affect health⁽¹⁷⁾.

The theoretical combination of nursing, an organized, coherent, and systematic articulation, consists of concepts aiming to describe, to explain, to diagnose or to prescribe conducts for nursing care practice⁽¹⁸⁾. This study proposes a reflection in two moments: nursing theories and dealing with COVID-19, and the ways of adapting to new care models based on ICTs by implementing the APN.

NURSING THEORIES AND DEALING WITH COVID-19

Based on the WHO's statement on the SARS-CoV-2 virus outbreak as an international public health emergency and, later, with the increase in the number of cases and its fast spread worldwide, the health care of the population required an urgent change. These changes fit Roy's Adaptive Concept and Chick-Meleis' Transition Model, both applicable to Nursing Science.

In Callista Roy's Model, nursing is a profession focused on human life processes and involves groups and societies as a whole. Science and practice expand the capacity to adapt and to improve the individual's adaptive transformation to the environment, responsible for promoting adaptive responses⁽¹⁶⁾. Thus, health, in the face of specialized services provided to the population, reflects the adaptation and interaction between people and the environment. The pandemic required an adaptation and accelerated the use of health care strategies that were still in the beginning. Based on Roy's Adaptation Model, the stimuli that guide nursing care during the pandemic focus on the development of symptoms of infection (focal stimulus),

the presence of pre-existing diseases/comorbidities (contextual stimulus), and external and internal factors, characterized by stress due to the risk of transmission or related to work, and the scarcity of personal protective equipment (residual stimulus). Some dealing processes are present, and ICTs can relieve social distancing and its repercussions⁽¹⁹⁾.

In Chick-Meleis' Model, the transition consists of "a passage from one state, condition, or place to another." The transition is associated with being alive, which is inevitable, but it is not always natural or desired. Therefore, it requires the incorporation of knowledge, change of practices and behaviors and even the self-reassignment. To simplify, the transition is divided into the following phases: entry, passage, and exit⁽²⁰⁾. The Transition Theory has three main elements: the nature of transitions, conditioning factors, and response patterns. The nature of transitions relates to the types, patterns, and dimensions of the process. Regarding types, transitions can be developmental, related to changes in life cycles; situational, when events imply changes in roles; health/disease, when associated to the disease process; and organizational, caused by environmental factors, such as political, economic, and social changes. They appear in different patterns, and may be unique, multiple, sequential, simultaneous, related or not, and have influences among themselves, but remain autonomous. They are complex and multidimensional because they have essential characteristics for transition experiences, such as awareness, commitment, change and difference, time space of the transition, events and critical points⁽²⁰⁾.

The situational diagnosis of a transition occurs by indicators, which are the response patterns. The indicators are categorized as "process" and "result"⁽²¹⁾. Process indicators allow for the identification of the direction of the transition, whether the individual is moving towards a positive outcome or not. Process indicators include feeling connected (to support networks, family, friends, health care providers, and the situation); interaction with health care providers, family, caregivers and people in similar situations; being aware of time, space and relationships; and the development of trust and "coping mechanism," which happen by using resources and developing strategies to gain confidence and deal with the situation. The result indicators refer to mastery (mastery of new competencies) and fluid integration of identity (reformulation of identity, more fluid and dynamic)⁽²⁰⁻²¹⁾.

The worsening of the pandemic in Brazil changed life cycles, the health/disease, and organizational processes, establishing the need to adapt to interact and to survive in a transactional context. COVID-19 started to represent a risk to the entire population, especially health care providers at the frontline of care. Many actions were reevaluated to reduce the number of people acting in person at health institutions, besides the use of new measures for individual protection and direct care to the patient⁽²²⁾. Especially for older adults with chronic diseases, to avoid their exposure to environments at high risk of coronavirus contagion.

COFEN Resolution No. 634/2020⁽¹⁴⁾, which standardized nursing teleconsultation as a way to fight the new coronavirus, allowed the expansion of care with telecare instruments

such as teleconsultation and mobile apps to manage and make decisions for care.

WAYS OF ADAPTING TO NEW MODELS OF CARE AND ADVANCED PRACTICE NURSING

APN, initiated more than 40 years ago, it focus on the professional's autonomy and competence in decision-making, which requires specialized training and clinical reasoning skills. Clinical activities include prescription of drugs, request for tests and diagnoses or advanced health assessment⁽²³⁾. However, advanced practice nurses are commonly found in developed countries. Despite numerous fields of action for advanced practice nurses in Brazil, primary care for example, some barriers impair its expansion, such as lack of training or specific regulation⁽²⁴⁾. Advanced practice nurses need to expand their performance with scientific and technological knowledge to achieve results that affect health indicators. The telehealth model is essential nowadays, especially because it reaches users in places with limited access. Therefore, teleconsultation can be used as an APN instrument, since specialized and high-level knowledge can improve clinical reasoning and decision-making, even at a distance. Besides, its standardization and early use during the pandemic in Brazil show potential as a resource for different areas in the country.

Evidence support the positive effect of telehealth in health care, since it enables more frequent communication and physiological monitoring of patients that reflect on better results and better use of health resources. The technology allows for nurses to reach patients by many remote configurations, expanding the accessibility to health care providers⁽²⁵⁾. The nurse has many roles in this scenario, for example, to assist patients with chronic diseases, such as hypertension. The use of pharmacological treatment management platforms, and the availability or not of blood pressure measurement devices, may involve the patient with health care and improve the seek for treatment⁽²⁶⁻²⁸⁾. These are recent initiatives in Brazil. However, the COVID-19 pandemic influenced the expansion of remote care strategies that seem to be a permanent reality.

Health care providers, especially nurses, are essential to minimize the effects of the public health calamity. They are the protagonists in controlling the transmission of this disease at the frontline and by supporting the continuity of teleconsultation. The nursing team or the multi-professional team conduct the "duty of health" in many contexts, so that each professional category has its framework of knowledge and practices that aim at the diagnosis, prevention and recovery of diseases and injuries that affect the individual, the family and the collective⁽²⁹⁾.

Teleconsultation must be developed by a nurse with technical competence and autonomy and who knows how to distinguish an advanced practice nursing from a generalist one. The Systematization of Nursing Care (SNC/*SAE*) is a private activity of nurses and is part of the nursing process. Therefore, the method and strategy of scientific work enable nurses to develop an advanced practice nursing and identify health/disease situations, supporting the prescription and implementation of nursing care that can contribute to the promotion, prevention, recovery and rehabilitation of health for a person, family, and community. Besides, the implementation of the APN must

consider the health needs of the community as well as the nurses' expectations regarding their professional and social role⁽³⁰⁾.

Finally, teleconsultation is an APN that requires nurses to fully develop their clinical reasoning to implement a well-designed nursing process, which must be supported by a consistent theoretical framework. Its accomplishment requires the nurse's involvement to know the patient as an individual, by applying an instrument developed and based on a theoretical model that uses standardized taxonomies and that is appropriate for telehealth. Moreover, training the team allows for a quality nursing appointment able to identify accurate diagnoses and nursing problems, by using intentional questions and indicating relevant interventions to achieve the expected results.

The fact that APN is not regulated in Brazil is a limitation, which reflects the scarcity of specialized training and few national studies on the theme, thus impairing the care basis in the Brazilian scenario.

RESUMO

A teleconsulta pode ser definida como uma prática avançada de enfermagem que requer do enfermeiro raciocínio clínico fundamentado em um arcabouço teórico consistente para aplicação no processo de enfermagem. No presente estudo, realizou-se uma análise teórico-reflexiva, fundamentada no Modelo de Adaptação de Callista Roy e na Teoria de Transição de Chick-Meleis, sobre a contribuição da teleconsulta como prática avançada de enfermagem no atendimento a pacientes idosos e com doenças crônicas no contexto da pandemia de covid-19. A reflexão é apresentada em dois momentos: "teorias de enfermagem e o enfrentamento da covid-19" e "formas de adaptação a novos modelos de assistência e as práticas avançadas em enfermagem", norteados pelas tecnologias de comunicação e informação. O agravamento da pandemia no Brasil trouxe mudanças relacionadas aos ciclos de vida, aos processos saúde/doença e organizacionais, demandando o desenvolvimento de um estado adaptativo-transacional por parte dos usuários e profissionais de saúde. Neste contexto, as tecnologias da informação e comunicação aliadas à prática avançada de enfermagem representam papel fundamental para atenuar o distanciamento social e suas repercussões na assistência à saúde.

DESCRITORES

Telenfermagem; Prática Avançada de Enfermagem; Coronavírus; Teoria de Enfermagem; Tecnologia Biomédica.

RESUMEN

La teleconsulta es una herramienta de la enfermería de práctica avanzada que requiere un razonamiento clínico de los profesionales de enfermería basado en un marco teórico consistente para aplicarse en el proceso de enfermería. Este estudio realizó un análisis teórico-reflexivo, basado en el Modelo de Adaptación de Callista Roy y en la Teoría de las Transiciones de Chick-Meleis, sobre el aporte de la teleconsulta como herramienta de la enfermería de práctica avanzada a la atención de pacientes adultos mayores y de aquellos con enfermedades crónicas en el contexto de la pandemia del Covid-19. La reflexión se presenta en dos momentos: "teorías de enfermería y enfrentamiento al Covid-19" y "modos de adaptación a los nuevos modelos de asistencia y las prácticas avanzadas en enfermería", fundamentados en las tecnologías de la información y la comunicación. El avance de la pandemia en Brasil trajo cambios relacionados con los ciclos de vida, los procesos de salud/enfermedad y procesos organizacionales, que requirieron el desarrollo de un estado adaptativo-transaccional por parte de los usuarios y los profesionales de la salud. En este contexto, las tecnologías de la información y la comunicación, sumadas a la enfermería de práctica avanzada, jugaron un papel clave para mitigar el distanciamiento social y sus repercusiones en la asistencia sanitaria.

DESCRIPTORES

Teleenfermería; Enfermería de Práctica Avanzada; Coronavirus; Teoría de Enfermería; Tecnología Biomédica.

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ASSOCIATE EDITOR

Líliade Souza Nogueira



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