







ANALYSIS OF THE CASE MANAGEMENT MODEL FOR PEOPLE WITH MULTIMORBIDITY AND FAMILY CAREGIVERS

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ABSTRACT

Objective: To understand the experience of nurses and decision-makers when implementing the case management model in the care of patients with multimorbidity and their family caregivers. **Method:** Qualitative descriptive study including nurses and decision-makers and conducted in Bogotá, Colombia. Content analysis of field journals and semi-structured interviews carried out in 2019-2020 was performed. ATLAS-TI was used for data processing and analysis. **Results:** Six nurses and two decision-makers participated in the study. The following categories emerged: Nursing perception of care provided to patents with multimorbidity and their social environment; Nursing care experience in case management: role, contributions, and difficulties; and Implementation of the case management model in the Colombian context: implementation, impact, and role of providers. **Conclusions:** The case manager requires experience and skills to communicate properly. Case management improves quality of life, therapeutic adherence, use of health services and reduces overload.

DESCRIPTORS: Case management; Multimorbidity; Nursing; Caregivers; Qualitative research.

HOW TO REFERENCE THIS ARTICLE:

Montañez RAC, Rodríguez LCG, Vargas AMA, Lopez SNP, Algarra AJC, Hernández-Zambrano SM. Analysis of the case management model for people with multimorbidity and family caregivers. *Cogit. Enferm.* [Internet]. 2021 [accessed "insert day, month and year"]; 26. Available from: <http://dx.doi.org/10.5380/ce.v26i0.79823>.

INTRODUCTION

Global epidemiological and demographic transition explains the increase in chronic non-communicable diseases (NCD), which are associated with years of potential life lost and a high family, social and economic burden that kill 41 million people worldwide each year (71% of overall mortality)⁽¹⁾. In Colombia, more than one hundred thousand people die from NCDs⁽²⁾, and those who suffer from them report decreases in quality of life and therapeutic adherence. Moreover, these diseases generate functional deterioration, interrupt family activities and increase hospital readmissions, complications and fragility⁽³⁾.

Multimorbidity requires models of care such as Kaiser Permanente, which stratifies people according to risk and combines prevention, self-management, disease management and case management (CM) in highly complex patients⁽⁴⁾. CM is an advanced practice nursing role aimed at providing health care services to complex chronic patients and primary caregivers to meet their needs, minimize fragmentation of care, coordinate different providers, and improve continuity of care^(5,6).

Despite the effectiveness of the CM model in health outcomes—such as controlling clinical situations, reducing caregiver burnout and polypharmacy, improving health service utilization, care coordination, quality of life, and home care,—⁽⁷⁾ no reports of its implementation and evaluation can be found in the Colombian Health System.

The qualitative analysis to evaluate the CM model in complex chronic population in Colombia showed that is oriented toward continuity of care with coordination between levels, professionals and sectors; mobilization of social and health services; optimization of services; quality assurance in transitions and individualized therapeutic plan; and promotion of empowerment and autonomy in the care management of the patient and main caregiver⁽⁸⁾.

Given the importance of collecting qualitative evidence, the objective of the present study is to understand the experience of nurses and professionals working at Benefit Plan Administration Entities (EAPB by its acronym in Spanish) regarding the implementation of the CM model to care for patients with multimorbidity and their family caregivers.

METHOD

A qualitative descriptive study was conducted, with a focus on evaluative research, as this method provides evidence on the basic mechanisms for carrying out interventions, examines the process of implementing health care programs, and measures outcomes.

Six nurses trained in CM and two decision-makers from two EAPB participated. Inclusion criteria: Case management nurses with a license to practice in Colombia, with at least two years of hospital or community work experience, postgraduate studies and trained to manage complex chronic patients and family caregivers were included. Decision-makers were health professional appointed by the EAPB to implement the CM model.

The CM was carried in Bogotá by means of home visits to 317 patients with multimorbidity and their caregivers for 12 months with four components: case identification; personalized assessment; design, execution and evaluation of the care plan using NANDA (North American Nursing Diagnosis Association), NIC (Nursing Interventions Classification), NOC (Nursing Outcomes Classification) taxonomies, coordination of interventions with other providers, management of administrative barriers; and case closure.

The sample was selected by convenience based on the inclusion criteria with voluntary participation. Six field journals⁽⁹⁾ were collected from July to December 2019 and eight semi-structured interviews were conducted between April and May 2020 to learn about therapeutic relationship, implementation of the care plan (CP) and acceptability and feasibility of the model in Colombia. Regarding decision-makers, the role of EAPBs in the implementation of the model in the country was explored. Interviews were conducted and recorded by video call using Google Meet, with an average duration of 45 minutes. They were subsequently transcribed by a trained person, who signed a confidentiality agreement.

Data were processed and analyzed with ATLAS-Ti version 8. Interview transcripts and field journals were organized, and content was analyzed following the first stages of Bryant and Charmaz⁽¹⁰⁾, who propose open coding, line by line, to create codes. Through reflective memos, data were examined, compared and categorized to group them by meaning relationships in code networks. This allowed to compare, highlight key points and connections (co-occurrences), and interpret results to build the final categories, favoring those supported during face-to-face interviews according to the software.

Ethical considerations: This is a minimal risk research. The provisions established in Resolution 8430 of 1993 of the Colombian Ministry of Health⁽¹¹⁾ were taken into account. The Ethics Committee on Research involving Human Subjects of the Hospital de San José granted its approval (Minutes 9 of May 24, 2017).

RESULTS

Six nurse managers and two professionals from EAPB (Medicine and Nursing) with an average age 34.2 years, specialized in nephrological nursing for adults, epidemiology, health institution management and with a master's degree in public health or nursing participated in this study. The decision-makers were a patient pathway coordinator and a health care professional of the model.

Once the analysis was completed, three categories appeared, from which the following subcategories emerged:

Category 1 – Nursing perception of patients with multimorbidity and their social environment

This item encompasses the nurses' perspective on the definition of the subject of care, caregiver, and care setting. The subcategories 'perception of the care subject' and 'care setting' describe the person from a physical, emotional, and spiritual standpoint and how their social environment influences the development of the disease. In turn, the subcategories 'caregiver role' and 'caregiver overload' describe the caregiver's role in providing care at home and overload as a risk factor.

Perception of the subject of care and their relationship with the environment

CM is initially perceived as an invasion of their privacy and environment; some patients do not want to be accompanied and do not follow instructions due to predisposition, prejudices about health care providers, and skepticism associated with previous unfavorable experiences, making the nurse-patient relationship and the intervention difficult. Subsequently, the patients' perspectives change positively, communication improves, and they become more active in their care.

Multimorbidity demands treatments and hospitalizations that result in loss of employment, strained relationships with friends and family, isolation, and deterioration

of self-concept and self-confidence. Some people needed psychological care, and many showed a need for affection. Spiritually speaking, belief in a supreme being generates better coping strategies, enjoyment of life experiences, and understanding or acceptance of death.

She lost her job when she was diagnosed with the first disease [...] Later, she developed more conditions that affected her emotional state, eventually leading to a recurrent depressive disorder [...] She lost her friends... and recognizes that she has isolated herself... She doesn't have much time either because, in addition to her role as a patient with multimorbidity, she is the caregiver of her parents and grandmother. (Participant 2)

Nurses report their admiration for patients with multimorbidity who, despite their clinical condition and advanced age, are motivated to develop daily activities and take care of themselves to manage their condition and enhance their well-being.

Nursing perception of the caregiver's role and overload

Caregivers are relevant for the patient's quality of life because they provide support and accompaniment and facilitate coping and adequate management of the situation, contributing to well-being, regardless of socioeconomic conditions. Some caregivers are also patients with multimorbidity and when this happens at an early age, they play a dual role: patient and caregiver.

[...] Caregivers provide care for all routine activities, from daily hygiene, feeding, medication administration, to difficult procedures to obtain medical appointments [...]. (Participant 2)

Relatives consider that the Colombian Health System delegates care to them without prior training, resulting in a lack of information about disease management and making it difficult to meet the patient's needs, even though they are interested in and willing to take care of them comprehensively. The family caregiver takes on tasks that meet basic, physical, emotional and social needs, or other more complex needs such as administrative care management, therefore, there is a risk of overload.

Category 2 – Nursing care experience in CM: role, contributions, and difficulties.

This category analyzed the nursing experience with regard to their role in the model. The nursing role subcategory outlines the competencies required for care in the context of CM, as well as the contributions, obstacles, benefits of experience for case managers' personal and professional lives, and difficulties in implementing the model.

Nursing role in CM: perception and competencies of the professional.

Nurses recognize the importance of taxonomies for implementing individualized CM, because it allows identifying needs based on comprehensive assessment, diagnosis, and interventions to achieve the proposed objectives. The ability of nurses to provide comprehensive care defines their role in CM. Their care includes home accompaniment; patient and caregiver education; follow-up of interventions by telephone or video calls; providing tools to empower patients and caregivers and promoting treatment adherence; recognizing the role of the caregiver and providing opportunities to communicate overload; care aimed at promoting physical, mental and emotional well-being; and articulating care settings.

During the CM intervention, patients preventively isolated due to COVID-19, so, through telephone or video calls, managers aimed interventions for patients and caregivers toward personal protective measures such as social distancing, hand washing, use of face masks and lockdown. Given the condition of these patients, nurses face end-of-life events and intervene in loss management, regulating the expression of emotions during mourning. They also recognize the importance of relatives as caregivers.

By consensus, the manager's profile includes clinical, community and administrative experience, responsibility, leadership, and communication skills to guide, provide comprehensive care, and empower patients in decision-making. They emphasize that CM should be led by nurses, given their closeness to patients and their environment, as well as their skills to generate empathy and educate in health. Coordination with other sectors is recommended to improve the quality of life and well-being of the community.

[...] Clinical, teaching and research experience, with leadership, communication, and empathy skills [...] She is a respectful person with the ability to transmit information clearly [...] (Participant 2)

The managers solved the problems of barriers related to the delivery of medicines and timeliness of medical appointments. They also followed the progress of the CM of patients and caregivers at home or by telephone. Health care providers report that nurse managers could participate in the readjustment of pharmacological treatment and referral to other specialties.

Contributions to personal and professional life and CM difficulties in the caregiving experience

For the nurses, participating in CM meant self-knowledge and learning. Experiences with patients and families enabled them to strengthen and gain new knowledge to address patient vulnerabilities and needs and to reflect on self-care.

In addition, it increased their awareness of their professional role in the evolution of a person's health, the need to update their knowledge, improve their interventions based on evidence to meet the objectives of the CM and their listening capacity. They also learned about the relevance of CM as a necessary model for Colombians because inconveniences in care hinder patient follow-up by the health care team and results in deterioration. When there were problems during CM, timely and quality care was difficult to achieve, generating claims for non-compliance.

Nurses report that reaching participants who live in places of difficult access is one of their main challenges, as well as dealing with aggressive behaviors that impede therapeutic relationships.

At first, it was a little complex to interact with the patients, to know where we were going, to find their addresses [...]. (Participant 3)

One of the care providers was going through difficult financial and administrative situations in his company, so the population of this EAPB was smaller. This person recognized that the delivery of medicines and user care were his main obstacles, as it was impossible to speed up medical appointments. Another provider stated that the lack of EAPB-hired nurses made it difficult to resolve administrative barriers.

[...] Not having the case managers working with us is a barrier, because if they did, they would be familiar with our operation and would be able to solve problems more easily [...]. (Participant 8)

Category 3–Implementation of the CM model in the Colombian context: implementation, impact, and role of providers

This category includes professionals' perspective on the implementation of the CM model in Colombia. The first subcategory involves home visits and video calls as modalities, as well as changes in the health system to ensure comprehensive and integrated care. The second describes the benefits perceived by patients and caregivers after applying the model. Finally, the third sets out the role of health care providers.

CM implementation in the Colombian context: modalities and vision

During the CM process, a video call was made, which according to some nurses, complements home visits for follow-up, but requires economic resources to pay for Internet services and to know how to use this technology. They agree that it was difficult for older adults to learn to use it. According to them, the benefits of home visits include providing patients with home care, allowing for a closer approach to them, giving patients and caregivers more support and accompaniment during face-to-face meetings, allowing the nurse to know the specific conditions of the household to address real needs, and generating personalized care with better adherence to the program.

Due to the COVID-19 contingency, the managers continued the CM process by telephone or video calls. They state that effective communication does not require mandatory face-to-face meetings and also consider that implementing the CM model in Colombia contributes to primary health care, allows an effective approach to the patients, and facilitates guiding patients and caregivers through health services while avoiding time-consuming administrative procedures.

The Colombian Health System has barriers to CM. Some patients must bear the costs of their treatment, the articulation of the EAPB with the Health Service Provider Institution (IPS by its acronym in Spanish) fails, and there are procedures such as authorization of medications that involve going to several places sometimes without receiving a response. All of these issues make continuing treatment and nursing intervention challenging. Implementing CM requires means, tools and expert professionals, and the number of patients per manager should be assessed to ensure that treatments are effective and meet their goals.

[...] It is going to be a process difficult to adapt, but it is doable because we, as nurses, are interested in doing it [...] Means and tools are required to perform CM; it may take time, but it can be done. (Participant 4)

Impact of the CM model on patients and caregivers

Benefits for patients, caregivers, and nurses were identified after inquiring about the perceived effect of CM implementation in Colombia. In terms of adherence to treatment, patients could improve some aspects of their diseases, kept them under control, comply with most of the recommendations, improve attendance at medical check-ups, decrease attendance at the emergency service, and patient satisfaction with their health insurance increased.

Visualizing the role of the caregiver was an achievement, since making it explicit strengthened and demonstrated the importance of caring for patients at home and how it directly affects the quality of life and the disease process. When caregivers were identified, they were integrated into the care of their relatives through interventions aimed specifically at them to provide support for the adoption of their role and recognizing overload. Furthermore, the model helped reveal negative aspects that affected the relationship between caregivers and patients and solving them allowed obtaining better health outcomes for both parties.

[...] It generates greater adherence to treatment, greater knowledge of the disease, decreases costs, hospitalizations and emergency service visits. [...] Working with the family and integrating it strengthens interventions to improve the disease process. (Participant 7)

Health care providers: role and relationship with the case manager

In the implementation of the CM, health service providers identified the target population of the model and managed administrative barriers, Each EAPB appointed a professional to liaise with the managers to understand the needs and coordinate their resolution. The managers participated in the monthly CM meetings held by the EAPBs to communicate patients' needs, so that providers could address them in a timely manner.

[...] I was the EAPB liaison to identify the users and technical aspects, coordinate the work of the IPS with the EAPB and the different risk groups, and provide information to address the needs that the managers found [...]. (Participant 7)

The provider-manager relationship requires good communication for the EAPB liaison person to guide the needs of users in different areas of the organization.

[...] An important skill is to have good communication within the different processes of the EAPB, to know its location, where to refer a user to solve their requests, and to have leadership to support and coordinate all that they need [...]. (Participant 7)

DISCUSSION

According to the 2019 Health Situation Analysis, Colombia's social and economic progress has favored an increase in life expectancy to 76 years, one of the highest in Latin America, exceeding the world average of 72.5 years in 2018.⁽¹²⁾ Sociodemographic, cultural and lifestyle changes reflect a high prevalence of chronic diseases, which cause health issues with significant social and economic consequences.⁽¹³⁾

Nurses consider the model to be a good alternative for ensuring the continuity of care for patients with multimorbidity in the health system, understood as their right to receive care on a continuous basis, without interruption for administrative or economic reasons⁽¹⁴⁾. The quality of services requires comprehensiveness, effectiveness, efficiency, and continuity to guarantee and protect the right to health of people who need specialized institutional and home care⁽¹⁵⁾.

CM should be led by nursing professionals as defined by the International Council of Nurses⁽¹⁶⁾, that is, licensed nurses with specialized knowledge, decision-making skills, clinical or community competencies for advanced practice—including leadership skills and articulation—and mediation capacity to guide effective resolution of the needs of patients with multimorbidity, as well as specialized training. A study suggests that CM should be led by nurses with knowledge of quality models, methods, planning techniques, evaluation, and management gained through clinical and professional leadership and interprofessional relationships and consulting, all of which are evidence-based practice competencies.⁽¹⁷⁾

The manager must provide care in homes and communities by integrating and coordinating the resources of the health system at various levels of care. This requires administrative competencies focused on planning, mobilizing and managing resources to maintain and improve the quality of life of the patient-caregiver dyad from a holistic perspective⁽¹⁸⁾. The effect perceived by the managers reveals positive results in patients and caregivers because CM improved treatment adherence and caregiver overload, as evidenced by decreased admissions to the emergency department, admissions, hospitalizations and diagnostic tests. CM programs lead to improvements in functional capacity, better medication management, reduced service utilization, and hospital readmissions, days of hospitalization and institutionalization. This strategy increases competencies for the patient-caregiver dyad.

Caregivers, by integrating directly into nursing interventions, strengthen their role and move from frustrating, exhausting, and stressful experiences to positive ones.⁽¹⁹⁾ Nurses describe the strengthening of their professional and personal lives, which varies depending on their perspective. All of them state that they help improve the quality of life of people and acquire knowledge and experiences that make them grow.

The assessment of patients with multimorbidity reveals physical, spiritual, social, emotional, and psychological needs. Based on those findings, the manager creates her

CM, which includes educational and counseling interventions to prevent complications and promote health by facilitating the autonomy of patients and caregivers, empowering them in their self-care. The importance of the NANDA-NOC-NIC tool for integrating care is evident because it supports decision-making, facilitates the selection of interventions that improve health outcomes, and allows monitoring and evaluating outcomes based on technical and scientific knowledge⁽²⁰⁾.

Concerning the study's limitations, it should be noted that the analysis of the CM model implementation was carried out with the subjects who participated in the intervention, which limited the number of participants. However, triangulation of data collection techniques (field journals and interviews) allowed a contextual analysis of the study phenomenon, as well as the triangulation among researchers, who independently examined the information and then gathered to analyze together the most relevant aspects or those in which there was no consensus, thus favoring rigor.

CONCLUSION

The case management nurse requires extensive clinical, community, or administrative experience, as well as qualities and skills to effectively communicate with the patient and caregiver to respond to the needs of the dyad and improve their health condition. Regarding the perceived effect of CM, improvements in quality of life, therapeutic adherence, attendance to medical check-ups and reduced visits to emergency services and hospitalizations are highlighted. Caregivers, by integrating directly with interventions, were able to strengthen the caregiver role and reduce overload. For nurses, CM meant a new experience and personal and professional growth that allowed them to develop strengths in their approach to the subject of care.

This study contains crucial aspects on the model's implementation in Colombia, such as the profile of the nurse, geographic referencing, and the insurer's recruiting process of the manager, which allows the integration of the entire care process. Similarly, the CM model for the country is a challenge in all scenarios, so it is recommended that insurers evaluate its inclusion to achieve high health care standards in the home and clinical context. The use of standardized language in nursing care allows professionals to make decisions and choose effective interventions for better outcomes.

FUNDING

This product is part of the project "Effectiveness of a case management model for the comprehensive provision of health services to patients with multimorbidity," funded by the Administrative Department of Science, Technology and Innovation of Colombia (COLCIENCIAS) through Call 777 for Science, Technology and Innovation in Health projects - 2017, contract number 848-2017.

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Received: 04/03/2021

Approved: 30/03/2021

Associate editor: Luciana Alcântara Nogueira

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ISSN 2176-9133



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