

# Older Adult with Colorectal Cancer in the Community, Strategy Design for Self-Care

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## ABSTRACT

**Introduction:** older adults with colorectal cancer seek to adapt to the situation, but need to be instructed by the community health team through a strategy to carry out actions aimed at self-care.

**Objective:** design a self-care strategy for older adults with colorectal cancer in the community.

**Methods:** descriptive non-experimental study, on the design of the self-care strategy for older adults with colorectal cancer in the community, in the South Polyclinic, province and municipality of Sancti Spíritus, from January to May 2019. The first stage was the bibliographic review, the second the design of the strategy and the third validation by experts. Theoretical, empirical and statistical methods were used to analyze the data, as instruments for the level of self-care the Self-care Capacity and Perception Test.

**Results:** 32 articles out of 113 identified were found that responded to the research needs. For the design, the traits and criteria of strategies, the theoretical foundations of self-care were taken into account. Of the selected experts, comprehensive general medicine doctors predominated, with 10 or more years of specialists, masters. In the experts' evaluation of the actions and activities, the category of very adequate predominated. **Conclusions:** With the strategy that is designed, it can become a methodological work instrument for doctors in primary health care, which allows better monitoring of older adults with colorectal cancer.

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**Keywords:** Self-Care; Elderly/Senior Adult; Colorectal Neoplasms; Health Strategy; Experts

**Abbreviations:** CRC: Colorectal Cancer; CGM: Comprehensive General Medicine; DeCS: Descriptors; PRISMA: Preferred Reporting Items for Systematic Review and Meta Analyses; PHC: Primary Health Care; Kc: Knowledge Coefficient; Ka: Knowledge Argumentation

## Introduction

The population of older adults in the world is expected to have accelerated growth in the coming years [1]. It is an issue of importance for Cuba, estimates suggest that the group aged 60 years and over will reach 30.00% in 2030. and by 2050 the country will be one of the oldest on the planet [2]. Among the Cuban provinces with the greatest aging is Sancti Spíritus [3]. Physical changes occur during aging, which, together with the exposure to biological, environmental and infectious risk factors, lead to an increase in morbidity and mortality from malignant tumors, including colorectal cancer (CRC) [4]. This disease is one of the leading causes of death in Europe and the United States [5]. In Latin America, an increase in deaths from CRC has been observed in the last decade [6], Cuba does not escape this problem. This disease causes around nine percent of the total deaths from cancer in the country [7]. Older adults with CRC seek to adapt to the situation of the condition, so they carry out actions aimed at improving their health status, which imply the recognition of the barriers that interfere with self-care actions [8]. In 1969 Dorothea E Orem, developed the Self-Care Model, which in turn includes the Self-Care Deficit Theory [9].

The definition becomes an essential reference in research on this topic in the different sciences. Literature reveals definitions and conceptual understandings of self-care [10]. According to the Pan American Health Organization, the guidelines for self-care interventions for health and well-being are defined, issued by the World Health Organization [11], these must be developed by the health team, doctor and nurse. When designing a strategy, it is taken into account that it will be aimed at solving the problems detected in a certain segment of human activity. Its design involves the dialectical articulation between the goals pursued and the ways to achieve them in the short, medium and long term projection through the use of certain resources and means that respond to certain guidelines. It is necessary that the community doctor or Comprehensive General Medicine doctor (CGM) have tools in their work system that allow them to effectively influence, together with the nurse, the best perception of self-care in older adults with CRC. The implementation of educational strategies to achieve this objective would contribute to achieving a better quality of life for these people.

The implementation of health strategies on self-care allows sick people to resume their return to social activities [12]. Self-care is relevant to the nurse, it is not wrong when nursing is considered as the science of care, so when conducting research on this topic they do not place the CGM doctor as responsible for the instruction of the elderly with CRC, so you can learn and achieve self-care. In the Cuban environment, research has been done on self-care of the elderly, but studies coordinated by CGM doctors are scarce [13,14]. At the Dr. Rudesindo García del Rijo Polyclinic (South Polyclinic), in the province and municipality of Sancti Spíritus, in 2019, a prevalence of 127 older adults with CRC was observed in the Health Situation Analysis.

On the other hand, the doctors who work in the polyclinic offices lack a health strategy that allows them to instruct older adults with CRC in their self-care. The objective of the research was to design a self-care strategy for older adults with CRC in the community.

## Methods

A descriptive non-experimental study was carried out on the design of the self-care strategy for older adults with colorectal cancer in the community, at the South Polyclinic of Sancti Spíritus, Cuba during January to May 2019. The research was structured in three stages. In the first stage, the bibliographic review was carried out systematically between January and February 2019, with critical analysis of documents that support the theoretical foundations of self-care of older adults with CRC. Books, theses, original articles and reviews published between 2014 and 2019 were included according to the inclusion criteria. The descriptors used were "self-care", "elderly", "colorectal neoplasias", "health strategy", "experts", according to the thesaurus of Health Sciences Descriptors (DeCS). The Boolean operators were AND and OR. Elderly was used as an alternative description of older adult. The SciELO, Google Scholar, Scopus, MEDLINE and PubMed databases will be used. The Preferred Reporting Items for Systematic Review and Meta Analyses (PRISMA) flowchart was used to contribute to the formulation [15], which is described in Table 1. The guiding question was developed through the CPC (Concept, Population and Context) format [16]. C (self-care), P (older adult with CRC) and C (in the community) were considered: What scope does the existing scientific literature have on the self-care of older adults with CRC in the community? Cross-sectional inclusion and exclusion criteria were established for all databases consulted.

**Table 1:** Search strategy according to database.

Database	Descriptors	Search strategy
SciELO.	Self-care	(((Self-care AND (elderly) OR (older adult) AND (colorectal neoplasms) AND (health strategies) AND (Health strategies AND experts)))
Academic google.	Elderly/senior adult	
Scopus.	colorectal neoplasms Health Strategies	
MEDLINE/ PubMed.	Experts	

## Inclusion Criteria

- Original articles published between 2014 to 2019 and those that merit it due to their importance.
- In Spanish, English or Portuguese, free access and through the INFOMED Cuban Health Telematics Network.

## Exclusion Criteria

- Editorial articles, clinical cases and those for which the full text could not be accessed.

Duplicates were eliminated and the remaining articles were read through the titles and abstracts, a step in which those that do not fit the eligibility criteria were eliminated and then the full article was read, to extract the necessary information. They were critically evaluated through thematic content analysis, as well as the discussion of results with which comparisons and evaluations of the authors were made, to present the final result. The second stage, was the design of the self-care strategy, was developed in the month of March 2019. It was designed with elements that contributed to the characterization of the selected study sample [17]. In this stage, the construction criteria and general features were used for the design of strategies [18]. The bibliographic review made it possible to provide theoretical elements of self-care, as well as tests for its evaluation, which informed the design. It was structured into: introduction, diagnosis, statement of the general objective, strategic planning, instrumentation and evaluation, which was assumed from Naranjo's research [19]. The strategy starts from a real state to a desired state, through intervention actions, prepared consciously and intentionally, always taking into account the context in which the process develops.

The systematic negotiation of the objectives to be met in the care of older adults with CRC was coordinated by the researchers. An integrated work team was established, the nurse, the internal medicine doctor, the social worker, the psychologist, who determined the techniques to be used in each activity. Work sections were carried out at the polyclinic, with three weekly frequencies for a period of two weeks until the design of the activities was completed. For the construction of the activities to be developed, the methodology of participatory health promotion techniques, auditory, visual, experiential, written and graphic, was followed. Individual and group techniques were combined, with a scheme to facilitate the choice of the most appropriate dynamics. A logical sequence was followed in the learning process: first the acquisition of knowledge, then attitudes, and then skills were worked on [20]. It would take place in twenty-two sessions with a biweekly frequency, lasting one hour. The sessions would respond to methodological requirements in the instruction of self-care to the elderly with CRC, so the strategy would be developed in the home of the elderly with CRC or in the doctor's office. To determine self-care, the Test of Self-Care was used as a tool. Capacity and Perception of Self-Care for older adults, CYPAC-AM [21].

The third stage was developed in April 2019 once the design process was completed. Expert judgment was used to validate the strategy according to the applicability, feasibility and need for its introduction in Primary Health Care (PHC), relevance for its implementation, as well as timeliness and scientific level. At this stage, the expert selection process was carried out, of potential experts, who were characterized by having more than 10 years of work experience dedicated to caring for the elderly in the PHC, with main teaching categories, with the presence of master's degrees and Doctors of Science, including one in Nursing Sciences, as well as CGM doctors, among other spe-

cialties. The competence coefficient, (K), was considered an essential requirement. It was determined from the opinion shown by them about their level of knowledge about the research problem. When evaluating the results of the knowledge coefficient (Kc) and argumentation (Ka), we proceed to select those who obtained a high K,  $0.8 \leq K \leq 1.0$ , through the formula  $K = 0.5 (Kc + Ka)$ , 18 experts are selected.

The strategy proposal was delivered, which would allow them a better understanding, the experts had to express their criteria, qualifying it as: very appropriate (VA); quite adequate (QA); adequate (A); poorly adequate (PA) and not adequate (NA). The experts could present, at the end of the submitted proposal, any critical idea, recommendation, other aspect related to the actions and activities or propose new ones if they considered it so. From an ethical point of view, the study was analyzed and approved by the Ethics Commission and the Scientific Council of Medical Sciences of Sancti Spiritus and by the Municipal Health Directorate of the Sancti Spiritus Municipality. This study did not imply physical or psychological effects on older adults with CRC. The provisions of the Declaration of Helsinki were taken into account at all times.

## Results

In the first stage, the bibliographic review was carried out to address how the topic was treated in the national and international scientific community. The selection strategy is shown in Figure 1. 32 articles were found out of 113 identified with the inclusion criteria. The role of the MGI in guiding the self-care activities of older adults with CRC in the community was insufficient, as was the lack of formulation of strategies for its implementation. The second stage was the design of the self-care strategy for older adults with CRC in the community (Annex 1). The characteristics of the strategies were taken into account, the current proposal has the following structure:

- 1) Introduction: the community and the offices of the family doctor and nurse (OFDN) were established as the context. The problematic situation raised in the research, the potentialities and limitations that are present in it were taken into account.
- 2) Diagnosis: with emphasis on the real state of the object and evidence of the health problem around which the strategy had to be developed.
- 3) General objective: develop self-care of the elderly with CRC in the community through the instruction of the MGI doctor so that the elderly learn and achieve adequate self-care.
- 4) Strategic planning: it was made up of 11 actions and 44 activities. A biweekly frequency of one hour for 11 months, participatory techniques were used. Each encounter was accompanied by measurement criteria, in the form of Positive, Negative and Interesting (PNI).
- 5) Instrumentation: it was instrumented by the CGM doctor,

taking into account the skills and attitudes of each older adult, the educational level and information they had about their illness and how to relate it to their daily life, to minimize their dependence on the illness.

6) Evaluation: clinical evaluation was carried out on the old-

er adult in each action. At the end of each section, PNI indicators are also included, as a criterion for measuring the action. To measure self-care, the Self-Care Ability and Perception Test for Older Adults (CYPAC-AM) was used in the pre- and post-strategy assessment.

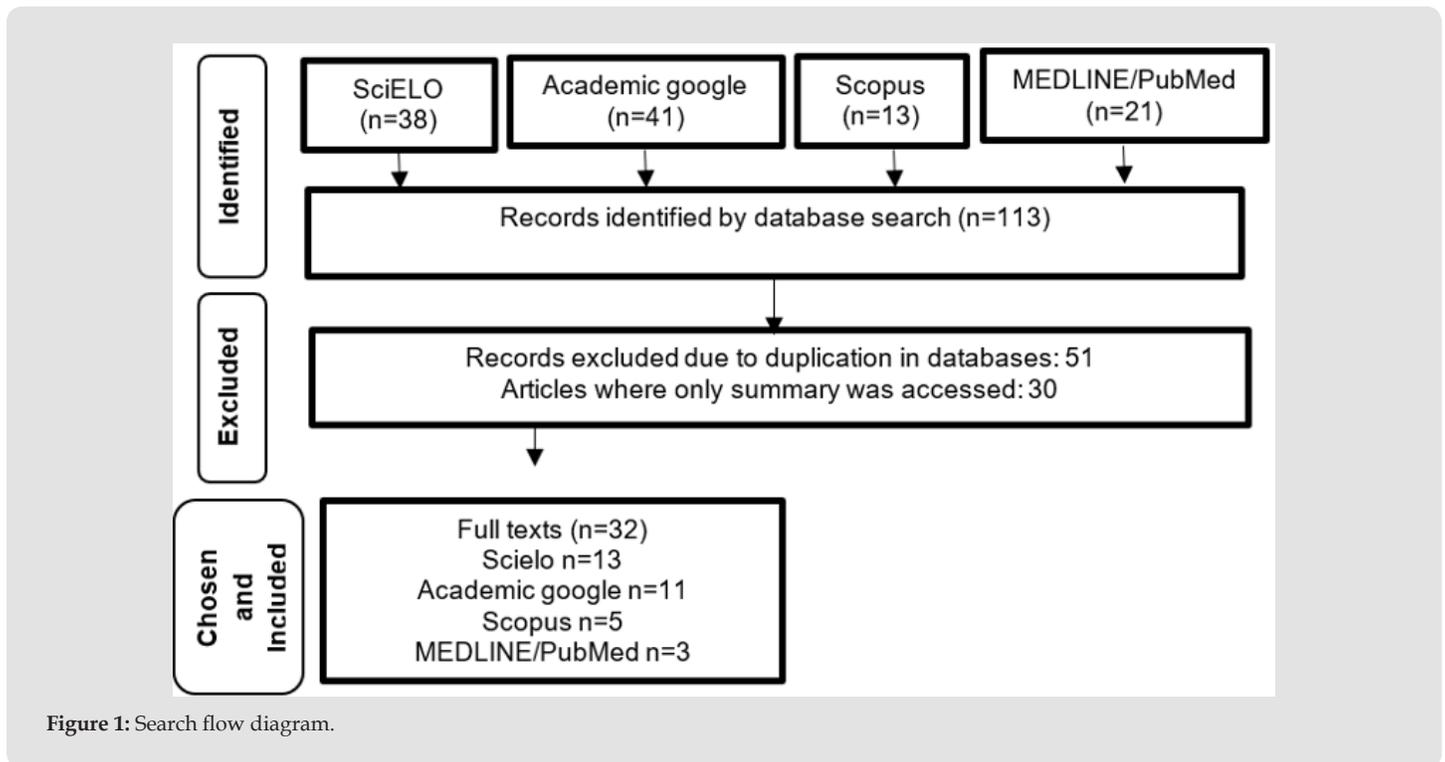


Figure 1: Search flow diagram.

To make an abstract approach to the strategy, the authors decided to outline it. Figure 2 shows the graphic representation of the proposed strategy. In the third stage, validation by experts of the proposed strategy, the criteria of 18 experts was used. Their characterization is shown in Table 2. CGM specialist experts predominated by 66,66 %. They had 10 or more years of professional and specialist experience with 72,22 % and 83,33 %. The predominant scientific category with 88,88 % was the master's degrees and professors with the teaching category of Assistant professor at 72,22 % were the majority. The experts evaluated the proposed strategy based on the

aspects: applicability, feasibility and need for its introduction in the PHC, relevance for its implementation, as well as timeliness and scientific level. Their opinions are shown in Table 3. The opinion of the experts in favor of the applicability, feasibility and implementation of the actions and activities contained in the presented strategy, reached a greater descending percentage distribution in the categories of VA, QA and A. The need for the introduction of the strategy, as well as the topicality and scientific level, was 100,00 % very appropriate, which demonstrates the scientific nature of the proposal expressed.

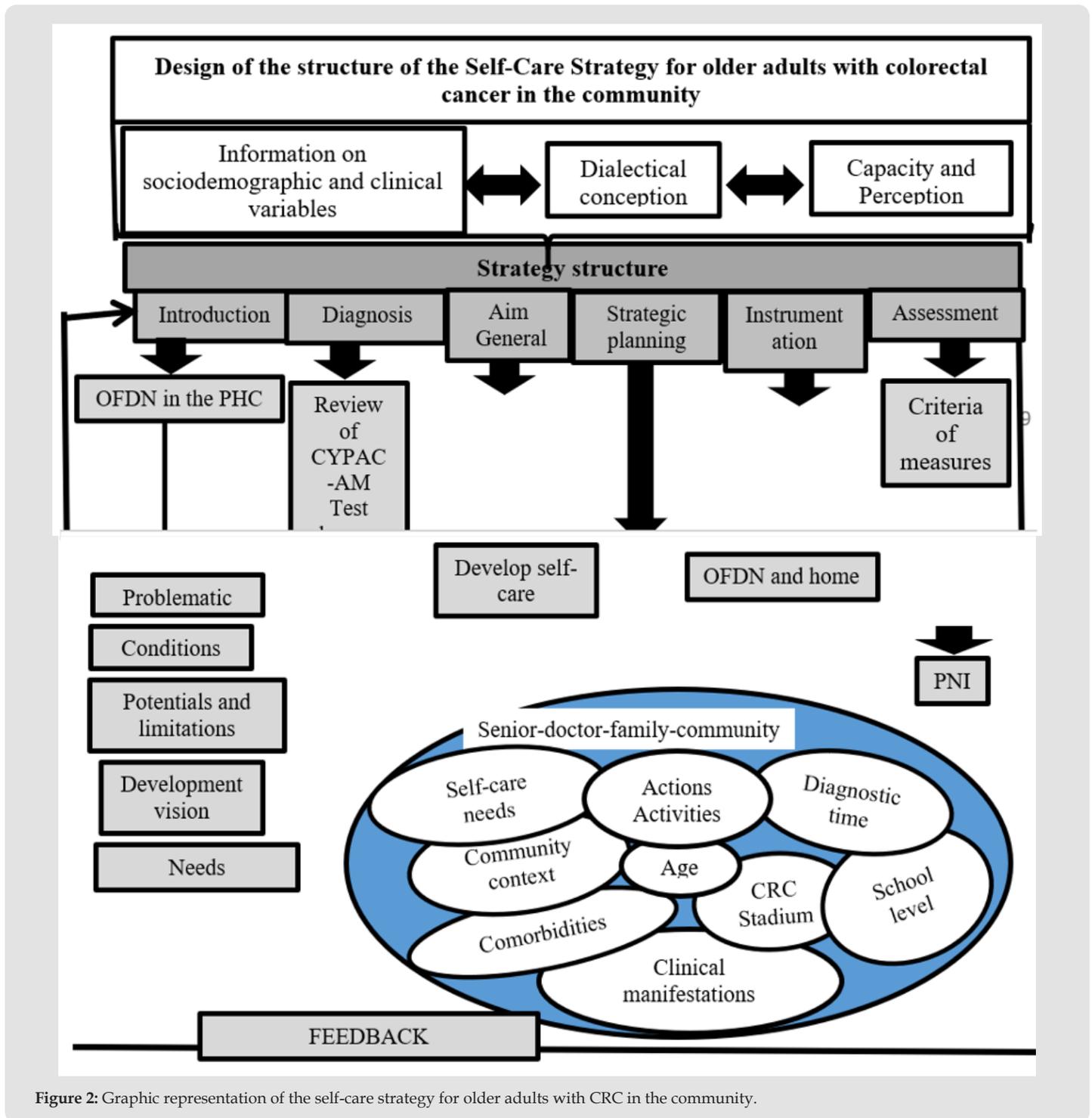


Figure 2: Graphic representation of the self-care strategy for older adults with CRC in the community.

**Table 2:** Characterization of the experts to evaluate the self-care strategy for older adults with colorectal cancer in the community. South Poly-clinic. Sancti Spiritus. 2019.

Professional Classification	N.º	%
CGM Specialist Physician	12	66,66
Medical Specialist in Geriatrics and Gerontology	2	11,11
Internal Medicine Specialist Physician	1	5,55
Nursing, PHC Specialist	1	5,55
Medical Specialist in Surgery	2	11,11
<b>Time of professional experience (Years)</b>		
5-9	5	27,77
≥ 10	13	72,22
<b>Time of experience as a specialist (Years)</b>		
5-9	3	16,66
≥ 10	15	83,33
<b>Category/Scientific Degree</b>		
Master of Science	16	88,88
Doctor of Science	2	11,11
<b>Teaching Category</b>		
Assistant	3	16,66
Assistant professor	13	72,22
Associate Professor	2	11,11

**Table 3:** Evaluation of the strategy according to expert criterio.

Actions and Activities	VA		QA		A		PA		NA		Total	
	N.º	%	N.º	%	N.º	%	N.º	%	N.º	%	N.º	%
Applicability in the PHC	11	61,11	5	27,77	2	11,11	0	0	0	0	18	100,00
Feasibility for its introduction in the PHC	13	72,22	4	22,22	1	5,55	0	0	0	0	18	100,00
Need for introduction	18	100	0	0	0	0	0	0	0	0	18	100,00
Relevance for your implementation	13	72,22	3	16,66	1	5,55	0	0	0	0	18	100,00
News and Scientific Level	18	100	0	0	0	0	0	0	0	0	18	100,00

Note: VA: Very appropriate; QA: Quite adequate; A: Adequate; PA: Poorly adequate; NA: Not adequate.

## Discussion

The documents that support the theoretical foundations of self-care of the elderly with CRC [22-24], have among their objectives to promote changes in lifestyle, habits and customs that favor the health of the elderly, which allows delaying the appearance of disabilities. Also to reduce mortality and increase survival.

The formulation of activities for the implementation of self-care in older adults with CRC is insufficient. These documents lack guidance from the CGM regarding the self-care of these patients. Sansó [25], explains that there are topics that should not be missing when referring to how the CGM specialist solves the main health problems they face. Purón, et al. [26] describe the community care program for the elderly as inadequate in the process components, related to promotional and preventive actions, among others. None of these studies addressed the lack of self-care for older adults with CRC in the com-

munity through specific activities to be developed by the CGM doctor, since they focus their actions on a single member of the team, it is a joint effort of the basic health team. (nurse-doctor). For the adequate development of self-care, it is necessary to train and train specialized personnel for the development of strategies.

The strategy constitutes one of the essential aspects in current scientific development. The explanation of social problems from a scientific conception is not conceivable without the application of strategies [27]. Bello, et al. [28] demonstrated the effectiveness in the application of an intervention strategy for self-care. But they do not cover older adults with CRC in the community, nor is it carried out by medical personnel. The current research does not match the design of this strategy. National studies conducted by Morales [13] and Higuera, et al. [14] implement strategies that address self-care in older adults with chronic diseases, but do not include those affect-

ed by CRC in the community. The authors of the current research believe it is feasible to develop methodological pathways in the form of a strategy that breaks down the specific activities to be carried out by the MGI doctor, regarding the self-care of older adults with CRC. The expert criteria for evaluating the strategy is pertinent as it constitutes an opportunity to improve the self-care strategy from the perspective of the proposed CGM. This allows obtaining and updating relevant information.

The opinion based on the experience of a group of specialists will be of higher quality compared to the opinion of a single researcher, as expressed by Alvarez, et al. [29]. The results achieved in the current study demonstrate content validity through expert criteria, agreeing with Gómez, et al. [30]. The use of experts in the context of health research is very useful for the validation of different strategies applied in certain groups to be studied [31]. Their opinions make it possible to implement intervention instruments that favor their success. Self-care of older adults with CRC in the community will be a health problem that will have to be addressed in a multidisciplinary manner as a social and scientific problem. As a scientific contribution, the designed strategy constitutes an opportunity for the development of self-care of older adults with CRC, which is addressed systemically through the dimensions of capacity and perception to achieve a relationship between the patient, doctor, family and community. The present study is not free of limitations since the design is aimed at only a specific group of patients with non-communicable diseases, the elderly with CRC in the community.

## Conclusion

With the strategy that is designed, it contains actions, activities, with possibilities of application in the context for which they were created, formulated in a clear and affordable way and with the use of the necessary resources to become a methodological work instrument for CGM doctors. in the PHC, which allows better monitoring and control of older adults with CRC.

## Conflict of Interests

The authors declare that does not exist an interest conflict.

## Authors' Contribution

- 1) **Conceptualization:** Belkis Alvarez Escobar
- 2) **Data Curation:** Belkis Alvarez Escobar, Juan Carlos Mirabal Requena, Tamara Lopez Betharte
- 3) **Formal Analysis:** Belkis Alvarez Escobar, Juan Carlos Mirabal Requena, Javier Cruz Rodríguez, Daysi Viera Hernández
- 4) **Acquisition of funds**
- 5) **Research:** Belkis Alvarez Escobar, Juan Carlos Mirabal Requena, José Alejandro Concepción Pacheco, Deyvis Luisa Bequer Palmer

6) **Methodology:** Belkis Alvarez Escobar, Juan Carlos Mirabal Requena, José Alejandro Concepción Pacheco, Javier Cruz Rodríguez, Daysi Viera Hernández

7) **Project Administration:** Belkis Alvarez Escobar.

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10) **Supervision:** José Alejandro Concepción Pacheco, Javier Cruz Rodríguez

11) **Validation**

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14) **Writing-Review and Editing:** Belkis Alvarez Escobar, Juan Carlos Mirabal Requena, José Alejandro Concepción Pacheco.

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