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Original article

Cardiovascular risk management in primary health care

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SUMMARY

High-quality primary healthcare is fundamental for the prevention of cardiovascular diseases, due to the opportunity it provides to assess risks and offer pharmacological and



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lifestyle interventions. The family physician is the key person for initiating, coordinating, and monitoring these diseases. To describe the level of professional performance of Family Medicine specialists in cardiovascular risk management, a cross-sectional descriptive study was conducted with 27 Family Medicine specialists providing medical care at the Family Medicine Clinics of the Ramón López Peña Teaching Polyclinic in Santiago de Cuba, from January to June 2024. These specialists agreed to participate in the research, which was carried out in a natural setting where they routinely practice. The variables used to characterize the study were professional performance and its dimensions: clinical care, communication, professional development, scientific research, and bioethics. Descriptive statistics (number and percentage) were used. The indicators showed that physicians do not master the clinical, communication, professional development, and scientific-research dimensions ($\geq 69\%$), while 100% of the cases demonstrate mastery of the bioethical dimension. The final analysis of this instrument showed that the variable obtained a value of 28.4%, which, according to the decision table, is not mastered. The reviewed documents corroborate that the dimensions repeatedly show a high level of impairment, with the exception of bioethics. Few strategies have been developed to address this, hence the skills gap among primary care professionals.

Keywords: Performance Family medicine; Clinical competence; Bioethics; Primary health care.

ABSTRACT

High-quality primary health care is essential for the prevention of cardiovascular diseases, due to the opportunity to assess risks and provide pharmacological and lifestyle interventions. The family physician is the key person to initiate, coordinate, and follow up these conditions. With the aim of describing the level of professional performance of specialists in Comprehensive General Medicine in the care of cardiovascular risk, a cross-sectional descriptive study was conducted with 27 specialists in Comprehensive General



Medicine who provided medical care at the Family Doctors' Offices of the Ramón López Peña Teaching Polyclinic in Santiago de Cuba, between January and June 2024, and who agreed to participate in the research, in a natural context where daily practice takes place. The characterization variable used was professional performance and its care, communication, professional development, scientific-research, and bioethical dimensions. Descriptive statistical techniques (number and percentage) were used. The indicators showed that physicians do not master the care, communication, professional development, and scientific-research dimensions ($\geq 69\%$), while 100% of the cases mastered the bioethical dimension. The final analysis of this instrument showed that the variable obtained a value of 28.4 %, qualifying in the decision table as not mastered. The reviewed documents confirmed that these dimensions repeatedly show a high level of affectation, except for bioethics. Few strategies have been established to solve this situation, leading to a gap in competencies among professionals at the first level of care.

Keywords: Performance; family medicine; Clinical competence; Bioethics; Primary Health Care.

SUMMARY

Primary health care of high quality is essential for the prevention of cardiovascular diseases, due to the opportunity to evaluate the risks and provide pharmacological and lifestyle interventions. The family doctor is the person in charge to initiate, coordinate and carry out the accompaniment of these tasks. With the objective of reducing the level of professional performance of specialists in Comprehensive General Medicine in cardiovascular care, a cross-sectional descriptive study was carried out with 27 specialists in Comprehensive General Medicine who provide medical assistance in the Family Doctor's Offices of the Ramón López Peña teaching polyclinic, in Santiago de Cuba, in the period from January to June. of 2024, which will allow us to participate in research in a natural context where the field of action unfolds daily. It is used as a characterization variable: professional



performance and its dimensions of assistance, communication, professional training, scientific-research and bioethics. Employ descriptive statistics techniques (percentage number). The indicators will show that doctors do not dominate the healthcare, communication, training and scientific-investigative dimensions ($\geq 69\%$), while 100% in two cases dominate the bioethical dimension. The final analysis of this instrument showed that the variable obtained a value of 28.4%, classifying it in the decision table as not dominating. The reviewed documents corroborate that these dimensions, repeatedly, present a high level of involvement, except for bioethics. For your solution, few strategies have been drawn up, evidencing a gap in competition between the professionals at the first level of attention.

Key words: Performance; family medicine; Clinical competence; Bioethics; Primary Health Care.

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Introduction

The determination of global cardiovascular risk (CCR) refers to the estimation of the probability that an individual will experience a fatal or non-fatal cardiovascular event within a specific time period, generally five or ten years. Several scales exist for this purpose. (1) The stratification of cardiovascular risk using scales is a fundamental pillar for therapeutic decision-making at the primary care level, and its determination constitutes the cornerstone for establishing prevention policies for atherosclerotic cardiovascular diseases (ASCVD). (2)



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Over time, knowledge about how best to measure and respond to risk has evolved. In the past, individual risk factors were measured and managed in isolation. But this approach has been replaced by risk scales that calculate total risk based on a range of factors. The integration of risk calculators into administrative software packages, as well as their availability on the internet, has increased their accessibility for primary care physicians. (3) The information provided by risk stratification scales has different uses. Ideally, it should not influence the prescription of lifestyle-related preventive measures that should be recommended to all individuals regardless of their short- or long-term risk. However, as discussed in other articles, (4,5) it does contribute to deciding the appropriateness and intensity of pharmacological treatment and the target values for measurable variables such as blood pressure or plasma lipids.

The family physician is the key person to initiate, coordinate, and monitor CVD prevention. Primary care has a unique role in identifying individuals with high cardiovascular risk factors (CCR) and deciding which interventions are most appropriate for them, bearing in mind that CVD prevention must be multidisciplinary and well-coordinated between levels of care. (6) In Cuba in 2021 the guide for diagnosis, treatment and follow-up of HTA was updated, (7) where special emphasis has been placed on the RCG, the objective is to effectively control the risk factors and reduce the morbidity and mortality of these diseases.

To achieve this goal, it will be necessary to increase the number of professionals with the necessary skills, as well as to increase interventions to prevent, diagnose, treat, and manage high-risk cases at the primary healthcare level. (8) From the above, it is clear that it is important to deepen and promote the management of this condition in order to consolidate theoretical knowledge acquired during undergraduate and postgraduate studies.

The level of development achieved in Cuban public health, as well as the political will to increase the demands on the training and professional development of its personnel, guarantees an important path to raise the quality of services in the system by improving the performance of the profession. (9)



Professional performance is a pedagogical process developed by an individual through social relationships established in the application of methods for fulfilling their work content, in accordance with the objectives of the professional activity in which they participate and the achievement of a result that demonstrates the professional, institutional and social improvement attained; attention to the education of their work competence and full communication and individual satisfaction when performing their tasks with care, precision, accuracy, depth, originality and speed. (10)

In light of the above ideas, the professional performance of the MGI specialist encompasses a wide range of skills, values, and habits that, when expressed in the care of patients with cardiovascular risk, take on ethical and social significance.

The objective of this research is to Describe the level of professional performance of the specialist in Comprehensive General Medicine in the care of cardiovascular risk.

Methods

A cross-sectional descriptive study was conducted with 27 specialists in Comprehensive General Medicine (MGI), who provided medical assistance in the Family Medical Offices (CMF) of the Ramón López Peña teaching polyclinic in Santiago de Cuba, during the period from January to June 2024, who agreed to participate in the research, in a natural context where the field of action is developed on a daily basis.

No sample size was calculated because the study involved all specialists in the aforementioned health area.

Theoretical methods were applied:

Historical-logical, analytical-synthetic and inductive-deductive: for the analysis of theoretical concepts, the progression in the treatment of the topic and the foundation of the research.

Empirical methods: document review.



The authors defined the single variable as: professional performance: Understood as a pedagogical process developed by a subject through social relationships established in the application of methods for the fulfillment of their work content, in accordance with the objectives of the professional activity in which they participate and the achievement of a result that demonstrates the professional, institutional and social improvement achieved. (10)

The dimensions and indicators to be evaluated were the following:

- Clinical dimension: understood as the ability to demonstrate mastery of knowledge for the comprehensive care of patients at cardiovascular risk, and to apply the clinical-epidemiological method when assessing the patient's cardiovascular status. Four sub-indicators

- Thorough questioning to identify cardiovascular risk factors
- Complete physical examination, including waist circumference, pulse pressure, and fundus examination
- Indication for laboratory tests (glucose, cholesterol, triglycerides, electrocardiogram, microalbuminuria)
- It stratifies cardiovascular risk
- Appropriate treatment according to cardiovascular risk
- Interconsultation with related specialties for high-risk cardiovascular patients
- Patient monitoring according to cardiovascular risk

- Communication dimension: understood as the knowledge, skills, attitudes and values for adequate communication with the individual, family, community and other health professionals, which guarantees the obtaining and transmission of the necessary information.

- Guidance regarding the identified risk factors
- Guidance regarding cardiovascular risk
- Guidance regarding patient follow-up

- Professional Development Dimension: This dimension reflects the level of expertise in topics related to cardiovascular risk. This is closely linked to the teaching role, specifically the responsible approach to workplace education, through ongoing and continuous professional development.

- Participate in specialized conferences related to the topic
- Participate in workshops offered
- Participate in courses and training

- Scientific-Investigative Dimension: This dimension reflects the professional's investigative skills. It refers to the frequency with which they participate in scientific activities and demonstrate the ability to apply the scientific method as a tool for identifying, analyzing, and solving problems inherent to their professional practice. It relates to the scientific-investigative function of the medical specialist, as it constitutes a means of addressing health problems.

- Publishes scientific articles
- He has supervised scientific research
- He participates in scientific events as a speaker to share his results.

- Bioethical dimension: It expressed the preparation of the specialist in Comprehensive General Medicine to assume the ethical principles and moral values in social and

professional life; as well as the compliance with laws and norms, which allow him to interact with the basic health team, patients and family members.

- The medical records were well protected, guaranteeing the confidentiality and privacy of the information
- Access only for basic health team

To evaluate the data obtained, a guide for documentary review was applied, which allowed the assessment, through different documents, of the behavior of the MGI performance in the care of the patient with cardiovascular risk, in different activities and work contexts such as: assistance activity in the family doctor and nurse's office; review of the analysis of the health situation of the office and the health area; and review of the improvement plans of the teaching department of the Ramón López Peña teaching Polyclinic.

In addition, a total of 1111 individual medical records (IMRs) were reviewed. These records were selected from the hypertensive population, and the formula for finite samples was used to calculate the minimum sample size. Once the sample size was calculated, stratified proportional random sampling was used, which determined the number of medical records needed per clinic. The total number of records required for each clinic matched the minimum sample size calculation.

To evaluate the data obtained, the following rating scale was applied:

Care dimension, communication and bioethics.

1. Mastery. (D) If it was considered that there was full mastery of the skill that the indicator demonstrates.
2. Partial mastery (PM). If it was considered that there was partial mastery of the skill that the indicator demonstrates
3. Not mastered (ND). If it was considered that there was no mastery of the skill that the indicator demonstrates.

Dimensions of improvement and scientific-investigative

- Always (S). When the activity was performed regularly.
- Sometimes (AV). When the activity was performed sporadically
- Never (N). When the activity was not performed

The comprehensive assessment scale was determined with the following ranges shown below:

D and S, in the rational interval of $100\% \leq x \leq 90\%$

DP and AV, in the rational interval of $89\% \leq x \leq 70\%$

ND and N, in the rational interval of $\leq 69\%$

The values of the intervals used were averaged, allowing the results of the different scales to be grouped for subsequent analysis, comparison, and conclusions. To quantify the qualitative results, a specific interval was assigned to each one. The weighting coefficient was assigned according to personal criteria, although the logic of the procedure was followed.

Once the information was collected, it was processed using a Core i3 personal computer. A database was created in SPSS 11.5 for Windows to facilitate data analysis. Microsoft Word 2016 and Microsoft Excel 2016 were also used. Absolute numbers and percentages were used as summary measures for data analysis.

In this research, the data obtained were used for scientific purposes and followed the principles and recommendations for physicians in biomedical research involving human subjects. Informed consent was obtained from the professionals involved, and the research was approved by the institution's Research Ethics Committee and Scientific Council.

Results



In the review of individual medical records, the criteria related to the care dimension were not dominant, the most representative being the stratification of cardiovascular risk, the interconsultation with related specialties for patients at high cardiovascular risk, treatment and adequate follow-up according to cardiovascular risk with 17.1% respectively (table 1).

Table 1. Assessment of the care dimension.

Criteria	Indicator		Standard	Assessment
	No.	%	%	
Thorough questioning to identify cardiovascular risk factors	210	18.9	≥ 69	ND
Complete physical examination, including waist circumference, pulse pressure, and fundus examination	200	18.0	≥ 69	ND
Indication for laboratory tests (glucose, cholesterol, triglycerides, electrocardiogram, microalbuminuria)	200	18.0	≥ 69	ND
It stratifies cardiovascular risk	190	17.1	≥ 69	ND
Appropriate treatment according to cardiovascular risk	190	17.1	≥ 69	ND
Interconsultation with related specialties for high-risk cardiovascular patients	190	17.1	≥ 69	ND
Patient monitoring according to cardiovascular risk	190	17.1	≥ 69	ND

Legend: ND (Not dominant)

Source: Individual Medical Record

Regarding communication, 270 medical records (24.3%) showed adequate patient orientation. The overall result for this dimension was "Not dominant" (ND) (Table 2).

Table 2. Assessment of the communication dimension.

Criteria	Indicator		Standard	Assessment
	No.	%	%	
Guidance regarding the identified risk factors	270	24.3	≥ 69	ND
Guidance regarding cardiovascular risk	270	24.3	≥ 69	ND
Guidance regarding monitoring	270	24.3	≥ 69	ND

Legend: ND (Not dominant)

Source: Individual Medical Record

From the analysis of the improvement dimension, from the evidence shown in the teaching department, 15 doctors (55.5%) had never participated in specialized conferences related to the topic, in workshops, courses and training (table 3).

Table 3. Assessment of the overcoming dimension.

Criteria	Frequency					
	Never		Sometimes		Always	
	No.	%	No.	%	No.	%
Participation in specialized conferences related to cardiovascular risk management	15	55.5	7	25.9	5	18.5
Participation in workshops	15	55.5	7	25.9	5	18.5
Participation in courses and training	15	55.5	7	25.9	5	18.5

Source: Documents from the institution's teaching department

When analyzing the scientific-investigative dimension, the 27 professionals surveyed (100%) do not publish scientific articles, have not supervised or carried out oppositions of scientific research related to the topic, nor is it analyzed in the Health Situation Analysis. (table 4).

Table 4. Assessment of the scientific-investigative dimension.

Criteria	Frequency					
	Never		Sometimes		Always	
	No.	%	No.	%	No.	%
Publishes scientific articles	27	100	0	0	0	0
He has supervised scientific research	27	100	0	0	0	0
He has conducted research oppositions	27	100	0	0	0	0
Cardiovascular risk analysis in the Health Situation Analysis	27	100	0	0	0	0
He participates in scientific events as a speaker to share his results.	15	55.5	7	25.9	5	18.5

The bioethical dimension was not affected, as 100% of the medical records were well protected, guaranteeing the confidentiality and privacy of the information contained therein, with access only to the basic health team.

The final analysis of this instrument shows us that the variable obtains a value of 28.4% and qualifies in the decision table as not dominant (ND).

Discussion

According to Girwar et al., (11) predictions of health outcomes through risk stratification can be used to tailor proactive clinical care, implement preventive measures, restructure healthcare, and improve information for healthcare professionals. In the long term, this approach will help improve the quality of care and reduce costs.

Volker et al., (12) recommend that primary prevention of CVD should be based on the assessment and treatment of CGR, but there is evidence of gaps in research practice, with inconsistencies in the use of risk assessment tools and guidelines, advice on lifestyle interventions and prescription of preventive medicines.

The authors of this work share the view of Jansen et al., (13) that while these deficits are likely due to many factors, including challenges in managing diverse patient populations and variability in patient motivation, more detailed data on why this occurs at the healthcare provider level are limited, making it difficult to develop practical strategies to improve their diagnosis and prevention.

These results differ from those found by Gupta et al., (14) in which the majority of physicians (74%) performed the CGR assessment annually in eligible patients. These discrepancies may be due to the fact that it was not until 2017, in the Cuban Guide for the Diagnosis, Evaluation, and Treatment of Arterial Hypertension, (15) that emphasis was first placed on the CGR assessment.

A systematic review by Ju et al. (16) captured a wide range of perspectives from primary care physicians in different settings, including attitudes related to various cardiovascular disease prevention strategies. However, some potential limitations existed. It was not possible to differentiate whether family physicians used an absolute risk assessment or an



individual risk factor approach, and whether perspectives differed in primary and secondary prevention, as these were not specified in most studies. Cuban research was not included in the results.

Although cardiovascular prediction guidelines are recommended for assessing cardiovascular risk, some studies (17,18) have shown their limited use by physicians in primary healthcare. In Cuba, the review conducted found few studies on cardiovascular risk assessment in this context.

The authors of the present study agree with Fernández et al., (19) in stating that the need for preparation of professionals working in primary care points to the fact that the knowledge possessed by family doctors had been acquired during their training, and that they have a low perception of the need to prevent diseases, since it is a reality today that professional training models have been permeated by a predominantly curative approach. The authors of this work agree with the criterion of German et al., (20) that primary health care professionals, a field focused on the practice of primordial, primary and secondary prevention of all cardiovascular diseases, must assume a leading role in optimizing care, while promoting a healthy lifestyle.

In the opinion of these authors, a radical reform is needed to improve the performance of primary care specialists, and to ensure they are well equipped to fill the gap while remaining at the forefront of cardiovascular disease care.

The main limitations of this study are that the number of reference sources for comparison was very small, and the few studies consulted only determined the level of knowledge regarding cardiovascular risk factors. Furthermore, the only assessment tool used was document review, so there was no triangulation of results.

Conclusions



The reviewed documents confirm that all dimensions are significantly affected, with the exception of bioethics. Few strategies have been developed to address these issues, hence the lack of skills among primary care professionals.

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Conflict of interest

The authors declare that there are no conflicts of interest related to the study.

Authorship contribution

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