

Original article

Management strategy of the university extension in the universities of medical sciences

Estrategia gestión de la extensión universitaria en las universidades de ciencias médicas

Estratégia de gestão da extensão universitária nas universidades de ciências médicas

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ABSTRACT

University extension, given its importance and complexity, must be framed in its corresponding expression within strategic planning, both at the level of the Higher Medical Education system, as well as that of the institutions themselves and their structures. It is proposed to design a strategy that allows the application of an extension management model in the Universities of medical sciences. The structural systemic and modeling method was used for the elaboration of the proposed model. Group interviews and brainstorming were carried out, which allowed obtaining and analyzing the external and internal forces that facilitated the identification of positive and negative elements, inside and outside the system of Health-related management and extension process in universities of medical sciences, the SWOT matrix was applied to obtain an overview of the strategic situation. The strategy developed, as it corresponds to the university extension management model designed in the Universities of medical sciences integrated into the health system, contributes to the improvement of this process on solid theoretical bases and with a strong scientific foundation. The determination of the strategic actions for the implementation of the proposed model, determines the essential patterns to establish the conditions, which in the order of communication, the coordination between the different levels and the creation of a favorable climate, among others, lays the foundations. For a new vision of the management of the extension, process in the Universities of medical sciences.

Keywords: extension; medical sciences; health promotion; SWOT; university.

RESUMEN

La extensión universitaria, dada su importancia y complejidad, debe enmarcarse en su correspondiente expresión dentro de la planeación estratégica, tanto a nivel del sistema de la Educación Médica Superior, como al de las propias instituciones y sus estructuras. Se propone diseñar una estrategia que permita la aplicación de un modelo de gestión de la extensión en las universidades de ciencias médicas. Se utilizó el método de modelación y sistémico-estructural para la elaboración del modelo propuesto. Se realizaron entrevistas grupales y lluvias de ideas, que permitieron obtener y analizar las fuerzas externas e internas que facilitaron identificar los elementos positivos y negativos, dentro y fuera del sistema de salud, relacionados con la gestión y el proceso de extensión en las universidades de ciencias médicas; se aplicó la matriz DAFO para obtener una perspectiva general de la situación estratégica. La estrategia elaborada, al corresponderse con el modelo de gestión de la extensión universitaria diseñado en las universidades de ciencias médicas integrada al sistema de salud, contribuye al perfeccionamiento de este proceso sobre sólidas bases teóricas y con fuerte fundamento científico. La determinación de las acciones estratégicas para la implementación del modelo propuesto fija los patrones esenciales para establecer las condiciones que, en el orden de la comunicación, la coordinación entre los diferentes niveles y la creación de un clima favorable, entre otras, sienta las bases para una nueva visión de la gestión del proceso extensionista en las universidades de ciencias médicas.

Palabras clave: extensión; ciencias médicas; promoción de Salud; DAFO; universidad.

RESUMO

A extensão universitária, dada a sua importância e complexidade, deve enquadrar-se na sua correspondente expressão no planeamento estratégico, tanto ao nível do sistema de Ensino Superior Médico, como das próprias instituições e suas estruturas. Propõe-se desenhar uma estratégia que permita a aplicação de um modelo de gestão de extensão nas universidades de ciências médicas. A modelagem e o método sistémico-estrutural foram utilizados para a elaboração do modelo proposto. Foram realizadas entrevistas em grupo e brainstorming, que permitiram obter e analisar as forças externas e internas que facilitaram a identificação de elementos positivos e negativos, dentro e fora do sistema de saúde, relacionados ao processo de gestão e extensão nas universidades de ciências. a matriz SWOT foi aplicada para obter uma visão geral da situação estratégica. A estratégia desenvolvida, por corresponder ao modelo de gestão da extensão universitária desenhado nas universidades de ciências médicas integradas ao sistema de saúde, contribui para o aprimoramento desse processo em bases teóricas sólidas e com forte embasamento científico. A determinação das ações estratégicas para a implementação do modelo proposto estabelece os padrões essenciais para estabelecer as condições que, na ordem da comunicação, coordenação entre os diferentes níveis e a criação de um clima favorável, entre outras, lançam as bases para A nova visão da gestão do processo de extensão nas universidades de ciências médicas.

Palavras-chave: extensão; Ciências Médicas; Promoção de saúde; SWOT; escola Superior.

INTRODUCTION

The world moves in uncertain political, social, technological, economic and cultural scenarios. In this context, educational processes acquire importance and strong implications for the future and, in particular, Higher Education constitutes a space that concentrates and at the same time reflects the multiple facets of social development.

There have been multiple investigations that in recent years have provided a significant theoretical reference to those who strive to find, in their daily activity, the most successful ways to ensure that university management moves towards higher stages in the qualitative order and alternatively transforming our systematic practice, where the harmonious integration of the administrative and technological foundations becomes the driving force of the process that allows us to move towards university excellence (Tünnermann, 2008ab; Cedeño, 2012; González and Batista, 2017).

The university extension, given its importance and complexity, must be framed in a strategic perspective and in its corresponding expression within the strategic planning, both at the level of the la Educación Médica Superior system, as well as that of the institutions themselves and their structures (Jaya, *et al.*, 2017; González and Batista, 2017; Kochhann, *et al.*, 2018).

That is why, in Cuba, the Ministry of Public Health, which is in charge of training health professionals, has been making numerous efforts in this field, given the priority and need to plan it (university extension) strategically related by the high estimation assumed by extension in each of the university projects. However, the results have not yet reached the level of current health demands and needs (Veliz, *et al.*, 2011; Veliz, *et al.*, 2015).

An extension process is necessary in the universities of medical sciences integrated into the health system, which with the tools of health promotion and its bidirectional link with the community, achieves the empowerment of individuals, families and communities so that they consciously modify their lifestyles in a favorable way and that they get in the students the necessary motivation towards teaching and research, modeling their modes of action, but in an effective, efficient and effective way.

The objective is then: to develop a strategy that allows the application of an extension management model in the universities of medical sciences.

MATERIALS AND METHODS

By using the modeling method, it was possible to build an extension management model for the universities of medical sciences, and by using the structural systemic method, the general orientation for the design and foundation of the proposal was allowed, by propitiating the determination of the components of the model and its principles through the relationships that make it up. In addition, it made it possible to determine the structure that the model acquires in the management model itself.

In addition, analysis-synthesis and induction-deduction were used, which contributed to the selection of the system of actions that support the proposed strategy and, in general, contributed to the elaboration of the theoretical foundation of the research.

Group interviews and brainstorming were carried out, which allowed obtaining and analyzing the external and internal forces that facilitated the identification of the positive and negative elements inside and

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outside the health system, related to the management and the extension process in the universities of medical sciences.

With the objective of developing actions to develop strengths, reduce weaknesses, locate and take advantage of opportunities and reduce or avoid threats, the SWOT matrix was applied, which is a tool that can be considered simple and that allows obtaining a general perspective of the strategic situation of a certain organization.

The strategy designed for the implementation of the extension management model for medical universities was designed based on the results obtained at the University of Medical Sciences of Pinar del Río in 2015. Currently, its implementation continues in the Faculty of Medical Sciences "Calixto García" and is being extended to the rest of the faculties of the University of Medical Sciences of Havana.

RESULTS

For the elaboration of the proposed model of management of the university extension process in the universities of medical sciences, some ideas were developed that facilitated its understanding and facilitated its argumentation (Veliz *et al.*, 2015).

First idea: the management model of the university extension process in the medical sciences universities has inputs that, according to the functions of the structures and processes, become outputs.

Second idea: the management of the university extension process from the universities of medical sciences, articulated to the health system, is developed in two dimensions: the administrative dimension and that of health promotion, as the content of university extension in said universities.

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medical sciences, the clinical-epidemiological method contributes to the analysis of the health situation to identify the main health problems, as a basis for the extension projects that plan students, teachers and workers, thus impacting with this process the health system, community; becoming this part of the training process of medical science students.

Fourth idea: the universities of medical sciences are the governing center for the management of university extension in its direct link with the Provincial Health Directorate, through the analysis of the health situation, both in Primary and Secondary Health Care with its structures and functions to guarantee the inputs and outputs of the process.

Fifth idea: the relations of the model of the management process of the university extension in the universities of medical sciences are based on the principles: intersectoriality, integrality of the system, social and community participation, creativity and contextualized.

The assessment of each of these ideas allowed us to gradually understand the complexity of the model of the extension process in the universities of medical sciences, which is shown in Figure 1.



Fig. 1- Management model of the extension process in the universities of medical sciences.

The external and internal forces that predominate in the studied system were determined.

Strengths

- Human Resources prepared to join the management of extension in medical universities throughout the health system.
- There is an organized health system that allows the introduction of the management model of the university extension of medical sciences.
- It is located within the health system, which facilitates the two-way link with the beneficiaries and with the community in general.
- The health problems in the province have been identified, which are perfected annually through the analysis of the health situation that is carried out throughout the Health System.
- Work objectives of the Ministry of Public Health defined.
- necessary infotechnological supports.

Opportunities:

- Intersectorality is a principle that sustains the model and currently the government and the authorities of the country and the province facilitate the execution of this principle.
- Support from political and mass organizations.
- Disposition of the extra-university community for the modification in a favorable sense of lifestyles.

Weaknesses:

- The lack of preparation of the members of the intra- and extra-university community to modify the management of the extension process in the universities of medical sciences.

- Lack of monitoring, evaluation and control in the management of the university extension process in the medical sciences universities.
- The management of the university extension process in the medical sciences universities is atomized and non-systemic.
- The management of the university extension process in the universities of medical sciences does not impact the health system or the community, because health promotion is not currently its objective.
- It is not articulated with the other university processes.

threats

- Increase in communicable diseases (sexually transmitted diseases, tuberculosis, cholera, dengue and more) and chronic non-communicable diseases (cardio and cerebrovascular diseases, diabetes, cancer) (Ministry of Public Health. Health Yearbook. 2019).
- Increase in inadequate lifestyles in general.
- Climate change.
- Reemergence of a group of diseases.

The analysis of the external and internal forces imposes the elaboration of a strategy that implements the extension management model in the universities of medical sciences.

Strategy Mission

Develop a management model for university extension in the universities of medical sciences integrated into the health system, which contributes to the efficiency, efficacy, effectiveness and relevance of this process, leading to an increase in the quality of the health professional, modification in a favorable sense of the lifestyles and the quality of life of the intra- and extra-university community.

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Vision

The university of medical sciences will be a more pertinent and strengthened institution, responding to the challenges of the 21st century universities.

Problem

How to conceive a strategy to implement the management model of the university extension in the Universities of Medical Sciences, as a systemic process structured in a complex of planned influences of a scientific, teaching and extension nature that contributes to the increase in the quality of the professional and the modification in a favorable sense of the lifestyles of the intra- and extra-university community?

Strategy Objective

Implement a management model for university extension in medical sciences universities from a comprehensive approach throughout the health system, which is efficient, effective, effective and pertinent, which leads to an increase in the quality of professional performance, modes of action and the modification in a favorable direction of the lifestyles of the intra and extra-university community.

Strategic actions determined from the SWOT matrix

The extension in the universities of medical sciences is a process that must be pertinent and strategies must be drawn up that respond to said need, which will allow the adoption of the health culture and the adequate planning of the resources that extension management demands in the universities of medical sciences.

Organizing, creating and guiding possible forms for the management of extension in the universities of medical sciences constitute elements of this research, whose

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fundamental bases are in the management of the extension in the universities of medical sciences within the health system that impacts the intra- and extra-university community.

The actions of the strategy are shown through the following strategic analysis (table 1), aimed at the management of extension in the universities of medical sciences.

Table 1- Strategic analysis

Matriz DAFO		EXTERNOS	
		OPORTUNIDADES	AMENAZAS
I N T E R N O S	F O R T A L I Z A S	Identificación de las necesidades de la gestión de la extensión en los diferentes niveles de la Universidad de Ciencias Médicas y el sistema de salud. (F+O)	Capacitación de la comunidad intra y extrauniversitaria en la extensión y la gestión de este proceso en la Universidad de Ciencias Médicas dentro del sistema de salud. (F+A)
	D E B I L I D A D E S	Desarrollo de nuevas estructuras y procesos administrativos que propone el modelo de gestión de la extensión en la Universidad de Ciencias Médicas integrado al sistema de salud. (D+O)	Promoción en diferentes espacios del extensionismo y la gestión de este proceso en la Universidad de Ciencias Médicas dentro del sistema de salud. (D+A)

A summary of the development of the strategic actions is shown in table 2.

Table 2 - Proposed strategy for the implementation of the extension management model in the universities of medical sciences

Strategic actions	Operations	Indicators
1. Identification of the needs of extension management at the different levels of the university of medical sciences and the health system.	1. Diagnose the situation of the extension process of the University of Medical Sciences at different levels. 2. Know the main problems that arise in the management of the extension process in the university of medical sciences integrated into the health system. 3. Evaluation of those in charge of directing the management of extension in the university of medical sciences at different levels.	Level of knowledge of the need for change in extension management at the university of medical sciences integrated into the health system.

<p>2. Training of the intra- and extra-university community in the extension and management of this process in the university of medical sciences within the health system.</p>	<ol style="list-style-type: none"> 1. Include the subject of Health Promotion within the curriculum of the medical sciences careers 2. Establish la PromociónHealth as a curricular strategy in medical science careers. 3. Execute a training program for the intra- and extra-university community about the extension and management of this process in the medical university within the health system and the methodology of health promotion. 	<p>Level of knowledge of the intra- and extra-university community Impact level of the qualification of the intra- and extra-university community in the extension and management of this process in the university of medical sciences integrated into the health system.</p>
<ol style="list-style-type: none"> 1. Development of new structures and administrative processes proposed by the management model of the university extension in the university of medical sciences integrated to the health system. 	<ol style="list-style-type: none"> 1. Develop the premises derived from the objectives and that will contribute to the creation of a favorable climate for the development of extension management in the University of Medical Sciences and an adequate assessment of the real potential of each group. 2. Ensure full correspondence between the aforementioned objectives and the organizational forms that are decided to be adopted based on the stated purposes. 3. Design control, evaluation and monitoring mechanisms for the different organizational forms adopted. 4. Ensure that the management structure is adapted to the execution of the planned actions, promoting the combination of the formal with the matrix and the committee structure. 	<p>Increase in the quality of the extension process in the university of medical sciences integrated into the health system.</p>

	<ol style="list-style-type: none"> 5. Control, systematically, through the mechanisms derived from strategic planning and management by objectives or through specific evaluation designs, if the actions that are carried out produce results in the development of the extensionist process. 	
<ol style="list-style-type: none"> 1. Promotion in different spaces of extensionism and the management of this process in the university of medical sciences integrated into the health system. 	<ol style="list-style-type: none"> 1. Create different spaces throughout the health system where the different problems faced by the intra- and extra-university community and the way in which they are solved are disclosed. 2. Manage and disseminate, through the different media, the extension activities of the University of Medical Sciences integrated into the health system. 3. Develop a website that compiles the extension activities and the management of this process in 	<p>Level of knowledge of extensionism and the management of this process in the universities of medical sciences within the health system.</p> <p>Increase in the motivation of the intra- and extra-university community towards extension activities</p>

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	<p>the university of medical sciences integrated into the health system.</p> <p>4. Create a favorable climate in the entire intra- and extra-university community that motivates them towards the execution of extension activities.</p>	
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the quality of life of the intra- and extra-university community and modify positively the modes of action of the health professional (Veliz *et al.*, 2015).

The detailed analysis above, related to university extension and its management for medical sciences universities, allows us to conceive the management of university extension in medical sciences universities as:

DISCUSSION

Taking into account the analysis carried out in the elaboration of the proposed model and starting from the works developed by Rojas *et al.* (2018) and Batista and González (2019), it can be stated that the university extension in the universities of medical sciences, as in the other centers of Higher Education, is carried out inside and outside the University, it is oriented to the intra and extra-university community, but it has its differences, as discussed above. The university extension in the universities of medical sciences, in addition, must start from the health system-university-community link, strengthens the modes of action of the health professional and has the purpose of promoting healthy lifestyles (Veliz, *et al.*, 2015).

Therefore, for the universities of medical sciences it is understood that the university extension:

It is the university training process that, in its close relationship with the health system and the community, based on the clinical, epidemiological and social method, aims to promote healthy lifestyles that increase

System of health promotion actions that are planned, organized, executed and controlled to achieve the objectives of the university extension process in the universities of medical sciences integrated into the health system, based on the clinical-epidemiological and social method, using the analysis of the health situation as a tool, that facilitates the members of the intra- and extra-university community, in an efficient, efficient and effective way, the exchange of knowledge and increase their health cultural heritage so that they consciously positively modify healthy lifestyles and perfect modes of action of the professional. (Veliz *et al.*, 2015).

It is considered health promotion management because in this process the means are activated to ensure that the extension process works properly in full accordance with its characteristics as a function, its components and relationships as a training process, allowing it to be executed efficiently, efficient and effective. In this way, in the management of extension in medical sciences universities, the link between management functions and the principles and methods of health promotion guarantees that the extension process in medical sciences universities is structured in a coherent manner within the health system itself and is adapted to a methodology that allows it to act in accordance with its peculiarities, allowing the management of this process to have its own identity.

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It is through these processes of social learning that the universities of medical sciences integrated into the health system are capable of internalizing, appropriating and using knowledge as factors of growth and progress in society. And it is on the basis of this "socialized knowledge" that organizations and social institutions can respond to the opportunities and challenges that the new environment offers.

In this way, the university extension in the universities of medical sciences defines its most significant goal in the social appropriation of knowledge, and takes on full meaning, being formulated and implemented as proposals for social intervention advocating changes and transformations, both within the university of medical sciences and the health system as well as in the conditions of growth and social development.

There is no doubt that the University must attend to the aspirations of the society to which it owes itself and that, as the institution with the highest educational level, it bears the greatest responsibility in the discernment of knowledge. Therefore, the extension in the universities of medical sciences integrated to the health system must promote health, and at the same time, provide solutions to the problems of the community in the area of influence of the University and at the same time must provide technical advice, stimulate and consolidate the talent and the creative and reasoning capacity of the population, in order to guarantee their active and conscious participation in the development process of society.

Development of strategic actions

Strategic action 1. Identification of the needs of university extension management at the different levels of the University of Medical Sciences and the health system.

The identification of the needs in this process is executed through the diagnosis that is carried out at the different levels of the University Medical Sciences and the health system, in relation to the management of the extension; this will take place in three phases and will be carried out by the members of each of the groups involved.

1. Diagnose the situation of the extension process at different levels, based on:

- Compliance with the Educational Work Project defined by the University of Medical Sciences and the Provincial Directorate of Health.
- Relevance and quality of the extension process that is executed.
- Impact of the extensionist process in the integral formation of the health professional (with emphasis on its incidence in the development of the axiological capacities that are intended to be formed from the model of the health professional) and in the own formation and development of the remaining members of the university and extra-university community.

This phase of the diagnosis can be fulfilled through the application of a set of instruments that allow the evaluation of these three parameters, such as: interviews with directors, professors, workers, students and key entities for the actions of the extension management in the universities of medical sciences and review of documents.

Here special attention is paid to the assessment of the reports of the evaluation of the objectives at each level and the evaluation of the educational projects of the brigades; In them, their total correspondence with the health table of the province must be observed, as well as the analysis of the health situation of the different areas of the province corresponding to each brigade.

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2. Know the main problems that arise in the management of the extension process at each of the levels:

- Define if the management that is executed by each one of the levels within the health system responds to the objective of the extension process of the University of Medical Sciences.
- Delimit the weaknesses and threats presented by the management of the extension in the University of Medical Sciences at each level within the health system, based on the Health Table of the province and the analysis of the health situation in each area.
- Determine the expectations of professors, researchers, workers, students and representatives of significant entities of the environment with the management of the extension in the University of Medical Sciences.
- Evaluate the system of relationships between the different levels within the health system and its bilateral link with the community

It is suggested that structured interview guides be used in this phase, appropriate to each level, as well as interviews with the different groups involved.

Important in this phase is also the insertion of the students in the analysis of the health situation of the area where they are located; this is done based on the felt needs of the community.

3. Evaluation of those in charge of directing the management of university extension in the University of Medical Sciences at the different levels within the health system.

- To determine if those in charge of directing the management of extension in the University of Medical Sciences, at each level, have the technological clarity to do so and

establish relationships with the remaining levels and entities involved in the process throughout the health system.

- Know the evaluation they make of the management of the extension in the University of Medical Sciences at each level in the entire health system, according to their aspirations in the face of the starting problem, which is related to the health picture of the province and the analysis of the health situation of the different areas.

The use of techniques such as: group or individual interviews with managers, with those in charge of this work and with members of the different existing formal or matrix structures is considered favorable in this phase.

In this case, the diagnosis fulfills a double function: on the one hand, it facilitates the definition of the task of each particular level or area in the management of extension at the University of Medical Sciences, based on the possibilities and limitations of its current performance, the real technological capacity of those in charge of its development and the felt needs of the intra- and extra-university community and, on the other, it pays tribute to the awareness and commitment of a high number of those involved in its solution.

The results of the diagnosis constitute the basis for the precision of the objective of the management of the extension in the university of medical sciences at each level, starting from the real possibilities, real problems and needs of the intra and extra-university community and the human resources prepared with that count, as well as to establish the measures, system of actions and strategies that allow the implementation of the relationship system, essential in the articulation of this task, moments with which this step closes.

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Action strategy 2. Training of the intra- and extra-university community in the extension and management of this process in the University of Medical Sciences integrated into the health system.

For the development of the extension process in the university of medical sciences, it is essential that the human resources involved in its development show a high willingness to change, based on the functions of the extension process in the medical universities and its integration with the other university processes in its close link with the health system and its impact on the community, as well as knowledge of the principles and laws that govern health promotion as a methodology for the development of said process in medical universities.

In this sense, the preparation element is an essential variable, because only from the knowledge of the theoretical and methodological referents of the extension and its methodology, the health promotion, will it be possible to produce the change that the social imperatives that this process poses, to the institution, the health system and the community in general.

The preparation of the members of the intra- and extra-university community is imposed to face the tasks of managing the extension process. In medical sciences universities the following is taken into account:

1. Include the subject of Health Promotion within the curriculum of all medical sciences careers.

Currently there is no Health Promotion course in the curriculum of all medical science careers. Taking into account the importance of this content in the training of all health professionals, as Health Promotion is an essential function of Public Health and a specific guideline of the economic and social policy of the country, it is proposed the

introduction of this course in all medical sciences careers, which values the theoretical and methodological foundations, conceptual and practical evolution of the main strategies and tools of health promotion.

2. Establish Health Promotion as a curricular strategy in the study plans of the different careers in the medical sciences.

This proposal is based on the need for health promotion for the professional who is trained in medical universities and what is necessary and essential to carry out extension actions within the health system, where the student develops from the beginning of his training, impregnating relevance to the institution. A Health Promotion course is not enough for the student to acquire all the necessary tools in this regard; It is necessary, in a transversal and integrating way, a strategy at the level of the entire curriculum, so that at the end of the degree a professionally qualified student is achieved in the use of health promotion tools and , in turn, contributes actively and consciously with the adequate preparation, with the management of the extension in the university of medical sciences integrated to the health system.

3. Execute a training program for the intra- and extra-university community about extension work in the medical sciences universities and the methodology of health promotion.

Action strategy 3. Development of new structures and administrative processes proposed by the extension management model at the University of Medical Sciences integrated into the health system.

To develop this action, it is important to take into account the following:

1. Develop the premises derived from the objectives and that will contribute to the creation of a favorable climate for the

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development of extension management in the University of Medical Sciences and an adequate assessment of the real potential of each group.

The management team must evaluate from the knowledge of the group in question, derived from the results of the diagnosis, and from the precision of its potentialities and limitations, the motivating actions that can lead to stimulating the participation of all those involved in the execution of the extension project management at the university of medical sciences.

In the same way, the assessment of the state of relations with groups of the same level and of other levels for the performance in the management of the extension in the university of medical sciences and the clarity that is had about the role that corresponds to them in particular.

2. Ensure full correspondence between the aforementioned objectives and the organizational forms that are decided to be adopted based on the stated purposes.

As a result of the results obtained in the previous action, the different groups and actors must be in a position to decide, based on the defined ideas and objectives, which will be the organizational forms that best respond to the stated objectives.

In this sense, mastery of the theoretical and methodological references is essential when selecting the organizational forms that will be adopted, based on the defined objectives and the scope that they intend to have, through the management of university extension at the University of Medical Sciences.

3. Design control, evaluation and monitoring mechanisms for the different organizational forms adopted.

Taking into account the peculiarities of health promotion as an extension methodology, the

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members of the different groups must define, in the very process of preparing the different organizational forms that they will adopt, the control, evaluation and monitoring mechanisms that they will have, as a guarantee to be able to adopt the corrective measures that allow it to meet the objectives and develop quality university socio-cultural work.

4. Ensure that the management structure is adapted to the execution of the planned actions, promoting the combination of the formal with the matrix and the committee structure.

A vital element for the expected change is the adoption of new structural formulas for the operation of this process in the University of Medical Sciences. For such purposes, it is vital to implement the Health Promotion Advisory Council, based on defining the composition and functions of its members in achieving the proposed objectives, guaranteeing from this moment that the conditions favor an adequate climate for the relationships that must be established between this advisory body and the administrative structure in the health system.

Similarly, it is essential to implement the administrative structure throughout the health system, which enables from the beginning a greater hierarchy, representativeness and articulation of relations between said committee and the administrative area; as well as an adequate delimitation of the functions of both structures, so that they can establish a harmonious relationship between them and with the remaining determined levels.

The definition and implementation of the matrix structure constitutes an essential element within the set of actions called to intervene in the management of extension in the University of Medical Sciences integrated into the health system. On the one hand, it

links a broad set of social actors, representatives of the intra- and extra-university community and, on the other, it means a change in the traditional ways of doing things and in the contribution to this process.

It is advisable that at first work be done at each of the levels, but with greater emphasis on the teaching departments, remaining areas and in the academic years, on the formation of project teams, activities, actions and tasks; taking care that it is carried out gradually and seeking an adequate balance in the selection of the members of each one of them, based on their preparation, potentialities and disposition for the task.

In particular, the selection of the heads of each one of these teams must be based, above all, on the leadership and recognition that they enjoy in their groups, considering that the criteria referring to their preparation or mastery of the theoretical and methodological references for the management of the extension in the university of medical sciences cannot be followed rigorously at this first moment, but their willingness to join the designed training actions can.

5. Systematically control, through the mechanisms derived from strategic planning and management by objectives or through specific evaluation designs, if the actions that are carried out produce results in the development of the extension process.

At each of the levels of the system, the mechanisms that allow for global monitoring of the results that are being achieved after the introduction of the extension management model in the integrated university of medical sciences must be established clearly and precisely to the health system; in accordance with the successes and limitations, proceed to establish the necessary corrections that

favor the fulfillment of the foreseen objectives.

Action strategy 4. Promotion in different spaces of extensionist and the management of this process in the University of Medical Sciences integrated into the health system.

This action is of vital importance in the introduction of the proposed model. Through it, it is possible to increase the knowledge of extensionist and the management of these processes in medical universities within the health system, as well as the motivation towards the execution of these processes, seeing the extensionist work reflected and recognized by dissimilar ways which is carried out at the different levels of the university of medical sciences and of the health system in general.

It is proposed:

1. Create different spaces throughout the health system where the different health problems faced by the intra- and extra-university community and the ways to solve them are disclosed.
2. Manage and disseminate, through the different media, the extension activities of the universities of medical sciences integrated into the health system, towards the intra- and extra-university community.
3. Develop a Web page that compiles the characteristics and extension activities of the University of Medical Sciences integrated into the health system.
4. Create a favorable climate in the entire intra- and extra-university community that motivates them to carry out extension activities in the universities of medical sciences.

Strategy Evaluation

By evaluation it is understood, in general terms, the action of judging, of inferring judgments from certain information derived directly or indirectly from the evaluated reality, or, attributing or denying qualities and qualities to the evaluated object or, finally, establishing real evaluations in relation to the lawsuit.

The evaluation is part of the structure of the strategy to improve the extension management process at the University of Medical Sciences within the health system; the same, as a control element, must be flexible, while requiring objectivity in the analysis of the indicators or measurement criteria that seek to determine the effectiveness, efficiency and relevance of the strategy.

Conceiving the evaluation of the strategy implies determining the indicators for each strategic action, in its link with the required operations, and submitting them for consideration by those responsible and beneficiaries of the same. In this sense, the indicators must be elaborated in measurable terms, either qualitatively or quantitatively.

The objectivity in the final evaluation of the strategy will give it a higher degree of validity and will allow its revision for adjustments, in such a way that, as an instrument of transformation, it constitutes a useful product for the improvement of the management of the university extension in the University of Medical Sciences.

Finally, a model of the extension management process in the medical sciences universities is structured, which allows the interrelation with the different structural levels integrated to the health system, based on the relationship between its two dimensions: administrative and management health promotion.

The designed strategy, as it corresponds to the management model of the university extension in the medical sciences universities, integrated to the health system, contributes to its improvement, on solid theoretical bases and with a strong scientific foundation.

The determination of the strategic actions for the implementation of the proposed model determines the essential patterns to establish the conditions that, in the order of communication, coordination between the different levels and the creation of a favorable climate, among others, lay the foundations for a new vision of the management of the extensionist process in the universities of medical sciences.

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Conflict of interest:

Authors declare not to have any conflicts of interest.

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The authors have participated in the writing of the work and analysis of the documents.



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