

MENDIVE



REVISTA DE EDUCACIÓN



evelyn.betancourt@umcc.cu

² Matanzas Legal Consulting. Cuba



yasser.garcia@umcc.cu

³ University of Matanzas. Cuba



lissette.jimenez@umcc.cu

Original article

Educational tasks of postgrad centered in prevention of professional illnesses: methodological considerations for their employment

Tareas docentes de posgrado centradas en prevención de enfermedades profesionales: consideraciones metodológicas para su empleo

Tarefas de ensino de pós-graduação voltadas para a prevenção de doenças profissionais: considerações metodológicas para sua utilização

Evelyn González Betancourt ¹



<http://orcid.org/0000-0002-1043-051X>

Yasser García Baró ²



<http://orcid.org/0000-0002-3153-625X>

Lissette Jiménez Sánchez ³



<http://orcid.org/0000-0002-3912-7901>

¹ René Vallejo Ortiz Teaching Polyclinic. Matanzas. Cuba

Received: June 7, 2022.

Accepted: December 18, 2022.

ABSTRACT

Postgraduate teaching tasks are located at the epicenter of the training processes that take place at this educational level. The development of methodological aspects, linked to its use for the treatment of occupational disease prevention contents, constitutes a requirement verified in the bibliographic review and in educational practice. Hence, the present study assumes the objective of elaborating some methodological considerations for the use of postgraduate teaching tasks focused on the prevention of occupational diseases. From a dialectical-materialist position, theoretical methods such as analysis and synthesis, historical-logical, systematization and modeling were applied during the investigation; At the empirical level, the review of documents was used based on previous research reports and legal provisions, which regulate essential aspects related to the subject. In addition, a focus group was formed to obtain evaluative criteria on the relevance of the methodological considerations. As part of the result, procedural aspects associated with the treatment of occupational disease prevention contents in postgraduate teaching tasks are required, including systematization, knowledge management, performance, innovation, and communication. In conclusive terms, it is reported that the methodological considerations for the use of postgraduate teaching tasks, focused on the prevention of

occupational diseases, make up a sequence of highly relevant interdisciplinary procedural criteria, according to the results of the focus group, evidencing compliance with the proposed objective.

Keywords: occupational diseases; interdisciplinarity; postgraduate; prevention; teaching tasks.

RESUMEN

Las tareas docentes de posgrado se ubican en el epicentro de los procesos formativos que tienen lugar en ese nivel educacional. El desarrollo de aspectos metodológicos, vinculados a su empleo para el tratamiento a los contenidos de prevención de enfermedades profesionales, constituye una exigencia constatada en la revisión bibliográfica y en la práctica educativa. De ahí que el presente estudio asuma el objetivo de elaborar algunas consideraciones metodológicas para el empleo de tareas docentes de posgrado centradas en prevención de enfermedades profesionales. Desde un posicionamiento dialéctico-materialista, se aplicaron durante la investigación métodos teóricos como el análisis y síntesis, el histórico-lógico, la sistematización y la modelación; en el nivel empírico se empleó la revisión de documentos en función de los informes de investigaciones precedentes y de las disposiciones jurídicas, que regulan aspectos esenciales vinculados al tema. Se conformó, además, un grupo focal para obtener criterios valorativos sobre la pertinencia de las consideraciones metodológicas. Como parte del resultado, se precisan aspectos procedimentales asociados al tratamiento de los contenidos de prevención de enfermedades profesionales en las tareas docentes de posgrado, entre ellas las de sistematización, gestión del conocimiento, desempeño, innovación y comunicación. En términos conclusivos se informa que las consideraciones metodológicas para el empleo de tareas docentes de posgrados,

centradas en prevención de enfermedades profesionales, conforman una secuencia de criterios procedimentales interdisciplinarios de elevada pertinencia, según resultados del grupo focal, evidenciándose el cumplimiento del objetivo propuesto.

Palabras clave: enfermedades profesionales; interdisciplinaria; posgrado; prevención; tareas docentes.

RESUMO

As tarefas educacionais de pós-graduação ficam situadas no epicenter dos processos formativos que you/they acontecem naquele nível educacional. O desenvolvimento de aspectos metodológicos, unido a seu emprego para o tratamento para os conteúdos de prevenção de doenças profissionais, constitui uma demanda verificada na revisão bibliográfica e na prática educacional. Com o resultado que o estudo presente, assumo o objetivo de elaborar um pouco de considerações metodológicas pelo emprego de tarefas educacionais de pós-graduação centrado em prevenção de doenças profissionais. Eles eram aplicados durante a investigação métodos teóricos como a análise e síntese, o histórico-lógico, de um posicionamento dialectical-materialista, o sistematizando e a modulação; no nível empírico a revisão de documentos era usada em função dos relatórios de investigações precedentes e das disposições jurídicas que regulam aspectos essenciais unidas ao tópico. Também conformou para, um grupo focal para obter chega valorative na relevância das considerações metodológicas. Como parte do resultado, eles são aspectos processuais necessários associados ao tratamento dos conteúdos de prevenção de doenças profissionais nas tarefas educacionais de pós-graduação, entre eles esses de sistematizar, administração do conhecimento, agindo, inovação e comunicação. Em condições conclusivas está informado que as considerações

metodológicas para o emprego de tarefas educacionais de pós-graduação centrado em prevenção de doenças profissionais, conforme uma sucessão de aproximações processuais interdisciplinárias de relevância alta, de acordo com resultados do grupo focal, sendo comprovado a execução do objetivo proposto.

Palavra chave: doenças profissionais; interdisciplinário; pós-graduação; prevenção; tarefas educacionais.

INTRODUCTION

The interest in addressing problems related to postgraduate learning has a global scope (Bernaza *et al.*, 2021). The international importance of the subject lies in the need to conceive with greater relevance the strategies of improvement and academic training, to face the complexity of professional problems in contemporary society. Teaching tasks gravitate at the epicenter of this endeavor, to which González & García (2021) attach marked importance in the professional training process.

This type of task constitutes the core of the learning activity at all educational levels. However, it is essential to meet their demands and particularities in each of them. In this sense, in Higher Education there are notable differences between the characteristics of the teaching tasks in the undergraduate, fundamentally linked to the Teaching-Learning Process (PEA), with respect to the post grade; where several training processes are integrated that recognize the governing nature of the professional's work activity. Among them, the PEA and the High Degree of Autonomy and Creativity Processes (PAGAC), which include: research, innovation, specialization, administration and artistic creation, just to

mention the best known (Bernaza & Douglas, 2016).

Certainly, the postgraduate pedagogical process has its complexities, not only because of its multi-process structural dimension, but also because of the complexity of the professional problems it attends to, its link with the work activity, the characteristics of its personal components, the multi- inter-transdisciplinary of its projections, its direct relationship with scientific-technological and economic-social development, among other factors indicative of a level of complexity also in postgraduate teaching tasks.

Next, some edges and contexts are reported, from which teaching tasks have been treated, in recent years in the scientific literature: Juviel & Trujillo (2015) reveal their characteristics in the independent study; Lopez *et al.* (2015) work on interdisciplinary aspects; Bernaza & Douglas (2016) refer to general theoretical-methodological elements; Martinez *et al.* (2016) assume their study in teacher training; Morales *et al.* (2020) reveal their regularities in the development of investigative skills; White *et al.* (2021) delve into research-labor training and knowledge management; Nunez *et al.* (2020) are projected on education at work; González & García (2021) discuss their use in the training of student assistants; Garcia *et al.* (2022) focus on safety and health at work with undergraduate students and Olivero *et al.* (2022) focus on the development of communication skills.

However, although the systematization of the preceding studies reveals the existence of a volume of research of incalculable theoretical-methodological value for Higher Education, it is noted that the vast majority of the contributions are focused on the undergraduate level, evidencing notable deficiencies in relation to to graduate. Actually, there are not many scientific works

that focus from the methodological point of view on the treatment of knowledge management, its systematization, communication, innovation and incorporation into professional performance, as essential postgraduate teaching tasks. The relationship between teaching tasks and interdisciplinarity also continues to be insufficiently treated, as a principle at this educational level.

Graduate teaching tasks are defined as:

That activity or group of them that is oriented, in accordance with the outlined objective, towards the systematization of knowledge, its management, performance, innovation and communication, in order to respond to the problems relevant to the development of the country, through the teaching-learning process, research, artistic creation, specialized professionalization and other postgraduate processes. It is carried out by the student (professional) in the different educational modalities and learning scenarios, in a planned way, with the guidance and control of the teacher or tutor and contributes to raising their cultural heritage and enriching their personality (Bernaza & Douglas, 2016, p.116).

In this sense, when considering the current conditions of the country's socioeconomic development, particularly the broad legislative movement, which introduces a set of changes and transformations in the forms of economic management and work organization: increase in land usufructuaries, expansion of work Self-employed, establishment of small and medium-sized companies, strengthening of the cooperative

sector, teleworking and remote work, it is necessary to reinforce the contents of prevention of occupational diseases in postgraduate studies. It should be taken into account, above all, in those professionals linked to health at work, including the specialist in Comprehensive General Medicine (MGI), leader in disease prevention in the community (López *et al.*, 2021).

Gonzalez *et al.* (2021) attribute high significance to the conceptual legal position, which conceives occupational diseases as pathologically defined health disorders recognized in current legislation, generated by work activity in workers who are habitually exposed to certain risk factors. Its prevention implies the integration of a set of organizational, educational and health measures, based on a set of occupational, hygienic, epidemiological, clinical, technical-laboratory and medical-legal criteria, linked to various scientific disciplines. Hence, the complexity and interdisciplinary nature of the subject. However, in the bibliographical review carried out by the authors of this work, no studies were identified that deal with methodological aspects related to the use of postgraduate teaching tasks focused on the prevention of occupational diseases.

A diagnostic study carried out in the 2021 academic year, aimed at identifying a current state of interdisciplinary knowledge and performance for the prevention of occupational diseases, in a group of MGI, owners of medical offices belonging to the "René Vallejo Ortiz" Teaching Polyclinic in Jovellanos, evidenced the existence of needs for professional improvement, linked to the subject.

In particular, weaknesses were found in the integration of disciplines, among them: Occupational Health, Ergonomics, Health Administration, Medical Law and Legal Medicine. Significant levels of motivation for the transformation of existing problems were also observed. It is also reported that

essential elements discussed here come from doctoral research in development, which is inserted in the sectoral project called "The academic training of a master's degree for health professionals: interdisciplinarity, virtuality and quality management for sustainable development", which is coordinated by the University of Medical Sciences of Havana, with the collaboration of other Cuban institutions.

As has been noted, the aspects that are being discussed do not allow avoiding the search for criteria from theoretical systematization and creative experience in educational practice, to methodologically guide the use of teaching tasks focused on prevention of occupational diseases; this effort, defined in the present work with the term of methodological considerations. In this sense, the objective of the research is declared: to elaborate some methodological considerations for the use of postgraduate teaching tasks focused on the prevention of occupational diseases.

MATERIALS AND METHODS

In the investigation, the dialectical-materialist method was considered as a general method of knowledge, in an integration of methods that included analysis and synthesis in the theoretical order, used mainly in the process of articulation and structuring of the essential ideas contained in the methodological considerations; together with the historical-logical, which facilitated the understanding of progressive aspects in the evolution of the problem under study; while the systematization allowed the identification and epistemic reconstruction of elements linked to the methodological treatment of postgraduate teaching tasks, based on previous research. Modeling was also used, applied to the design of the tasks in each of the stages of the prevention

process and in the elaboration of a practical case.

In the empirical order, the review of documents was used, applied mainly to the regulations provided in the Cuban legal framework, for the prevention of occupational diseases and the organization of postgraduate education. provisions _ legal review object _ were the following :

- Constitution of the Republic of Cuba, dated 4/19/19, proclaimed by the National Assembly of Popular Power (Article: 69).
- Law No. 116, dated 12/20/13. Labor Code, approved by the National Assembly of People's Power (Chapter XI).
- Decree No. 326, dated 6/12/14. Regulation of the Labor Code, issued by the Council of Ministers (Chapter XI).
- Resolution No. 283, dated 6/16/14. List of occupational diseases and the procedure for their prevention, analysis and control in the national system, issued by the Ministry of Public Health.
- Resolution No. 284, dated 6/16/14. List of activities that due to their characteristics require pre-employment and specialized periodic medical examinations, issued by the Ministry of Public Health.
- Resolution No. 104, dated July 18, 2019. Regulation of Postgraduate Education of the Republic of Cuba, issued by the Ministry of Higher Education.
- Instruction No. 1, dated May 11, 2020. Rules and procedures for postgraduate management, issued by the Ministry of Higher Education.

In addition, a focus group made up of 11 professionals was formed to obtain evaluation criteria on the relevance of methodological considerations. The selection

of the members of the focus group was carried out intentionally, and the following requirements must be met in each case: accredited teaching category equal to or higher than Assistant Professor; have an academic degree or scientific degree; have more than five years of teaching or research experience related to the topic; have access to Information and Communication Technology (ICT), particularly mobile devices; Express willingness to participate in the work sessions.

The exchange of ideas and organizational criteria, prior to the face-to-face sessions of the focus group, was favored by the use of *WhatsApp* as a communication tool. There was a total of two face-to-face sessions of the focus group, the first had the objective of guiding the recruitment mission and specifying indicators; while the second was oriented towards the identification of evaluative aspects on the relevance of methodological considerations.

The indicators presented to the members of the focus group to obtain evaluative criteria on the relevance of the methodological considerations were the following:

1. Current topic.
2. Significance of the methodological aspect.
3. Epistemic value of the essential ideas.
4. Pertinence of the structural elements.
5. Applicability of the methodological guidelines.

The methodological strategy followed contemplates in its dynamics the transition through three fundamental stages:

- First stage: included the review of documents for the theoretical-methodological systematization and

the synthesis, resulting from the analysis of the experience of the authors in the investigation of the subject.

- Second stage: it was oriented towards the determination of the structural contents of the methodological considerations and the writing of the fundamental ideas.
- Third stage: it was directed towards the identification of evaluative criteria on the relevance of the methodological considerations.

RESULTS

The presentation of the results was oriented, in a first order of analysis, towards the structural elements of the methodological considerations: objective, guiding ideas, task design, modeling of a practical case and some methodological guidelines for its use; Subsequently, the evaluations of the focus group are reported.

Methodological considerations for the use of postgraduate teaching tasks focused on prevention of occupational diseases

Objective: to facilitate the use of postgraduate teaching tasks focused on the prevention of occupational diseases.

Guiding ideas: they were conceived with the purpose of guiding decision-making and the arrival at procedural conclusions, in the methodological treatment of postgraduate teaching tasks focused on prevention of occupational diseases. Its level of applicability has a scope for the design, orientation, execution and control of this type of task. Among them are:

- *The link of postgraduate teaching tasks with professional work activity.*

This idea was formulated to indicate that in postgraduate education, work activity has a guiding character. Hence, all the training processes and the teaching tasks that are developed in them are conditioned by the characteristics, needs, problems, priorities, scenarios, values, modes of action, among other elements inherent to the work context in which they perform. the professional. To the extent that postgraduate teaching tasks are linked to the professional's work activity, the relevance of the training program increases.

- *The correspondence of postgraduate teaching tasks with the solution of professional problems.* Through this position, the high significance of professional problems for postgraduate studies was recognized, based on the needs of the country's scientific-technical and economic-social development. The complexity of professional problems is expressed in postgraduate teaching tasks as relevant situations linked to the object of the profession, which demand solutions and integrating professional performances. This correspondence prints a transforming and proactive character to postgraduate teaching tasks, based on its creative and prospective projection.
- *The objective as a guiding element in the orientation and control of postgraduate teaching tasks.* It was specified that the objective is concatenated to the solution of professional problems and essential aspects of the content are integrated into its ordering structure as part of the professional culture constituted as a learning object. The knowledge, skills, values, methods, relationship rules, ethical procedures and other elements to which high professional significance is attributed, constitute

part of the content. The organizational and evaluation forms of postgraduate teaching tasks, together with the conditions in which they will be carried out, also respond to the scope and degree of elaboration of the objective.

- *The collaborative nature of the relationships that are established between the personal components in postgraduate teaching tasks.* The group, the professors, the tutors and the students (professionals) constitute personal components of the postgraduate teaching tasks. Among them, collaborative work relationships are established, essential for the fulfillment of the planned objectives. It is recommended to take into account the skills for group work, decision-making, planning and organization of the individual activity, as well as the development of values, among others: responsibility, solidarity, cooperation and industriousness. Generally, postgraduate groups are distinguished by their heterogeneity; This feature tends to become a strength, if the teaching tasks are conceived with a collaborative nature, which reinforces the levels of help among the members of the group.
- *The necessary and logical interrelation between the different types of postgraduate teaching tasks.* This idea was raised with the purpose of warning about the need to integrate, from a certain objective, several teaching tasks for the resolution of the complex professional problems treated in the postgraduate course. It implies considering that none of the teaching tasks, by itself, has the capacity to solve the needs related to the knowledge and performance of the professional. Among them, logical and necessary complementarity relationships are

established, being able to identify certain situations, in which some teaching task is ranked, according to the complexity of the learning activity, the characteristics of the organizational form and the objectives of the program.

- *The interdisciplinary nature of the occupational disease prevention process.* This idea assumed the recognition of the integration of occupational, hygienic, epidemiological, clinical, technical-laboratory and legal criteria, supported by various scientific disciplines linked to the prevention of occupational diseases. This budget reinforces the analysis of the complexity of postgraduate teaching tasks focused on the prevention of occupational diseases. It is recommended to determine the interdisciplinary axes, around which the different disciplines are integrated. The recognition of complex professional problems as integrating elements makes it possible to consider the process of prevention of occupational diseases as an interdisciplinary axis, which demands, in each of its stages - depending on the functions of the professional-, specifying a level of knowledge and performance interdisciplinary.
- *The need to establish indicators that facilitate the forms of evaluation of postgraduate teaching tasks focused on prevention of occupational diseases.* Here the bases for the development of the forms of evaluation were pondered. The quality indicators for postgraduate teaching tasks must be established. It is not a unilateral construction of teachers or tutors; rather, it results from a participatory, dialogic and agreed work. The indicators, terms and quality requirements must

become an idea shared by all the subjects that participate in a collaborative project. It is recommended to attend to comprehensive evaluation criteria, which consider the cognitive, procedural and attitudinal achievements of the group, as well as of each student. Also, must encourage self - assessment and peer -assessment .

Design and structure of postgraduate teaching tasks focused on prevention of occupational diseases: modeling of a practical case

Next, some postgraduate teaching tasks are enunciated, taking into account the different stages through which the process of prevention of occupational diseases in primary health care goes through. In addition, the modeling of a practical case is presented, which reveals essential aspects of the design and structure of postgraduate teaching tasks focused on the prevention of occupational diseases. The situations and assumptions discussed here considered, in their methodological projection, characteristics of the work activity and professional problems of the specialist in Comprehensive General Medicine who works in a Family Doctor and Nurse Office.

Figure 1, which appears below, reveals the dynamics followed in the logical conception of the occupational disease prevention process, in its transit through four fundamental stages.



Fig. 1- Representation of the stages of the process of prevention of occupational diseases

Bearing in mind that the diagnosis stage considers as a specific objective to diagnose the real state of the prevention of occupational diseases in a certain occupational health care context, the following teaching tasks were proposed:

- Systematization of interdisciplinary methodological criteria for the initial diagnosis in the prevention of occupational diseases.
- Identification in labor groups of biological, physical, chemical and ergonomic risk factors associated with occupational diseases.
- Analysis of the health situation in labor groups.
- Determination of the level of perception of risk associated with occupational diseases in workers.
- Characterization of states in the process of prevention of occupational diseases in a given occupational health care context.
- Preparation of diagnostic instruments such as checklists, interviews, surveys, observation guides, among others.
- Exploration of risk situations associated with occupational diseases.
- Development of indicators and measurement instruments for diagnosis with an interdisciplinary approach.
- Determination of the validity of the legal provisions that make up the legal framework for the prevention of occupational diseases.

For the planning stage, which has the objective of designing occupational disease prevention activities from an interdisciplinary and proactive position, the following were formulated as fundamental teaching tasks:

- Systematization of innovative experiences in the prevention of occupational diseases from an interdisciplinary approach.
- Design of collaborative and interdisciplinary actions for the prevention of occupational diseases in work groups.
- Determination of the legal framework applicable to the occupational health care context.
- Preparation of collaboration instruments between sectors, institutions, departmental levels and subjects involved in the prevention of occupational diseases.
- Planning levels of specialized advice from an interdisciplinary approach.
- Application of techniques to search for updated information on health promotion in labor groups.
- Development of health promotion strategies for the prevention of occupational diseases.
- Development of training programs and health education.

The teaching tasks that were designed for the execution stage, with the aim of implementing occupational disease prevention actions in medical care practice, appear below:

- Introduction in the preventive practice of occupational diseases, scientific results from different areas of knowledge related to the field of health.
- Coordination of collaborative and interdisciplinary strategies for the prevention of occupational diseases in work groups.
- Collaboration in consulting processes and specialized advice.
- Mediation in situations of labor conflict associated with occupational health.

- Implementation of talks, interviews, health hearings, debates, among other activities for health promotion.
- Management of health information and communication processes.
- Coordination of interdisciplinary work groups for the prevention of occupational diseases.

For the evaluation stage, which aims to assess the quality of the occupational disease prevention process, the following teaching tasks were defined:

- Exchange of relevant experiences in the control and measurement of efficiency in the prevention of occupational diseases.
- Validation of health promotion strategies and programs.
- Evaluation of the implementation of interdisciplinary actions in the prevention of occupational diseases.
- Self-assessment of performance in occupational disease prevention activities.
- Assessment of the level of risk perception associated with occupational diseases in workers.
- Verification of the efficiency and effectiveness of the actions at each stage.
- Use of the means and documentation established to inform about the state of the process of prevention of occupational diseases.

Practical case of a postgraduate teaching task

Type: teaching performance task.

Structural elements: objective, content, methods and means, organizational form, setting, personal components and indicators for evaluation.

Objective: to evaluate the interdisciplinary actions that are implemented for the prevention of occupational diseases in primary health care.

Content: interdisciplinary actions for the prevention of occupational diseases; occupational, hygienic, epidemiological, clinical, educational, legal and administrative criteria of the interdisciplinary approach; professional performance and procedures for its evaluation in primary health care.

Associated skills: to evaluate interdisciplinary actions, the student must define moments or periods to be evaluated, determine indicators, collect information, analyze elements, identify results, establish interdisciplinary relationships, and draw conclusions.

Values: industriousness, collaboration, discipline and humanism.

Method: joint development.

Means: legal provisions that structure the legal framework for the prevention of occupational diseases, National Program for workers' health care.

Organizational form used: training.

Scenario: real work scenarios are used, under conditions and demands typical of the job in a medical office.

Personal components: professor or tutor and students (MGI).

Main task: evaluation of the interdisciplinary actions that are implemented for the prevention of occupational diseases in primary health care.

Among other performance teaching tasks linked to the objective, it is recommended:

1. Systematization of theoretical-methodological elements linked to the evaluation of interdisciplinary actions for the prevention of diseases in primary health care.

2. Preparation of indicators for the evaluation of interdisciplinary actions for the prevention of occupational diseases in primary health care, taking into account occupational, hygienic, epidemiological, clinical, educational, legal and administrative criteria.

3. Design of methods for the collection of information linked to interdisciplinary actions for the prevention of occupational diseases in primary health care.

4. Implementation of methods for the collection of information on interdisciplinary actions for the prevention of occupational diseases in primary health care.

5. Analysis of data linked to the state of interdisciplinary actions for the prevention of occupational diseases in primary health care.

6. Determination of results by indicators in interdisciplinary actions for the prevention of occupational diseases in primary health care.

7. Draw conclusions from the behavior of the indicators for the evaluation of interdisciplinary actions for the prevention of occupational diseases in primary health care.

Below are some methodological guidelines that were conceived for the orientation, execution and control of postgraduate teaching tasks, included in the case study:

- Consider in the orientation the professional needs of the students, as well as the conditions, the interdisciplinary nature and level of complexity of the learning activity. In all cases, it is recommended to reinforce the integration of

occupational, hygienic, epidemiological, clinical, educational, legal and administrative criteria, which favor the implementation of interdisciplinary actions for the prevention of occupational diseases in primary health care.

- Evaluate, during the execution of teaching tasks, the use of ICT: text messages, mobile telephony, email, podcast; as well as the use of groups on *Facebook*, *Twitter*, *YouTube*, *Instagram*, *WhatsApp*, *Todus* and *Picta*. These communication tools enhance the orientation and control of postgraduate teaching tasks. In addition, they meet important requirements such as immediacy in communication, consultation and supervision in real time, collaborative work in efficient conditions and early feedback for the introduction of adjustments, as well as organizational decision making.
- Attend from a collaborative approach to learning needs, which are identified during the execution of teaching tasks. This stage presupposes the moment of greatest concretion in the performance of the tutor and the postgraduate student, in the process of prevention of occupational diseases. Health care units in primary care: family doctor's offices, polyclinics and community work centers, are considered recommended scenarios for the execution of tasks.
- Control, during the execution of teaching tasks, the comprehensive professional performance of students, as well as the quality of operations and ways to communicate the results they obtain. Systematic control ensures an adequate level of feedback for decision making and the implementation of corrective measures. Hence the importance of attending not only to the final result

of the tasks, but also to each of its procedures or resolution phases.

- Consider, among the indicators to evaluate the performance of the students, the following: integrates theoretical and practical elements for the solution of the task; manage knowledge based on collaborative strategies; successfully completes the task in its performance; implements innovative solutions to the problems presented; maintains efficient and respectful communication throughout the task until its completion; establishes links between different disciplines related to the prevention of occupational diseases; defines integrating nodes or interdisciplinary axes in the process of prevention of occupational diseases.

The evaluations of the members of the focus group were expressed through a rating scale of five options (Very suitable, quite suitable, Suitable, Little suitable and not suitable). The identified results allow us to report a prevalence of indicators valued as Very adequate and quite adequate. This aspect is indicative of the high relevance attributed to methodological considerations for the use of postgraduate teaching tasks, focused on prevention of occupational diseases, according to the criteria of the members of the focus group. Table 1 (evaluative results of the focus group) is presented below.

Table 1- Evaluative results of the focus group

Focus group						
Indicators evaluated	Very appropriate	Pretty appropriate	Suitable	unsuitable	not suitable	total experts
indicator 1	11 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	eleven
indicator 2	7 (63.6%)	4 (36.4%)	0 (0%)	0 (0%)	0 (0%)	eleven

indicator 3	7 (63.6%)	3 (27.3%)	1 (9.1%)	0 (0%)	0 (0%)	eleven
indicator 4	9 (81.8%)	2 (18.2%)	0 (0%)	0 (0%)	0 (0%)	eleven
indicator 5	9 (81.8%)	2 (18.2%)	0 (0%)	0 (0%)	0 (0%)	eleven

DISCUSSION

The classification and definition of the types of postgraduate teaching tasks in this study followed the criteria set forth by Bernaza & Douglas (2016). These authors define five types of teaching tasks, linked to: systematization, knowledge management, performance, innovation and communication. One task is distinguished from another by the fundamental objective it pursues; but all of them make up a system of educational influences on the student, which cause a qualitative change in their learning, in their professional improvement and in the enrichment of their personality.

The systematization tasks have as their central objective the generalization and production of knowledge and favor the transition of the student from a reproductive level, towards scientific criticism, support for the production of new knowledge of greater social relevance. While knowledge management tasks are conceived from the use of ICT and the development of skills for the search for scientific information, which satisfies the needs of knowledge and professional performance (Bernaza & Douglas, 2016).

Teaching performance tasks develop student autonomy and creativity. They are mainly used in postgraduate training, in appropriate work settings to achieve the expected performance, under the guidance and control of tutors or professors. Innovation tasks promote flexible thinking, non-conformity with routine, a feeling of challenge and

motivation in students, in order to solve problems in society, the productive sectors, services and communities. For their part, the communication tasks are intended for the student to be able to communicate through the use of professional language, evidencing that he is capable of doing so in a renewed, grounded way and relying on ICT (Bernaza & Douglas, 2016).

The review of the legal provisions that structure the legal framework for the prevention of occupational diseases and the organization of postgraduate activity in Cuba favored the decision-making process during the elaboration of the methodological considerations, based on considering, among other aspects:

- The understanding of the prevention of occupational diseases as a state interest, in accordance with what is legitimized by the Constitution of the Republic of Cuba, in article 69.
- The characteristics of the pedagogical process in postgraduate education and its principles, regulated by Resolution No. 104 dated July 18, 2019, issued by the Ministry of Higher Education, in articles 5 and 6.
- The fundamental organizational forms of the postgraduate course, recognized by Resolution No. 104 dated July 18, 2019, issued by the Ministry of Higher Education, in articles 20 and 31.
- The conceptual definition of occupational disease provided by Law No. 116 dated 12/20/13, Labor Code, in article 130.
- Pathologies classified as occupational diseases and risk factors, as provided by Resolution No. 283 dated 6/16/14, issued by the Ministry of Public Health, in the second numeral.
- The procedure established for the prevention of occupational diseases, by Resolution No. 283 dated 6/16/14,

issued by the Ministry of Public Health, in the fourth numeral.

There is a coincidence with the assessments made by García *et al.* (2022), after concluding a study focused on safety and health at work with undergraduate students. The aforementioned authors state that "The foundation of the tasks is constituted by the contradiction between what one has and what the subject wants to achieve; that is, it is precisely the contradiction of the problem posed in the tasks that advances thought along the path towards its solution" (p. 442).

In this sense, it is specified that, in the case of the postgraduate course, the teaching tasks also respond to a specific objective and are closely linked to the solution of professional problems. They translate the complexity and contradictions of the work activity; even, depending on the organizational form used, they can directly consider the real work conditions and scenarios in which important experiences and unplanned learning situations are generated, which put the expertise of teachers, tutors and students to the test.

The study carried out evidenced the complexity of the postgraduate pedagogical process and the interdisciplinary nature of the process of prevention of occupational diseases. Hence, the teaching tasks related to the subject reveal the same level of complexity and interdisciplinarity. In this sense, some methodological considerations were elaborated, in accordance with the expected objective, with the purpose of favoring the use of postgraduate teaching tasks focused on the prevention of occupational diseases.

The methodological considerations structure a sequence of interdisciplinary procedural criteria, coming from the theoretical systematization and the creative experience

in educational practice, to conduct the use of teaching tasks in the postgraduate course.

In conclusive terms, it is reported that the result presented in this paper is likely to be generalized to various postgraduate organizational forms that deal with the prevention of occupational diseases as part of the content of training programs. In addition, the high relevance attributed to the proposed methodological considerations is verified, according to the evaluative criteria of the members of the focus group, evidencing the fulfillment of the proposed objective.

BIBLIOGRAPHIC REFERENCES

- Bernaza Rodríguez, G., & Douglas, C. (2016). Un paso más hacia las tareas docentes en el posgrado. *Revista Iberoamericana de Educación*, 71(Extra 1), 113-132.
- Bernaza Rodríguez, G. J., Douglas de la Peña, C., Orama Domínguez, I., González Betancourt, E. Pausa Carmenates, M. M., & Dumé Sánchez, J. A. (2022). Diseño curricular de programas de maestría para profesionales de la salud. *Revista Educación Médica*, 36(4), e3635.
- Blanco Barbeito, N., Véliz Escobar, D., Caraballo Peraza, I., Raimundo Rivera, D., Camacho Díaz, Y., & Fabelo Mora, V. (2021). Tareas docentes para la formación investigativo-laboral y de gestión del conocimiento desde Enfermería Ginecobstetricia. *EDUMECENTRO*, 13(1), 1. <http://www.revedumecentro.sld.cu/index.php/edumc/article/view/1646>
- García Bruzón, Y., Watson Quesada, R., & Cuña Quintana, B. L. (2022). La seguridad y salud en el trabajo en estudiantes de la carrera Ingeniería de Minas. *Mendive. Revista de Educación*, 20(2), 437-449.
- González Betancourt, E., & García Baró, Y. (2021). Metodología para la formación profesional de alumnos ayudantes, mediante tareas docentes de desempeño. *Revista Médica Electrónica*, 43(4), 910-926.
- González Betancourt, E., García Baró, Y., Jiménez Sánchez, L. (2021) Consideraciones teórico-metodológicas para el tratamiento al contenido jurídico en la prevención de enfermedades profesionales. *Revista Humanidades Médicas*, 21(1), 92-108.
- Juviel Rodríguez, M. N., & Trujillo Juviel, P. (2015). Sistema de tareas docentes para el trabajo independiente en Medicina Natural y Tradicional. *EDUMECENTRO*, 7(2), 2.
- López Espinisa, G. J., Valcárcel Izquierdo, N., & Pérez Bada, E. (2021). Médico de familia y atención integral a la salud del trabajador. *Revista Cubana de Medicina General Integral*, 37(4), 4. <http://www.revmgi.sld.cu/index.php/mgi/article/view/1695>
- López Méndez, E. R., González Ortega, A. M., & Cardoso Lara, M. (2015). La aplicación de tareas integradoras interdisciplinarias en el proceso de enseñanza-aprendizaje de la formación inicial de los profesores

de Ciencias Naturales. Mendive.
Revista de Educación, 13(3), 3.

Investigación. EDUMECENTRO,
12(1), 131-150.

Martínez Zamora, L. E., Hernández Páez, L., & López Méndez, E. R. (2016). La tarea docente en la formación del profesor de Biología-Química. Mendive. Revista de Educación, 14(3), 283-291.

Núñez Escobar, E., Blanco Barbeito, N., Jiménez Jomolca, E., García López, I., & O'Farrill Zequeira, L. (2020). Tareas docentes para el desarrollo de habilidades investigativas desde la educación en el trabajo. EDUMECENTRO, 12(2), 146-160.

Morales Hector, F. de la C., Rodríguez del Sol, R., Domínguez León, F. E., Pérez Rodríguez, I., Cárdenas González, O. S., & Cabrera Domínguez, M. (2020). Tareas docentes para desarrollar habilidades investigativas desde la asignatura Metodología de la

Olivero Herrera, M. O., Tamayo Caballero, R. L., Acosta Coutín, G., & Aguilera Saborit, G. E. (2022). Tareas para el desarrollo de la competencia comunicativa en inglés de estudiantes de Ingeniería de Minas. Mendive. Revista de Educación, 20(2), 394-407.

Conflicts of interest:

The authors declare no conflict of interest.

Contribution of the authors:

The authors participated in writing the paper and analyzing the documents.



This work is licensed under a Creative Commons Attribution - NonCommercial 4.0 International License

Copyright (c) González Betancourt, E., García Baró, Y., & Jiménez Sánchez, L.

Cite as

González Betancourt, E., García Baró, Y., & Jiménez Sánchez, L. (2023). Postgraduate teaching tasks focused on prevention of occupational diseases: methodological considerations for their use. *Beg. Education Magazine*, 21 (1), e3115.

<https://mendive.upr.edu.cu/index.php/MendiveUPR/article/view/3115>