



The similarity of majors at UNAN-Managua in the area of knowledge health: nursing case

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ABSTRACT

The curricular harmonization of careers belonging to the same area of knowledge is a process in which aspects that make them similar are taken into consideration, in this specific case, fields of action; Study plan, professional profile, and objectives/competencies. In other words, to harmonize career curricula within an institution of higher education, the authorities should decisively assume the purpose of having majors that respond to the demands of the country and that the resulting major plan responds to the institutional plans and the PNLCP-DH 2022-2026. Hence, the purpose of this article is to describe the process of harmonization of nursing majors at UNAN, Managua. The research work was carried out using the qualitative approach. This methodological option allowed the use of instruments and techniques that allowed to have a significant impact about research studies, which in this case were the curricular designs of the careers selected for this study, according to the area of

knowledge. Among the main results, the same subjects stand out from the first to the third year, and it is only in the fourth and fifth years that they differ from subjects, and these are minimal in the disciplinary area. Meanwhile, the similarity or equality in these majors lies in the fact that all nurses (from first to third year), consider the mastery of nursing procedures to improve the skills of their graduates since the restoration of physical health is promoted.

1. INTRODUCTION

The permanent renovations of the advances in science and technology that society faces make Higher Education a process of continuous updating and improvement, especially in Latin American countries. Hence there is a need to consolidate or harmonize careers that belong to the same area of knowledge and, based on this, critically add content and actions to their curricula according to the field of action and professional profile and thus achieve the specialization of the graduated professionals.

In this sense, it is necessary to innovate educational practice from curricular organization, curricular management, research, and linkage with fields of action. This implies that the directors of the areas of knowledge, teachers, and external actors (such as institutions, and companies, among others) assume challenges in creating scenarios and produce changes that respond to state and institutional guidelines and, therefore, of the country. Hence, in this article, through a qualitative methodological design, a comparative analysis of careers in the area of Health knowledge is presented on the similarity or the same of these, to offer a look at said similarity on elements: fields of action; Study plan, professional profile and objectives/competencies.

The most outstanding results will allow us to assess the similarity or equality of careers that demonstrate that there is equality in all the elements described above. That is, their construction is oriented towards the same field of action, until the third year, and it is from the fourth year that, in some, specialization occurs. Meanwhile, even though, according to the curricular meshes of the careers under study, they express that they are strictly focused on developing competencies and that students must be based on general training (they achieve it at the end of the third year) and that then the specialization begins.

2. LITERATURE REVIEW

Since 2019, the National Autonomous University of Nicaragua, Managua, UNAN-Managua has been making considerable efforts to improve the quality of education in undergraduate and postgraduate courses and has implemented a series of actions, which have resulted in the need to carry out a curricular transformation at both levels.

In this sense, and considering that the curriculum is a global, integrated, and flexible project, with general bases and principles for all processes: planning, execution, evaluation,

and justification of the educational project, which must be taken up by the institution and the teachers as a framework for orientation and reflection, the UNAN-Managua, conceives this curricular design (2013) based on the integral approach. This conception seeks a broader understanding of the human being, manifested by students in intellectual autonomy, the development of creativity, reflection, and critical thinking; development of skills and abilities, in the formation of civic, cultural, ethical, humanistic, spiritual, ecological values and in positive attitudes towards life. (UNAN-Managua, 2011-2015)

Likewise, the UNAN-Managua, in constant search for improvement, in a session of July 14th-2021, on July 9th, 2021, approved the lines and sublines of research as part of the process of curricular transformation or improvement, and these respond to the areas of knowledge determined by the National Council for Evaluation and Accreditation (CNEA). Meanwhile, it is called the area of knowledge:

To the grouping that is made of academic programs, taking into account a certain affinity in the contents, in the specific fields of knowledge, in the fields of action of higher education whose training purposes lead to research or the performance of occupations, professions, and disciplines (CNEA, 2020).

Taking the above as a reference, seven areas were determined. These seek to constitute the foundation of teaching and indissoluble unity for undergraduate and postgraduate training and, based on this, generate, reproduce, and transfer knowledge, through the organization and development of research, innovation, and interdisciplinary entrepreneurship processes of basic, applied, and experimental development research: Social and Humanistic Sciences, Education Sciences; Natural and Exact Sciences, Engineering, Industry, and Construction; Health, Economic Sciences, and Agricultural Sciences. (UNAN-Managua, 2020)

These areas respond to the training needs demanded by the knowledge society, as well as guideline number 3: “greater and better coverage in education, strengthen and improve the technological and physical infrastructure for education. Improve universal access to technologies, the Internet to close educational gaps (...)” of the National Plan to Fight Poverty and for Human Development 2022-2026.

Higher education institutions should train students to become well-informed and deeply motivated citizens, equipped with a critical sense and capable of analyzing the problems of society, seeking solutions to what society poses, applying these, and assuming social responsibilities, for this development of innovative educational methods that promote: critical thinking, reflection, research, innovation and creativity.

Considering these areas declared by the UNAN-Managua and about the majors offered, for this study, careers in the area of knowledge were selected: Health, specifically nursing careers. Hence, the importance of the analysis lies in identifying the relationship between the

careers of the selected areas of knowledge, and for them, a selection of categories or dimensions must be made that allow such identification. These elements include *fields of action; curriculum, professional profile, and objectives/competencies*.

Talk About ***Fields of action***, in the educational field, refer to that part of the object or places, properties, or relationships in which the graduate can carry out activities through his or her training. The fields of action, depending on the major, “are emanated from the social reality and from the discipline itself tending to the solution of previously warned social needs. (Barriga, 1996) Hence, it is important that, during the construction of a curriculum design, a diagnosis is considered or carried out to help characterize the profession and its development prospects.

As for the ***study plan***, this is the structured scheme in which the compulsory and fundamental areas or subjects roll with their respective descriptions of topics, objectives, forms of evaluation, and completion of this. Meanwhile, the study plan is considered as:

A general description of what is to be (or can be) learned, which must be supplemented by detailed descriptions contained in the descriptive letters. The function of curricula is to allow us to communicate and examine a large amount of learning, as well as its order and circumstances” (Arnaz, 2012, p. 29).

Meanwhile, it must be flexible and adjust to the base plan with the individual particularities of the students and, to a large extent, to the transformations imposed by scientific, technical, and research development. This requires that it be coherent with the social demands of the nations and regions, which implies a broad conception in which all the activities demanded by each subject are used to the maximum according to their field of action.

In this sense, Aquino et al. (2019) add: “the curriculum of a profession is a process that must take into account the search for permanent transformation and avoid presenting difficulties due to establishing rigid disciplinary limits, and even so it must also be efficient” (p. 64).

In summary, the curriculum is a system of pedagogical organization and as such for its construction, an analysis must be made from the graduate’s field of action and professional profile to then be executed and evaluated by a community of experts in the area. Meanwhile, its existence and quality imply the participation of those involved: internal actors (teachers, educational community) and external actors (demand from professionals: companies, ministries, governmental and non-governmental institutions, among others). In other words, the study plan of a career is based on two pillars or bases, the graduate profile, which responds to social needs and demands, and the curriculum or design which responds to the construction of competencies in the graduate profile from the psychopedagogical perspective.

However, the **professional profile** of a major is linked to the conditions of Higher Education Institutions (HEIs) to respond to the demands of a society that seeks the continuous improvement of its social, political, economic, and cultural well-being and that is defined by the degree of compliance with such demands of society. In this sense, Díaz-Barriga (2011, p. 68) states that the professional profile of a career is made up of “knowledge, skills, and attitudes that will allow the performance of tasks that ensure the production of specific services and goods so that these occupational and social activities depend on the context in which they are practiced (...)”.

That is, the professional profile provides the admissible conditions that a professional must possess for their insertion into the labor market, which is determined by the skills to be acquired by the graduate during their training in an HEI. Meanwhile, it determines the limits of what is expected of the graduate at a given level of teaching as theoretical as practical, the latter being the one on which the current curricula are focused.

In the words of Hernández (2015, p. 31) a profile shows:

The personal characteristics that this professional should possess in a particular way, that is their personality traits.

The skills and abilities that must characterize their work are specified in the functions to be performed by that professional.

The knowledge, skills, and attitudes required for professional practice.

The general and specific actions developed by a professional in the fields of action for the solution of the identified social needs.

Taking this approach, it can be deduced that the professional profile has a double role, it marks the starting point of professional training and, at the same time, an expression of the culmination or final product that guarantees the graduate to face a labor market. Consequently, it must be constantly reviewed and adjusted to the changing demands of society.

And the last element to consider is **objectives/competencies**. This article talks about both since in the 2013 plan, the curricular designs of the careers are by objectives while in the 2021 plan by competencies. Therefore, competency-based curriculum design is a mandatory and complex process of constant curricular transformation, resizing, and improvement to guarantee the quality of training to the demands of society.

On the other hand, the objective model focuses on content development and endocentric integration through the development of strategies such as repetition, elaboration, and organization. The first leads to a rather superficial processing of the knowledge of a subject and is more linked to reciting or naming items from a list to be learned. The second, interest is

that there is a relationship between the new information to be learned with previously acquired knowledge, which has been defined as significant learning. The last one is responsible for the students to carry out actions of grouping, hierarchizing, and organizing the information presented Valle et al. (1999). Their training focus is the accumulation of content (information) during the training process, but less practical actions in which the trainee (student) executes actions related to the information provided.

3. MATERIAL AND METHOD

The research work was carried out using the qualitative approach and this type of research, according to Hernández et al. (2014), is guided by significant areas or themes. This indicates that qualitative studies may develop guiding questions before, during, or after data collection and analysis. Similarly, Lawsy & McLeod (2014) suggest that: “while a quantitative research design identifies and addresses specific variables, a qualitative research design focuses on a holistic view of the object studied” (p. 2). Thus, this methodological option allowed the use of instruments and techniques that have a significant impact on the subjects of research studies, which, in this case, were the curricular designs of the careers selected for this study, according to the area of knowledge.

In this sense, for the realization of the research, a large unit of analysis was determined: similarity of careers by areas of knowledge. A smaller unit depends on it: 2013 and 2021 curricular plans. In addition, minor units of analysis were considered, such as the discourses obtained from the interviews conducted with directors of undergraduate academic departments of nursing careers. For the collection of information, a script for an in-depth interview was constructed for the directors of undergraduate academic departments and this was validated using the individual conglomerate technique (fifteen experts in the area of study), as a double-entry matrix for the analysis of the curricular designs of the careers selected for this study. The selection of these careers was made for convenience due to the ease of access to data, the availability of department directors, and time.

Regarding the techniques and instruments that were used to carry out this research, theoretical methods (analysis, synthesis, deduction, and induction) were used, to support the validity of the research carried out. Hence, (Bunge, 1998, p. 81) states that: “the references of other research and its current dispositions, the analysis and the synthesis provide the description of the biographical examined in order to comment systematically on it and extract particularity of the phenomenon, the object of research”. The documentary analysis was carried out on the curricular designs or curricula of the degree programs selected according to the areas of knowledge.

To process the information obtained, he made use of interpretative analysis of careers that are similar in fields of action; study plan, professional profile and objectives/competencies

through the technique of documentary analysis. This made it possible to carry out an analysis of the study programs and identify the aforementioned elements. All this in accordance with what Solís (2013) states that this method: “allows us to select informationally relevant ideas from a document (...). The purposes of documentary analysis transcend the mere retrieval/ dissemination of information. They are also aimed at facilitating cognition and/or learning” (p. 18).

The triangulation technique of information was also applied and the units of analysis (major and minor) or categories of analysis were taken into account for this study. For the analysis of these categories, the proposal made by Piñuel and Gaitán (2013, p. 212) on content analysis was considered, and states that this is a:

(...) A set of interpretative procedures and techniques for testing and verifying hypotheses applied to communicative products (messages, texts or discourses), or to communicative interactions that, previously recorded, constitute a document, in order to extract and process relevant data on the conditions.

4. RESULTS AND DISCUSSION

To find the similarity of undergraduate degrees, it is necessary to carry out an analysis of the curricular designs or mesh of these and, from this, determine the number of subjects of the careers. However, in this case, it is not intended to establish comparisons in terms of the concordance of the study plan, graduation profile, objectives and fields of action, but rather to identify the similarity of the careers selected for this study. Nor is it intended to make comparisons in terms of the content of the subject programs, but in the elements described above, so the criteria for evaluating knowledge, forms of evaluation and pedagogical methods are not part of the comparative analysis either.

Next, the careers are presented by area of knowledge (Health) according to the different selected elements whose elements are the objects of comparison.

4.1. Area of knowledge: Health

4.1.1. Comparison according to the study plan

The areas of training or subjects have been taken from the curricular designs of the careers under study and will be used as elements of comparison between them. Table 1 shows the results. The analysis is carried out by subjects and encompasses the total that each plan contains.

Table N° 1
Structure of the curricula

Racing	Subjects					
	General Training Area	Basic Training Area	Vocational Training Internships	Subject areas	Research	Total
General Nursing	12	11	3	21	4	51
Public Health Nursing	12	11	3	20	4	50
Critical Care Nursing	12	11	3	21	4	51
Maternal and Child Nursing	12	11	3	22	4	52
Obstetric and Perinatal Nursing	12	11	3	20	4	50

Taken from Curricular designs of careers (2016 plan)

With the above table it can be seen that the distribution of the subjects of these careers their greatest academic load is focused on general and basic areas and 40% or 45% is designated to the subjects that belong to disciplinary areas. Under this information, it is comparatively that the careers under study have the same number of subjects, almost equally distributed, the difference is minimal:

(...) Well, as I told you the other time, they are the same professors who elaborate the curricula and sometimes only two professors do them and it is evident that they are not all specialists

and they make the plans according to their experience or postgraduate studies that some have done in hospitals or another institution dedicated to health care (EDir1depenf p3).

Table N° 2
Comparison of curricular meshes

Racing	Study Plan (I to III)	Study Plan (IV to V year)
General Nursing	<p>“This curriculum in its different Nursing profiles: general nursing, Maternal and Child, Obstetric and Perinatal, Critical Care and Public Health, proposes the base of technical scientific knowledge of the Nursing careers organized in the first six semesters” (UNAN-Managua, 2014, p. 17).</p> <p>At the end of the sixth semester, the student can “graduate as a Senior Technical General Nurse, fulfilling the requirements of a 300-hour rotating internship and its graduation modality Examen de Grado” (UNAN-Managua, 2014, p. 17).</p>	<p>“The graduate, if they wish, may continue their studies with a second career, according to their choice during the five years of training and finish the four specialization subjects, three internships and two research subjects” (UNAN-Managua, 2014, p. 17).</p>
Public Health Nursing		
Critical Care Nursing		
Maternal and Child Nursing		
Obstetric and Perinatal Nursing		

Taken from Curricular designs of careers (2016 plan)

As can be seen in the table above, in the nursing careers, mentioned above, it turns out that they maintain, from the first to the third year, the same subjects and it is only in the fourth and fifth year that they differ from subjects and these are minimal in the disciplinary area. Meanwhile, the similarity or equality in these careers lies in the fact that, in all nursing (from first to third year), they consider the mastery of nursing procedures in order to improve the skills of their graduates since the restoration of physical health is promoted. This through scientific research and epidemiological surveillance so that the decisions to be made have a scientific basis based on diagnoses subjected to the rigor of the research processes.

Therefore, these careers should be one and create postgraduate programs (specialty, master’s, doctorate) that, with the solid training of general nursing, strengthen capacities in a specific area, call this maternal and child, Critical Care, among others, since:

The Nurse is empowered with the skills to provide high-quality comprehensive nursing care in a dynamic way to the person, family and community with emphasis on the prevention, promotion and restoration of health, in the care in situations of illness and adversity of the patient. low risk. (Malla curricular UNAN-Managua, 2013)

From this it can be deduced that the collective efforts, in which nurses are developed, are oriented towards the protection and improvement of health, incorporate the reality of people and society, that is, it is helped by a set of other sciences such as health sciences and particularly epidemiology. whose leading role is to evaluate health phenomena. In the words of one of the interviewees, he suggests:

Look..... All the nurses or almost all of them are the same until the third year, others until the first semester of the fourth year and others until the first semester of the fifth year, because in the end they are all nurses and how, to a large extent... they are the same professors who have graduated in general nursing, as this means that there is no difference between one and the other (EDir2depenf p4).

Finally, it can be said that it is in the first semester of the fourth year of the different Nurses, the practices and subjects related to research stand out, in addition to a training seminar subject and a Psychology subject. Therefore, in order to save effort, money and more affordable and contextualized training according to the needs of the country, it is proposed that these majors can be unified and their training can be solid, from the point of view of general skills, in which general skills are strengthened and then, in the postgraduate program, they specialize in a certain area. For example, critical care, gynecology-obstetrician, maternal and child care, and gerontology, among others, who already with the basic and solid training acquired in general nursing have acquired, acquired, or specialized such training.

4.1.2. Comparison according to objectives/competencies

Table 3 presents the general objectives of the careers under study according to the study plan or curricular meshes.

Table N°3
Comparison of objectives/competencies

Racing	Common training objectives	Specialization objectives
General Nursing	To train Nursing Professionals in Public Health with mastery of the essential functions and the art of promoting and restoring health.	To train Nursing Professionals with mastery of basic and complementary procedures of the profession. Train Nursing Professionals to prevent diseases with the organized effort of individuals, families, communities, and intersectoral alliances.
Public Health Nursing		Develop Public Health Nursing professionals with managerial skills that highlight leadership, communication, and negotiation. To develop Public Health Nursing professionals, with the capacity for scientific research and epidemiological surveillance for decision-making.
Critical Care Nursing	To provide safe and quality care in health prevention, diagnosis, treatment, and rehabilitation through the Nursing Care Process. To develop nursing professionals with the capacity to intervene in health situations and their determinants.	To train nursing professionals with skills in Basic, Critical, holistic Care, supported by scientific knowledge and skills, critical, humanistic awareness, respecting multiculturalism, and cultivating the values of the Nicaraguan. To train professionals who use the scientific method and the Nursing Care Process in a critical, reflective, and proactive sense, as basic tools for the solution of the health needs identified in the person, family, and community.
Maternal and Child Nursing		To train Maternal and Child Nursing professionals with scientific, technical, and technological knowledge, for the comprehensive care of women, children, and adolescents. To provide safe and quality care in the prevention, diagnosis, treatment, and rehabilitation of health, contributing to improving the health of women, children, and adolescents.
Obstetric and Perinatal Nursing	To train nursing professionals with the capacity to plan and execute prevention, mitigation, preparedness, and early rehabilitation actions in the face of emergencies or possible disasters.	To train Obstetric and Perinatal Nursing professionals, with mastery of perinatal techniques and biotechnological equipment that allow them to interpret and monitor maternal, perinatal, and neonatal vitality with a vision of teamwork and within the framework of ethical and moral principles. To train professionals in Obstetric and Perinatal Nursing with technical, basic, and complementary scientific knowledge in the care of women and newborns, with quality, and respect for their culture, in the exercise of inter- and multi-professional functions.

Taken from the curricula of the careers under study (2016 plan).

In the table above, it can be seen that these careers have four objectives in common, which, according to the curriculum (2016) are that they are achieved once the third year is completed and, as mentioned above, it is from the fourth year when the specialized subjects of each of the nurses begin. Meanwhile, the objectives (very few) vary according to the nursing specialty, but in a superficial way.

In this sense, it is possible that the latter (objectives or competencies) is an indication of a necessary specialization approach that responds to the levels of training. As interviewee 2 states:

Well, concerning the objectives, the objectives of nursing, almost odes eh... up to the third year they are the same because first general nurses are trained and then in a year and a half or two, they are already trained in the specialty such as maternal and infant care, Critical Care, among others that I no longer remember at this moment what they are, but that is why there are those same objectives until the third year (EDir2dependf p5).

4.1.3. Comparison according to fields of action

Table N°4

Comparison according to fields of action

Racing	Fields of action
General Nursing	Health institutions: Centers, Health Posts and Hospitals, Universities, CDI, and Maternity Homes.
Public Health Nursing	Health institutions: Centers, Health Posts and Hospitals, Universities, CDI, and Maternity Homes.
Critical Care Nursing	Public and private hospitals, health centers, and posts private clinics, NGOs, and maternity homes.
Maternal and Child Nursing	National and departmental reference hospitals. Polyclinics Health Centers Health Posts. SILAIS, Universities, CDI, and Maternity Homes.
Obstetric and Perinatal Nursing	Public Institutions, National and Departmental Reference Hospitals, Polyclinics, Health Centers, Health Posts, SILAIS Maternal homes.

Taken from the curricula of the careers under study (2016 plan)

In this case, in all nurses, according to the study plan or curricular mesh, there are coincidences, about the field of action. In other words, it is suggested that all graduates have the same capabilities, as noted above, so they can work in any institution to contribute to the improvement of their health context. In this sense, interviewee 3 expressed:

Well, how to explain it in another way, simple, well, the nurse is sick for everything and must handle everything and know everything about nursing, that is why they have to know everything and can work in any area, whether maternal, critical care, obstetric care. As I was saying, the nurse will act in favor of the health of a child, an elderly person, or a pregnant woman, he knows everything and we can work anywhere (EDir3depenf p2).

4.1.4. Comparison according to professional profile

Regarding the element referring to the professional profile, the following table 5 presents the profile of the graduate, that is, the characteristics that professionals have at the end of the years of study.

Table N°5
Comparison according to professional profile

Racing	Professional profile
General Nursing	Capacity of care management based on healthy, at-risk, critically ill people or with alterations in their health. General and Critical Care Nurse, maternal and obstetrician.
Public Health Nursing	Capacity of care management based on healthy, at-risk, critically ill people or with alterations in their health. General and Critical Care Nurse, maternal and obstetrician.
Critical Care Nursing	Capacity of care management based on healthy, at-risk, critically ill people or with alterations in their health. General Nurse and Critical Care Nurse.
Maternal and Child Nursing	Capacity of care management based on healthy, at-risk, critically ill people or with alterations in their health. General and Critical Care Nurse, maternal and obstetrician.
Obstetric and Perinatal Nursing	Capacity of care management based on healthy, at-risk, critically ill people or with alterations in their health. General and Critical Care Nurse, maternal and obstetrician.

Taken from the curricula of the careers under study (2016 plan)

Among the profiles of the graduates of the careers under study, there are coincidences in their entirety and they focus on the commitment to their personal development, their ethical being and scientific rigor in the resolution of problems, responsibility with society and with their environment. It also suggests that a graduate of any of the nurses, the graduate will be able to plan, design, and execute learning sessions considering the characteristics of the students. It

is specified textually that graduates of these careers can develop in any environment and in any health situation that arises.

In this sense, interviewee 1 expressed:

Well, look, nurses can and have the same capacity and we can do everything and anywhere and with any patient. Notice the fact that maternal nursing, for example, is a specialty, I agree, because these programs do not allow you to be either a good general nurse or a good maternity or obstetrician (EDir1depenf p6).

5. CONCLUSION

The comparative analysis carried out made it possible to verify, according to the selected elements, that each curricular plan has a great similarity. From a strategic point of view, these differentiating elements fall within the category or elements that each major should have in its curricular design or mesh.

About the curriculum or study plan, the subjects contemplated in this have been organized in such a way that the first years predominate training courses and general competencies, while from the fourth year onwards the subjects are mainly of the specialty. There is also evidence of the existence of a higher percentage of basic training subjects and the lowest related to subjects of the specialty.

In the same way, the objectives proposed in all the careers analyzed in this study showed that they remain the same until the third year and some change in the fourth and fifth years. Likewise, with regard to the professional profile and fields of action, it was found that all graduates, from any nursing, have the same competencies and can perform in the same positions and jobs.

Due to the simplicity of the study, comparisons, and analyses, the data extracted from the curricular meshes allow an analysis of the current general situation of the careers and to identify the external conditions of the careers and their acceptance in the workplace, professional and skills according to the demands of the context.

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