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Quality Assurance in the Career of Nursing

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1. Introduction

Assessing the quality of university education has been presented as one of the main issues on the agenda of education reforms worldwide (Villanueva, 2004). Evaluation and accreditation processes as tools emerge to regulate the system of higher education from the perspective of the quality of educational services offered.

Creation and promotion of accreditation and evaluation mechanisms are important to ensure and promote the quality, comparability and transparency of the educational offer strengthening national and international recognition of educational systems and institutions (Mercosur, Estados asociados 2008).

Ensuring quality is a combination of planned and systematic actions that are necessary to provide the adequate reliability that a product or service meets the requirements given for quality, which should be supported in meeting the expectations of customers. Quality assurance is based on the implementation of a documented system of work, establishing clear, fixed and objective rules including all aspects related to the operational process. This process begins with the design, followed by planning, production, presentation, distribution, statistical techniques of control and staff training.

The complexity of the quality assurance system is that over the entire operating process a rigorous control should be kept over the correct application of the rules or technical specifications, methods and philosophies of quality

The quality assurance becomes important in higher education, because through this nursing schools provide training for highly skilled professionals who respond to country needs and protects the rights of citizens. It is here that according to UNESCO quality must be combined with the relevance and impact because it is not possible to conceive as a quality university the one that has no relevance to their social environment (Aguila, 2005).

In this chapter we develop the essential topics that should be considered by the various participants in the teaching-learning process of nursing professionals at university level.

2. Chapter objectives

1. To analyze the basic principles of the concept of quality assurance in university education in nursing.
2. Know the principles of quality assurance in the training of nursing professionals

3. Recognize the importance of the process of accreditation for quality education in the career of nursing.
4. Identify the standards and indicators to be considered for the management of quality assurance for nursing schools.

3. Initial definitions

Assurance: Specialized financial dictionaries define assurance as the "branch of accounting which aims to improve the quality of information to reduce business risk. Assurance extends beyond the financial information, seeks to verify the facts, processes and even qualitative information that relates to business practices and customer satisfaction.

Quality Assurance: It is a systematic, ongoing and continuous review, analysis and evaluation of the level of compliance with the standards set at local, national and international level.

Accreditation systems: The accreditation system is defined as a set of policies, strategies, processes and organizations whose main objective is to guarantee to society that higher education institutions are part of the national system that meets the highest standards of quality and the training of professionals. Accreditation is a witness of the State on the quality of a program or institution based on a prior assessment in which the institution, academic communities and Accreditation Agencies interfere.

Standards: These are conceptualized as the clear definition of a model, criterion, or rule of the minimum acceptable requirements for the operation of specific processes, to ensure quality in the provision of educational programs. The standards clearly state the expected behavior and desired processes and are used as guides to evaluate their performance and achieve continual improvement of services.

Indicators: Indicators are measures that quantify and assess the status of processes within an institution. They represent summary measures that capture relevant information on various attributes and dimensions of the evaluation processes and system performance.

Methods of evaluation: Defined as the methods for assessing processes by collecting objective information both quantitative and qualitative in a systematic way to inform any kind of decision. In the university context they can be defined by a variety of forms, types and evaluation procedures according to the different objectives, evaluation units, agents or consequences (Review and license states, regional accreditation agencies, self-study, Performance Indicators, state Testing for validation of professional qualifications, cyclical review programs (mandatory or voluntary), Specialized accreditation of professional programs, institutional assessment).

Higher/University Education: The education provided by universities, a social right, as such, is opposed to education understood as a privilege and it is understood as a "public good" that will benefit the community as a whole. It helps to train people in the values of freedom, social justice, solidarity and human rights, whose mission, task and results should be in the service of harmonious development of man and society, so first term, must respond and be accountable to the national community that surrounds and sustains it" (Ramirez, Ayarza et al, 1993). This leads to the evaluation of the work of institutions of higher education and the respective quality assurance, both the university as an institution and its academic programs.

4. Conditions in the quality assurance of universities worldwide

In the last decade, the culture of evaluation of university education has become a fundamental role in ensuring the quality of education at the international, regional, national and institutions from the voluntary self-assessments.

Quality assurance has been defined by many authors, however, to consider the terms of this chapter to that systematic, ongoing and continuous review, analysis and evaluation of the level of compliance and standards set at local, national and international level (Konrad, 2011).

Faced with the challenge of globalization, concern about the comparability and convergence among the various systems of higher education acquires special relevance for Educational Integration in Latin America. The strategy to facilitate the comparison of regional training programs is to establish objective processes of quality assurance in order to increase mutual trust among institutions of higher education (UNESCO, 2009).

Since the early 90's in response to the urgent need to develop strategies for quality assurance of educational provision/offer at the regional level, National Accreditation Agencies, Networks, Agencies and Regional Accreditation mechanisms emerged.

The traditional cycle of continuous improvement applied in different organizational systems is undoubtedly applicable as a strategy to improve the quality of the educational process at all levels.

4.1 The circle of Deming

The circle of Deming or PDCA (Plan, Do, Check, Act), is a strategy of continuous quality improvement and it is accomplished in four steps (Figure 1). They are then briefly assessed the development of the four phases of quality circle (Hernandez, Rodriguez, 2006).

4.1.1 Step 1, planning

At this step, we have the following activities:

- a. First, it is the vision or goals, which is to establish the purpose of improvement.
- b. Once set a goal, the person makes a description of his / her current situation, referring to all aspects and determines the areas that have problems or enhancements, making a selection of the most outstanding and greatest impact.
- c. Determine the definition of a certain theory of solution in order to bring the variable to improve at a peak.
- d. Finally, we define a work plan to carry out an implementation plan to test the theory of solution

4.1.2 Step 2, make

At this step, we carry out the planned work plan, establishing a tracking control to be sure of developing the program. To develop the implementation, there are tools such as Gantt chart or checklist of tasks performed, leading to check the progress of the process.

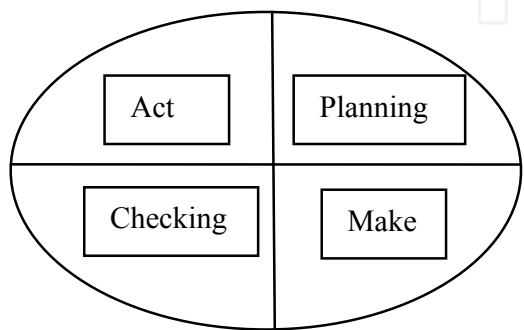
4.1.3 Step 3, checking

At this step the results are validated and a comparison with the planned is carried out.

4.1.4 Step 4, act

At this final step the cycle of quality concludes and it is checked if verification was successful and achieved the desired benefits, it is vital to systematize and make a documentation of the changes made to secure profits.

The quality circle becomes a process of continuous improvement that should be used systematically, becoming a permanent process of Planning, Doing, Checking and Acting.



Source: Supporting empowerment with Deming’s PDSA cycle. Empowerment Organizations, MCB University Press. 1995.

Fig. 1. The deming circle

5. Quality in higher education for nursing schools

International practice recognizes various concepts of quality that lead to different types of evaluation and accreditation. Basically a distinction between: (i) quality as excellence as defined by the highest standards, (ii) quality and ability to meet the stated mission of the institution or program, (iii) quality of learning outcomes achieved by students; (iv) quality threshold as defined according to criteria and standards, (v) quality and continuous improvement where the center of gravity lies on the organizational learning, (vi) quality and value for money obtained, a concept used in situations where governments face fiscal constraints or seek to raise the efficiency of institutions or programs (Latrach, Soto et al, 2009).

The quality of university education is a philosophical concept; definitions vary and in some ways reflect different perspectives of the individual and society. In a democratic society, where there must be room for that many people to think differently, there is no single correct definition of quality, it is a relative concept that depends on the individual who uses it. To have a set of criteria from the perspective of different groups and no and not supporting a single definition of quality can provide a practical solution to a highly complex philosophical issue, not because it lacks an underlying theory, but because different groups have the right to bear different perspectives. This makes us understand that the concept of quality in education has many definitions, all related to different interpretations concerning the teaching-learning process. As it is obvious to conclude that it is not possible to choose one and take it for universally valid, since this type of definition does not exist, but it is necessary to refine the definition and we must align with the mission, vision and exit profile

of the institution and the school of nursing without forgetting the following premises in relation to education delivered: 1) meets the expectations of the graduate, 2) meets the expectations of potential employers; 3) enables the practitioner to be able to make an effective contribution to society (CNA, 2008).

As the quality of care, university quality has dimensions defined and evaluated in different systems of accreditation of university quality; these are relevance, effectiveness, availability of resources, efficiency, effectiveness and processes, generally evaluated by the following components: 1) characteristics of the organization, 2) teaching-learning process, 3) human Resources, 4) Infrastructure.

6. Accreditation system for schools of nursing

The accreditation process is a process that contributes significantly to the quality management of the university and the school nurse, whose installation should be gradual and constant over time. To display the management which we aim to some critical factors should be considered (Garcia, Cordero et al, 2008).

- Installing a policy of institutional quality, which is an explicit definition of the core guidelines of the institution, incorporated into its mission and vision, which consequently leads to a cultural change.
- Prioritization of quality issues over others, in order to reorganize institutional structures, leading to financial and human resources development of the plan to run.
- The management of the institution should lead the establishment of a culture-based quality improvement processes. Involve all stakeholders in the establishment "Quality is not the responsibility of the heads, but everybody else's"
- Development of a formal quality structure with a resolution of hours and duties.
- The system incorporates incentives for prestige among the institutions and these generate competition to offer better benefits and services, which will directly benefit the users, who will be more satisfied with Institutions that present the highest quality standards.
- When an entity develops process improvements aimed at achieving compliance with accreditation standards, this entity gets an increase in the probability that the customer is treated with full respect for their rights.

We will understand accreditation systems as the process by which an educational institution or program provides information about its operations and achievements to an external body which assesses and judges independently, this information is reflected in a public statement about the value or the quality of the program or institution. Accreditation is not permanent, but is granted for a period that can vary depending on years of the accreditation system selected, from which it can be renewed or withdrawn, based on the results obtained in the process of reassessment.

Consequently, the university accreditation is seen as a mechanism by which the educational community establishes and maintains self-regulation, and guarantees to the direct and indirect users of the services offered, their integrity, relevance and quality at levels that make it worthy the public trust and respect through their ability to create cultural, scientific and technological innovation and training of human resources (Latrach, Soto et al, 2009).

The evaluation and accreditation are related processes whose practice is intertwined, as shall be credited as a result of a process of evaluation and monitoring, however more than a diagnosis that leads to action by the institution itself. The accreditation is proof of credibility by the society and demanding public of educational services.

Accreditation systems for nursing schools generally have three stages (Figure 2): 1) Self-assessment process, 2) Process visit peer reviewer, 3) Final report of the accreditation. Accreditation is an improvement strategy, where the preparation for this is the beginning of the process. Processes are the unit of change, the main element "institutions do not change unless they change their processes.

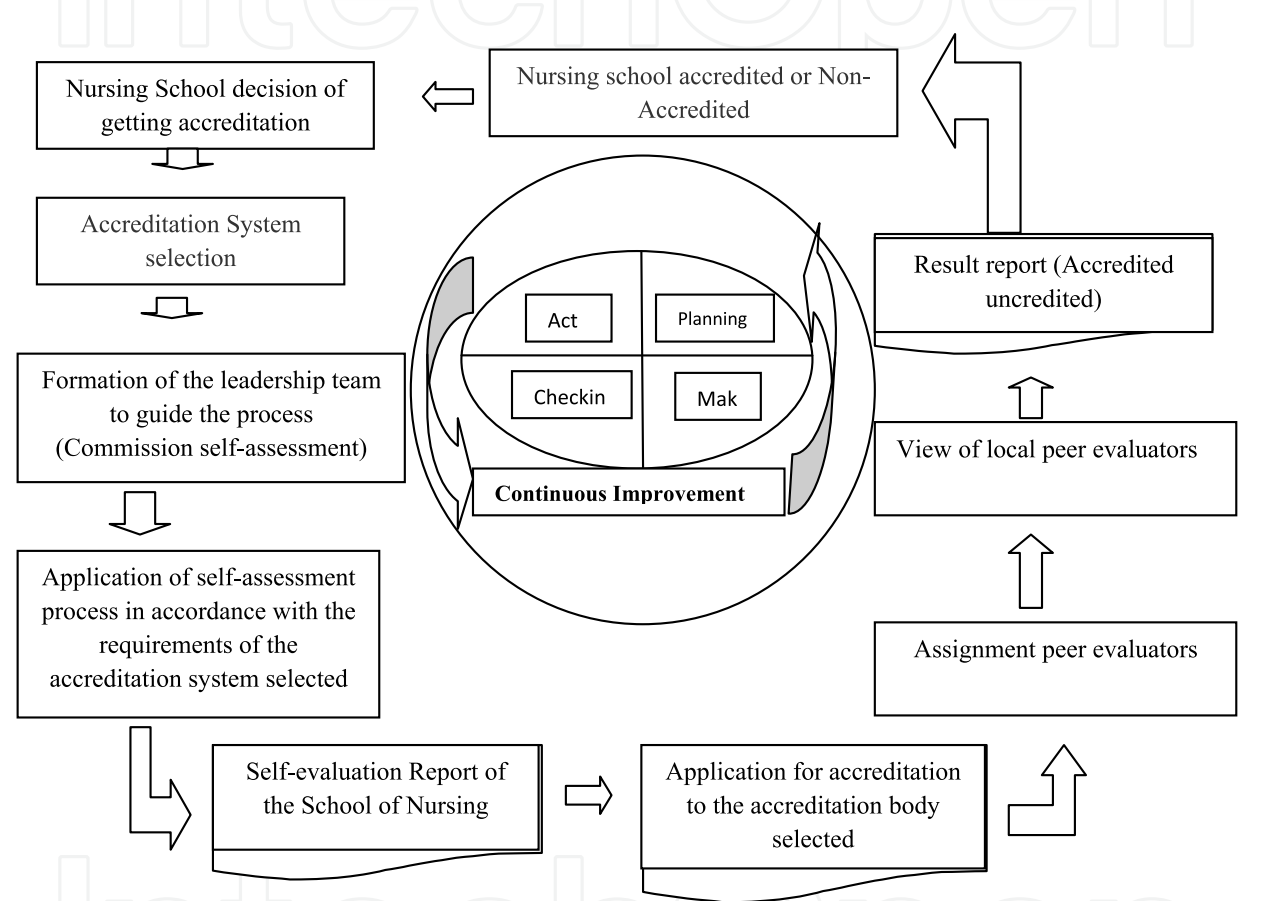


Fig. 2. A process of accreditation

7. Proposed indicators

The requirements of the different dimensions of quality applied to university education, not only must identify and understand the behavior of the variables that influence this process, but also determine the minimum level of quality and productivity necessary to ensure effective and efficient higher education, and secondly the continuity and development of the institution.

The level of quality is a concept that can be measured and evaluated by comparison with peers, perceptions of users and stakeholders, among others. The quality assessment should be objective and absolute, which requires the design of different control mechanisms by building standards and indicators that allow linking operation, resources and outcomes for

activities, events, processes, organizational units and other components of the institution of higher education.

The quality of the educational process is evaluated through the so-called "indicators", defined as data that "suggest" how they develop different activities derived from the educational process, compared to how they should be done. Therefore, an indicator is a characteristic or variable that can be measured. The construction of an indicator means to account for a phenomenon in education, by absolute numbers, rates or more sophisticated indices. The indicators are classified into three indicators of structure, process and outcome.

The objectives of using standards and indicators for the management of the nursing schools are: 1) Identify problem situations or likely to be improved, 2) Incorporate improvement cycles to solve the identified problems, 3) Internal comparisons over time, 4) Comparisons with other institutions. These indicators will: a) Measure "how well executed", b) Develop evaluation criteria; c) Design a program of continuous improvement.

7.1 Attributes of good indicators in education

The quality of an indicator, although much depends on the quality of the data from which to build (components), also depends on the quality of information systems or information sources. You should also enjoy certain features, outlined below (Valenzuela, 2005).

Attributes of good indicators in education
Be useful: Gives answers and is designed for a specific purpose.
Validity: Measures what it intends to measure.
Reliability: The same results are reproduced if the measurement is repeated under similar conditions.
Specificity: Measures only the phenomenon being measured.
Sensitivity: Measures the changes in the phenomenon being measured.
Measurability: Based on data available or easy to obtain and easy to use. It is imperative to collect a limited amount, but feasible and valid rather than trying to complicate the indicators by systems impractical or complex parameters.
Relevance: Able to give clear answers to relevant issues embedded in health policies.
Cost Effectiveness: That the investment in time and other resources needed to construct the indicator is justified by its use and results
Integrity: Means that the required data are complete.
Internal Consistency: Refers that in the indicators, seen alone or in groups, the values are consistent and sensitive to change
Transparency: Refers to be easily understood and interpreted by users
Dissemination: To be accessible to users through periodicals
Dynamism: To update and correct as far as the environment changes. This may change in terms of the specific conditions described by indicators, data availability, scientific knowledge, or in levels of interest and needs of users.

Table 1. Attributes of good indicators in education

Once the indicators are established, they must be subjected to permanent monitoring of the quality and establish a mechanism to disseminate them, including the timing and frequency of compilation.

Structure indicators measure the quality of the characteristics of the framework in which services and state resources to provide, allow to assess how the academic unit and the University are organized and equipped, allowing to determine if resources are available and organized to facilitate the educational process. The evaluation of the structure involves:

- Material resources such as facilities, equipment and monetary budget.
- Human Resources: Number and qualifications of personnel
- Institutional or managerial aspects of management: Documentation relating to existing processes and organization

The evaluation of the structure indicators is easy, fast and objective because it encompasses a series of static characteristics and previously established, however, the most perfect structure does not guarantee the quality of management of the academic unit or university.

Process indicators assess and measure the quality of the process, defined as a set of intertwined actions with a purpose that lead to a result. These focus on how care is given, measured if all the steps of a process are done correctly, these indicators focus on the "how" the educational process is carried out, evaluate and measure whether all the steps of a given process are carried out as correct.

Outcome indicators assess the expected effect, that is to say, they allow an analysis of the results (cohort graduation rate) refer to the benefit achieved in students, providing opportunities to assess efficacy, effectiveness and efficiency of the program evaluated

Here, a proposal for some indicators of management structure, process and outcome to be considered by nursing schools to determine the quality of training will be evaluated.

INDICATOR NAME	STAGE OF THE PROCESS EVALUATED	TIPE INDICATOR
Admission Rate of Return	Sign up for students	Process
Admission Offered Rate	Sign up for Students	Process
Satisfaction of students, teachers, employers.	The whole process of training	Process
Rating support services	The whole process of training	Structure
Cohorts for performance	The whole process of training	Process
Retention cohorts	The whole process of training	Process
Cohort dropout rate	The whole process of training	Process
Repetition rate by cohort	The whole process of training	Process
Evolution for Teachers day academic hierarchies	The whole process of training	Structure
Teacher retention rate	The whole process of training	Structure
Cohort graduation rate (according to the actual number of years program)	Completion of the educational process	Result
Average time spent by cohort	Completion of the educational process	Result
Employability rate of graduates per year	Completion of the educational process	Result

Table 2. Indicators of management

8. Conclusions

Nursing is a profession and discipline deeply rooted humanist, whose essence is the care of people. Its foundations give support to a practice, profoundly humanist, which has evolved with scientific and technical progress. In keeping with its purpose to improve, exercises the power that tends to quality assurance systems in health services, seeking to satisfy the needs of society. Thus, quality has become an essential element of health services considering the fundamental requirement for the training of nursing professionals.

The accreditation of the School of Nursing is the result of a process of evaluation and systematic monitoring and voluntary compliance of university functions, which allows getting accurate and objective information on the quality of the academic unit evaluated. To certify the quality of trained human resources and the various educational processes taking place in it. It is the formal and public recognition given to a nursing school that has made significant progress in fulfilling its mission and stated goals, and meets an agreed set of criteria, indicators and standards of relevance and quality.

This activity is based on the constant search for excellence and represents the collective effort of all participants in the teaching-learning process to be accountable to themselves and society, on the appropriateness, relevance and quality of his being and institutional work.

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The purpose of this book is to present new concepts, state-of-the-art techniques and advances in quality related research. Novel ideas and current developments in the field of quality assurance and related topics are presented in different chapters, which are organized according to application areas. Initial chapters present basic ideas and historical perspectives on quality, while subsequent chapters present quality assurance applications in education, healthcare, medicine, software development, service industry, and other technical areas. This book is a valuable contribution to the literature in the field of quality assurance and quality management. The primary target audience for the book includes students, researchers, quality engineers, production and process managers, and professionals who are interested in quality assurance and related areas.

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