

Evaluation of teacher competencies of nursing to managing educational programs for adults

Avaliação das competências dos professores de enfermagem para administrar programas educativos para adultos

Evaluación de las competencias de los profesores de enfermería para la gestión de programas educativos para adultos

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ABSTRACT

Objective: To evaluate the performance that nurses, nursing teachers, assigns itself the competencies to administer educational programs for adults. **Methods:** Descriptive study, comparative, transversal and quantitative, developed with 226 nurses teachers of undergraduate courses in nursing relating to the state of Sao Paulo. Data were collected with Likert scale, launched in *Excel*® spreadsheet and analyzed by descriptive statistics and nonparametric tests of Wilcoxon and Friedman. **Results:** The population was predominantly between 46-55 years (87/38,49%) were women (198/87, 61) and masters (180/79, 65%). Teachers considered themselves distant from competencies which hoped to achieve, how to manage programs, what requires domain policies, budgets and marketing was the list of lower performance compared to others. **Conclusion:** Administer educational programs for adults is still something unexplored and little experienced by these teachers.

Keywords: Nursing; Education, Higher; Faculty, Nursing; Models, Educational; Professional Competence.

RESUMO

O objetivo deste estudo foi avaliar o desempenho que o enfermeiro docente de enfermagem atribui a si nas competências para administrar programas educativos para adultos. **Métodos:** Estudo descritivo, comparativo, transversal e quantitativo, desenvolvido com 226 docentes enfermeiros de cursos de graduação em enfermagem paulistanos. Os dados foram colhidos com escala de Likert, lançados em planilha *Excel*® e analisados por estatística descritiva e testes não paramétricos de Wilcoxon e Friedman. **Resultados:** A população tinha predominantemente entre 46 e 55 anos (87/38,49%), eram mulheres (198/87,61) e mestres (180/79,65%). Os professores consideraram-se distantes das competências que almejavam alcançar, como administrar programas, o que requer domínio de políticas, orçamentos e *marketing*, o rol de mais baixo desempenho em comparação aos demais. **Conclusão:** Administrar programas educativos para adultos ainda é algo pouco explorado e pouco experienciado por esses docentes.

Palavras-chave: Enfermagem; Educação superior; Docentes de Enfermagem; Modelos educacionais; Competência profissional.

RESUMEN

Objetivo: Evaluar el desempeño que el enfermero docente atribuye a si en las competencias para administrar los programas de educación para adultos. **Métodos:** Estudio descriptivo, comparativo, transversal y cuantitativo, llevado a cabo con 226 profesores enfermeros de cursos de graduación en enfermería de São Paulo. Los datos fueron recogidos mediante una escala tipo Likert, introducido en la hoja de cálculo *Excel*® y analizados mediante estadística descriptiva y pruebas no paramétricas de Wilcoxon y Friedman. **Resultados:** La población tenía predominantemente entre 46-55 años (87/38, el 49%) eran mujeres (198/87, 61) y maestros (180/79, el 65%). Los profesores se consideraron lejos de las competencias que pretendían lograr, como gestionar los programas, lo que requiere el dominio de las políticas, presupuestos y *marketing*, que fue la lista de menor rendimiento en comparación a los demás. **Conclusión:** Administrar programas educativos para los adultos es todavía algo poco inexplorado por estos maestros.

Palabras-clave: Enfermería; Educación Superior; Docentes de Enfermería; Modelos Educativos; Competencia Profesional.

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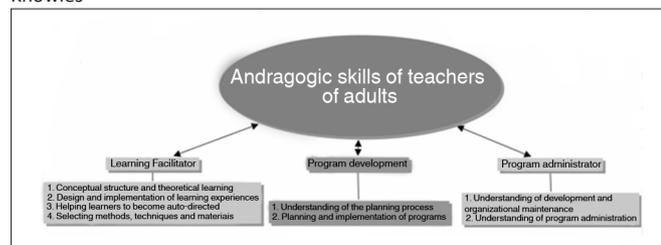
INTRODUCTION

The process of adult education has always been articulated to social transformations, to the evolution of man, to the perception that they have about themselves and their personal growth. The Andragogy is a theory that arose in this context and devote itself in 1968, when Malcolm Shepherd Knowles used it to name the theory and practice of adult education^{1,2}.

In Latin American countries, the andragogy use began with the project of the W. K. Kellogg Foundation, called "A New Initiative in the Education of Health Professionals: Union with the Community - UNI", which encouraged the exchange of teaching methodologies among Latin American countries, from the 1990³, covering nursing courses. Research on andragogy in health and nursing have demonstrated that it is an impacting theme and should remain in the spotlight in the future^{4,5}.

In 1981, Knowles published an instrument called - "Self-diagnostic Classification Scale for Adult Education", based on three categories of competencies that the teacher should develop to work with adults: learning facilitator, developer and administrator of educational programs for adults². (Figure 1). In this text, is addressed to the teachers competence to administer educational programs for adults.

Figure 1. Concept map about the skills for adult education, according to Knowles



Source: Draganov PB. Assessment of Skills Andragogical Nurses Faculty of Undergraduate Nursing in São Paulo. [Dissertation]. São Paulo: Federal University of São Paulo, School of Nursing, 2011. 117 p.

The category of teachers skills to administer educational programs for adults involves understanding the organizational development and maintenance and understanding of program administration. Educational programs for adults, includes the provision of procedures and resources to facilitate that learners acquire skills¹. Each category is subdivided in skills, which will be discussed below.

On dimension of understanding the organizational development and maintenance, the adult educator should describe and apply theories and use research findings about behavior, management, and organizational renewal. The formulation of internal policies that convey the mission definition, social philosophy, commitment to educational organizations

and the assessment of organizational effectiveness, as well as the conduct of continuous self-renewal processes are also required skills in this area. The mission must be described with clarity and conviction, philosophy must be committed to the value, human growth and self-realization².

Still in this area, the administrative decisions should be shared and decentralized, being convenient to the committees formation, councils and task forces. To select, supervise, train and evaluate staff performance, Knowles suggests that must consider the enthusiasm to teach, success in the operated area, the ability to learn, friendly personality, humble and humorous, the leadership, the creativity to create methods, techniques and materials and adapt them to diversities and require that dominate the differences between adults and children, expressing interest in working with the education of the first^{1,2}. Finally, know how to analyze and interpret the laws that affect the adults education, to describe financial policies and practices in the area of adult education and use them as reference guides to establish their own policies and practices are key competences to the manager of adult education services².

Another dimension in this area involves the understanding of the administration of adult education programs, that includes the design, implementation and monitoring of financial programs, including those with limited budgets, budgetary limits must be clear and detailed, passive external funding and skilled administrators to obtain other sources of income². Handle modern approaches to adult learning and influence political change are fundamental to the administrator, who must focus on maintaining and individual developing, organizational and procedural. Therefore, he must also have skills in educational marketing (promotions and advertising strategies, sponsorship and funding sources). In this dimension, is also fundamental to share ideas and decentralize power, thus ensuring the diversity of visions which facilitate obtaining better results^{1,2}.

Based on the above considerations, questions: the nurse teaching of higher-level schools of São Paulo dominates the necessary skills to administer educational programs for adults andragogic perspective?

It is worth noting that the growth rate of nursing training schools in Brazil has increased considerably since 1991⁶. According to the Education Ministry (MEC)⁷, from 1991 to 2010, in São Paulo, there was a growth of 645.28% in the number of courses and, as a consequence, the number of teachers has increased to meet the demand. It has been questioned if this surge was enough to encourage these teachers to graduate with the entire cast of the needed skills to educate adults, in nursing graduation, according to the curriculum guidelines of the nursing degree course⁸, which may also have driven the search for teacher education.

The structure of schools is also a concern, since the MEC data, with respect to the National Examination Performance of Students (Enade), allowed to observe that there are problems in the nurses graduation, whereas the overall average of Nursing (31.9%) was lower than the overall average of Health (32.3%), in 2004⁷.

The behavior of the Enade⁷ of 2007 was similar to 2004: the general result showed that the general average yield was below of the desired, indicating worrying situation and need for reflection on the effectiveness of educational practices. The Enade notes aim to reflect students performance and the mastery degree of the various competencies, knowledge and content laid down in the National Curriculum Guidelines⁸. Low grades can indicate professional graduation of nurses beneath of the MEC recommendations and the required skills to act professionally. Later, this graduation will surely be reflected negatively on the performance of the work processes of the nurse, and their formation can only give, with quality, in schools that have this concern.

Schools that promote good graduation are represented by people who wish to teach (teachers) and others who want to learn (students); for this reason, look for the teacher and for the skills that must stop, in the current context, is so important. Good nurses are graduated by competent teachers, in the case, holding, and others, the competencies to develop educational programs for adult learning.

Finally, it should be noted that there is, in Brazilian literature, few studies dealing with teachers' skills to develop educational programs for adult education. In nursing, there are no studies that measure the competencies of teachers nurses working in nursing degree in adult andragogic perspective, with this focus. Thus, it is justified the accomplishment of the present survey, whose objectives are: 1) Characterize the population of nurses nursing teachers acting in classroom courses in nursing degree in São Paulo in 2010; 2) Identify how the nursing teacher of nurse assessed the competence that has to administer educational programs for adults and which he considered ideal.

METHOD

Descriptive and comparative study, transversal, with quantitative approach, which was developed with the Degree Courses in Nursing in person, authorized and functioning in São Paulo in 2010. According to MEC⁹ data, that year there were 27 courses in this condition and agreed to participate in this study, 20 of these institutions of higher education.

The study population included nurses teachers of Nursing degree in-person courses located and working in the city of São Paulo who had at least one nursing degree in-person course with at least two years of operation and in activity, and

authorize, through its directors/coordinators, teaching staff approach. Teachers that composed the population signed a free informed consent (TCLE), were not separate from their activities and exercising the teaching activity, at high level, for a period exceeding six months.

The contact with the teaching staff started with the information provided by the coordinators of the courses, about the total number of teachers, totaling 653 subject. 653 questionnaires were distributed and returned 226 (34.61%) answered instruments with TCLE signed.

The data collection instrument was composed of two parts: population characterization data and measurement scale Likert type, on competencies for the role of the educator/trainer of adults. The scale used was proposed and tested by Malcolm Shepherd Knowles, and permission for its use is guaranteed without restrictions¹. Named "Self-diagnostic Classification Scale of Competencies for the Educator of Adults Role", the instrument consists of three clusters of competencies which add up to 54 assertions. Grouping to develop educational programs for adults consists of domains - I - understanding of the planning process with four skills and II - planning and implementation of programs, with five abilities.

Every skill description corresponded a measurement scale of six grades, in which the faculty research fellow noted, using the letter "A", the point at which evaluated to meet currently, and with the letter "D", where he wished to be. This was a self assessment of the current and desired skills of the teacher, to develop educational programs.

Data collection began in June 2010, after obtaining the consent of the directors/coordinators of courses and by signing the TCLE, by teachers, and ended in February 2011.

The information was collected by the instrument described and transcribed for a database built with Excel[®] tool, composed of 119 columns, with the population characterization data and scale results. After filled the bank, the worksheet data were transported to software for statistical treatment called Minitab[®] 16 version. In this text, only the characterization data of the population and part of the scale with regard to competences in focus were reported. The others can be measured in Draganov¹⁰.

Data analysis of population characterization of the study employed descriptive statistics - simple frequency (absolute number) and relative (percentage), central tendency measures and variability, average, median, standard deviation, minimum and maximum value.

The data of Auto-Diagnostic Assessment Scale for the Educator of Adults Role were treated in three stages, with a focus on educational programs administration: 1) Current and desired levels of teachers nurses for each skill that comprises an area of competence in focus, 2) Current and

desired levels of teachers nurses for each of the domains of competence in focus and 3) Current and desired levels of teachers nurses from all fields at once. Thus, each row of the scale was handled separately, using descriptive statistics - sum, proportion (%), average, standard deviation, minimum, median and maximum and, after, for the comparison between current competence levels ("A") and desired ("D"), was used the non-parametric test of Wilcoxon for the first and second stage, and Friedman at the third. The significance index, which determined if the degree of difference among them was relevant or not, was considered for the values of $p < 0.05$ or 5%.

The project followed the 196/96 Resolution of the National Health Council of the Health Ministry (MS), of 1996, having been submitted to the Ethics Committee in Research with Human Beings at the Federal University of São Paulo (UNIFESP), being approved under number 1620/10.

Finally, the data that resulted from the described analysis were confronted with scientific literature on the subject for discussion of the results.

RESULTS

The teachers were between 27 and 67 years, 119 (52.65%) were between 41 to 55 years and were, for the most part, 198 (87.61%), female. A good part, 158 (69.91%), worked from 31 to 40 hours a week and had six to 10 years of teaching. 176 (77.88%) worked in theoretical and practical disciplines. 122 (53.98%) graduated in public school, 201 (88.94%) have made specialization, mainly in Education, Administration and Maternal and Child Health, 180 (79.65%) did master, mainly in Adult Health Nursing and also in Administration, 77 (34.07%) teachers were doctors, especially in Nursing, only three (1.33%) declared to be free-teachers and 28 (12.39%) attended another graduation. This data can be appreciated in Tables 1 and 2.

The results (Figure 2) allowed to note that, with respect to the administrator competence, in the domain "understanding of organizational development and maintenance" (I), the greatest skill and also the greater desire to develop was to evaluate the performance of the team (A average = 3.16 and D average = 4.69), and the lowest skill, and also the lowest desire was to describe financial policies and practices in the adult education area and use them as reference guides to establish the own policies and practice (A average = 2.16 and D average = 4.36). With respect to the domain understanding of business administration programs (II), the lowest skill and also the lowest desire has been to plan and use promotions, advertising and public relations strategies appropriately and effectively (A average = 2.14 and D average = 4.26). The greatest ability, and also the greatest desire was to "design and implement programs within a limited budget structure" (A average = 2.71 and D average = 4.53).

Table 1. Teachers nurses according to socio-demographic variables, practice time, working hours, type of ministry discipline. Sao Paulo, Brazil. 2011

Variable	Frequency (total = 226)	Percentage (%)
Age group		
41 to 55 years	119	52.65
Sex		
Female	198	87.61
Working hours and teaching time		
31 to 40 hours/6 to 10 years	158	69.91
Discipline type		
Theoretical and Practical	176	77.88

Table 2. Teachers nurses according permanent training and education. Sao Paulo, Brazil. 2011

Variable	Frequency (total =226)	Percentage (%)
Educacion		
Public School	122	53.98
Private School	101	44.69
Not informed	3	1.33
PG <i>Latu-sensu</i>	201	88.94
PG <i>Strictu sensu</i>		
Master's Degree	180	79.65
Doctorate	77	34.07
Free-teaching	3	1.33
Other graduations		
Yes	28	12.39

The relationship between the issues of each domain has identified, the relationship between mean and median of each, which teachers were beneath they wanted to achieve (0.0000 significance index), focusing the answers on Likert scale in three to five for current and desired.

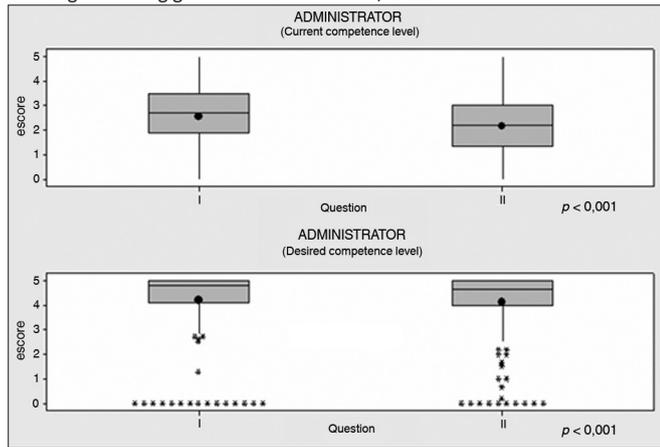
The significance index in the comparison between the two domains showed that there were important in the relationship between the areas of competence of adult educational programs administrator.

DISCUSSION

Population Characterization

It is predominantly a female population, middle-aged, with post graduation, which operates under approximately 40 hours per week and providing theoretical and practical disciplines. Nursing presents predominance of women and

Figure 2. Results on competence Administrator, the relationship between areas, current and desired level for adult education, according to the teachers nurses working in nursing graduation in São Paulo, 2011



it was expected that the teachers of this area were of that sex. The fact that a good part be middle-aged can relate to the need for high level teaching require professional experience prior practice and requirement for admission into postgraduate career. Although not all graduates of public schools look for teaching career, having formed in these schools may have offered development opportunities in research more numerous than those who were graduated in private schools where there is not always tradition in research and pos graduation. The weekly hours amount corresponds to the working hours of most Brazilian workers and meets the legal requirements.

The results of the titration data of the subjects of that research showed prescription compatibility law of Guidelines and Bases for National Education no. 9394/96 and Decree No. 2.207/97⁸. This post, it is understood that teachers are legally qualified to exercise the teaching, because they meet the training requirements. In this context, what qualifies the teacher for teaching exercise is the strict sense and pos graduate, in this respect, the academic world reveals the largest value that gives research activities, compared to the teaching activities.

It is important to note that the preparation for the exercise of teaching involves different skills to the development of research activity and that activity is more valued in the university culture. So thinking, can imagine that the teacher in focus have followed professional models of teachers of their personal history, have based on the experiences that experienced throughout his student training and therefore add more value to research and not pursue the innovation in teaching, because they are rare teachers who have experienced, as students, innovative teaching and learning experiences¹¹.

With regard to the skills to develop adult education programs, for all domains, most teachers declared a moderate

performance and maximum desire to develop. Then will be discussed each domain.

Competencies for administering adult education programs

Understanding of organizational development and maintenance

This dominion brings together ten skills. Most of the teachers stated current moderate performance and maximum desire to describe and apply behavioral theories, managerial and organizational renewal, formulate administrative philosophy and adapt it to various situations, formulate policies that clearly define the mission, philosophy and educational commitment, assess the organizational effectiveness and guide long-term processes and auto renewal, plan with others, share responsibilities and decision making, select, supervise and offer training, evaluate the performance of the team, analyze and interpret laws about adult education, describe and use financial policies and practices and perform role of change agent.

A large part of the subject of the present research postgraduate (wide and strict sense) in administration, and was expected to dominate the managerial issues; however, the majority claimed to have only domain of administrative skills applied to teaching.

The education programs administration is different from directors of nursing services and assistance, the latter, inclusive, are worked in training. The administration of educational programs is a complex job and that contains matters which are not covered regularly in the training of masters and doctors. In addition, the teacher does not share the same autonomy that a nurse, in the performance of work processes to assist and manage. Thus, administering educational programs is an unusual theme in both graduate disciplines, as in professional practice of teachers. Maybe that's the reason why the teachers declare moderate domain of that abilities group, even large part having training in administration.

The competencies grouping to understand the organizational development and maintenance provides skills with behavioral, managerial and organizational renewal theories. On this competence, literature¹² brings some important contributions, when affirms that most of adults teachers focus on interpersonal skills, without being culturally sensitive and psychologically aware. Teacher development programmes should consist of modules for self-concept development, management of psychological skills, so the teacher can understand the student and stimulate to discover their potential and develop skills. The formation of groups to adapt to changes that work with training on new processes of teaching and learning is also very important. The groups are still fundamental to share experiences¹². The administrator

must provide the development of these skills in the teachers group that makes up the workforce and to meet the success of this measure with this group, must evaluate the intervention processes.

The administration of educational programs should also contemplate the self-assessment and evaluation of the success in meeting goals, as well as teaching styles used by teachers, whereas the teaching staff involvement in proposals for improvement¹³.

The interpretation and application of education policies is another requirement for the administrator. Thus, administrators of educational processes must establish clear links between the legal provisions for acting and professional practice and teaching program, so this will increase the chances of success of the program, for closer relations between the teaching of practice with the realities of nursing services¹⁴. It should be noted that it is not enough to meet, it is necessary to interpret and apply the laws that influence educational and health practices, the latter, in the case of Nursing education.

Society is constantly changing and adapting to social dynamics prevents the obsolete and maintains competitive institution in the market. Administrators of educational programs should be prepared and be adept with changes in nursing. The health context involves constant adjustments and transformations, running from issues such as population growth, greater life expectancy and aging population, contagious diseases, growing involvement with drugs and, on the other hand, an increasingly conscious population about health issues, disability health services systems, the technology and the science advances in this area. The increase in the intensity and complexity of care by nurses, requires training programs entailing the preparation of the apprentice to adapt and to manage social changes¹⁵. The administrator must be aware of this reality and have skills to infuse this transformation in the drawings of the curricula.

The education programs administrator, in this context, should administer programs that develop knowledge, skills and attitudes articulated into the social context, so it is transformed according to the learning demand. This means forming competent nurses to be continually adapting. The social reality, today, does not support formed nurses with technical focus. Nurses should be graduated to learn how to learn, which implies in delivering power to the student, stimulate auto direction and reflection processes. The teacher assumes, in this reality, the facilitator and consultant role, named today as guardian or tutor, developing educational actions, advice and support. The¹ program administrator must have this vision and translate it to the course curriculum and for teachers.

Understanding of program administration

This domain includes six competencies and, in this case, had different result, since most teachers declared low current

domain and most desire in the tasks to develop and monitor plans and financial procedures, translate, persuasively, modern approaches of training and policy-making, planning and using promotions and advertising properly, prepare proposals for sponsorships and identify sources of funding, in addition to make use of consultants.

In only one dimension, the studied population claimed to have moderated domain: for the ability to design and implement programs with limited budgets. The reality of most schools, mainly because they are mostly private, is rigidly control their spending. In addition, the nursing education suffer influence of public health policies and education, involving the control of financial resources. The management style in nursing suffers contraction and expansion processes that are often connected to limited funds. In nursing education that is no different. This is a reality both in public schools and in private schools, and involves both the Administration and teaching. Perhaps¹⁶ because of these facts, teachers declared dominate moderately that competence. The remaining actions are poorly developed by teachers in their professional practice, because few assume administrative activities and, Furthermore, it is content that are not worked out in training undergraduate and graduate school either.

Comparison between two domains of competence to administer programs of adult education

Comparing the domains of competence to administer programs of adult education, it was noted that the significance index was relevant. The ability of lesser emphasis was to plan and implement programs of teaching and greater emphasis was the understanding of educational programs. The desire to develop had less emphasis on planning and implementation of teaching programs and greater emphasis on the understanding of educational programs.

Thus, teachers recorded they held and sought to develop the understanding of managerial skills more than apply them in practice this because maybe they hadn't had experience in this area and wished to initially meet the subject; although most have declared have pos-graduate degrees in the area of administration.

Result of study¹⁷ found that a large part of health professionals does not have experience with the administration of educational programs and also not demonstrated satisfaction with this area, returning their interests to the professional practice.

One of the ways for educators to develop skills to administer programs is the involvement with these topics. Thus, the involvement with the formulation and implementation of policies will improve the acquisition of knowledge and skills and will influence positively the personal and professional development of the company, generating immediate impacts in the workplace. Experience in this regard reported that

the professionals involved have become more aware of and responsible for management processes and developed competencies in this area¹⁷.

Relationship between the three competencies group: learning facilitator, developer and programs administrator

The teachers realized have greater domain to facilitate learning than to administer and develop educational programs for adults. The same was not observed for the desire to develop themselves, the difference between the desired skills was not significant ($p = 0.110$) and thus became clear that most of the teachers wanted to develop the highest degree of all the competencies.

On traditional pedagogy and organizational culture of adult education schools in Brazil, is frequent the control of the educational process through rigid definition of disciplinary content and prior presentation of lesson plans for coordination, among others situations. This fact hinders creativity and teacher autonomy to intervene in situations involving major changes in the planning, as development and administration of educational programs. Few administrator teachers have experience in this area and, of those, few give autonomy to a teacher group or, even less, a students group collaborate in this work.

The teacher must go beyond the practice of contests, to meet the demand of nurses training compatible with social requirements. They should broaden their horizons, seeking skills with the facilitation of learning, development and administration of educational programs for adults.

The need to invest in training of teachers, holding, apart from technical knowledge, ethical values and political too, is based on legal issues of compliance with curriculum guidelines issued by the LDB, beyond the commitment to form competent professionals and citizens who can contribute to a fairer world and for the social recognition of the profession¹⁸.

The limits of this study must be considered by readers and researchers, since this is a work held in schools and teachers groups characteristic of the city of Sao Paulo, that do not fit in other different realities.

CONCLUSIONS

The present study assessed the competencies of teachers who worked in nursing degree courses from São Paulo, to develop educational programs to adults, through the Self-diagnostic Classification Scale for Adult of Andrology Competence for the Education Skills for the Role of the Adult Educator, developed by Knowles.

The instrument has shown that it is able to evaluate the profile of teachers in relation to competence to act on adult education and can be used in other studies. It is desirable to conduct other studies wishing to replicate this research in

other realities, as they can give a panorama expanded this feature, which could contribute considerably to the teacher training courses, since there are few benchmarks in this area, which is lacking and needs to progress.

The study subjects were predominantly mature women, formed in public schools, masters, with working hours of 40 hours a week, operating between 6 to 10 years in teaching, in theoretical and practical disciplines.

With regard to competence to administer programs of adult education, teachers have claimed dominate moderately and want to develop the understanding of managerial skills more than execute them.

In short, the group of teachers signaled, in general, to be in intermediate level in comparison to the fullest that he wished to reach groups of skills programs administrator, i.e., most teachers nurses who acted as an undergraduate in nursing in São Paulo in 2010 was far from the ideal maximum level of competence that longed for. So, as this grouping values and influences considerably the success of learning in nursing, it suggests the intervention in the processes of formation and improvement of the nursing teacher in these skills, for the improvement of education.

The overall analysis of the results indicated that, before any intervention which considers the Andragogy as the basis for the training of teachers is implemented, it has to measure the current level of skills of these individuals. This was done in the present research precisely because there are not, in nursing, measurements of skills in adult andragogy perspective proposed by Malcolm Shepherd Knowles.

It is considered, however, that the study will be useful to facilitate the planning of programs for individual and institutional development of teachers and educational institutions studied, and for administrators, with respect to the relevant skills to increase the performance of teachers and better serve students.

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