

## Professional performance of egresses from the tutorial education program of a nursing course

### Atuação profissional dos egressos do programa de educação tutorial de um curso de enfermagem

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**ABSTRACT | OBJECTIVE:** to know the contributions of the Tutorial Education Program (PET) to the professional performance of graduates of the undergraduate nursing course at a University in the Northeast of Brazil. **METHOD AND MATERIALS:** this is a research with a quantitative and qualitative approach. Data collection took place in 2017 through a questionnaire with questions about the skills developed as fellows and the contributions of the program in the graduate's career. All 84 alumni were invited to participate, of which 47 responded to the questionnaire. **RESULTS:** 75.5% of the graduates of this program achieve rapid insertion in the job market with prospects of re-entering the university through postgraduate courses. Regarding the contributions of the program in the professional career, they stated that the skills developed facilitated the solidification of the desired professional profile. When asked if the program contributed to their professional career, they replied that it was important in this regard, but also contributed to personal development. In addition, 51% reported that teamwork and interpersonal relationships were the skills that contributed most to professional life. **FINAL CONSIDERATIONS:** it was possible to perceive the importance of the program's performance in the academic and professional training of nursing students, based on the development of skills performed in the group.

**KEYWORDS:** Nursing. Professional training. Professional performance.

**RESUMO | OBJETIVO:** conhecer as contribuições do Programa de Educação Tutorial (PET) para a atuação profissional dos egressos do curso graduação em enfermagem de uma Universidade do Nordeste do Brasil. **MÉTODO E MATERIAIS:** trata-se de uma pesquisa descritiva com abordagem quantitativa e qualitativa. A coleta de dados ocorreu em 2017 por meio de questionário com perguntas sobre as habilidades desenvolvidas enquanto bolsistas e as contribuições na carreira profissional do egresso. Todos os 84 ex-bolsistas foram convidados a participar, dos quais 47 responderam ao questionário. **RESULTADOS:** 75,5% dos egressos desse programa conseguem rápida inserção no mercado de trabalho com perspectivas de reingresso na universidade por meio dos cursos de pós-graduação. Em relação às contribuições do programa na carreira profissional, afirmaram que as competências desenvolvidas facilitaram a solidificação do perfil profissional desejado. Revelaram que o programa foi importante para a carreira profissional, e que também contribuiu no desenvolvimento pessoal. Ademais, 51% relataram que o trabalho em equipe e relacionamento interpessoal foram as competências que mais colaboraram na vida profissional. **CONSIDERAÇÕES FINAIS:** foi possível perceber a importância da atuação do programa na formação acadêmica e profissional dos estudantes do curso de enfermagem, a partir do desenvolvimento de habilidades realizadas no grupo.

**DESCRITORES:** Enfermagem. Capacitação profissional. Desempenho profissional.

## Introduction

Graduation is an important moment in the formation of students' professional knowledge and autonomy, as it is during this period that the trainee is encouraged to dialogue with different disciplinary knowledge and to integrate them, contributing to the social development.

The Tutorial Education Program (PET in Portuguese), linked to the Brazilian Ministry of Education and based on the university tripod (teaching, research and extension), involves members in a comprehensive training process aiming at a comprehensive understanding of the teaching-learning process. The program values interdisciplinary activities, collective action, and creativity in the academic environment, seeking to integrate academic training with the future profession of its members<sup>1</sup>.

It is important to emphasize that the PET proposal to the university community establishes an important divider between it and other academic training programs - the idea of emphasizing teaching, research, and extension, basic pillars that support university knowledge based on the political purposes acquired over the years by the program, and the idea of tutoring small groups by teachers trained for the function, which are the basic ingredients for the formation of leaders<sup>2</sup>.

The PET has the general objective of improving the teaching-learning process within undergraduate courses considering that each course acts independently, but always in an interprofessional way, expanding the perspectives of qualification and training of students. In this sense, it presents itself as an important pedagogical tool for providing its components with a learning process aimed at developing skills related to creativity, versatility, flexibility, ability to relate, communicate, and to solve problems<sup>3</sup>.

In the nursing course, the program promotes an experience of teamwork and leadership, which are essential attributes for future health professionals. In the training environment, students need to maintain a harmonious coexistence between team members like in the professional world. In addition, the prospect of carrying out teaching, research, and extension

activities encourages the fellow students to take a critical and reflective look at the profession, which contribute to their future professional performance<sup>2</sup>.

In this way, Tutorial Education is configured as a reference for Nursing professional development that considers the Brazilian social context and the particularities of the Unified Health System (SUS in Portuguese), especially with regard to guidelines on teaching, learning, and acting<sup>4</sup>.

In this scenario, it is necessary to highlight the scarcity of publications, research and data that reinforce the importance of such programs in the context of the Brazilian education as a program that helps to stimulate students interest in their future professional careers. Therefore, the need for further studies and research to evaluate the impact, performance and profile of students who participate in the PET program and who enter the job market is needed, as it can serve as a stimulus for greater dissemination and creation of similar groups in universities.

Therefore, the following research question emerged: how does the Tutorial Education Program (PET) contribute to the professional training of its graduates? Therefore, this research aimed to better understand the contributions of a Nursing PET on the professional performance of graduates of an undergraduate program of a university in the Northeast region of Brazil.

## Method

This is a descriptive study with a quantitative and qualitative approach. The study was carried out in the first semester of 2017 with 47 graduates who participated in a Nursing PET program belonging to the Ceara State University, from 1994 to 2015.

Professionals meeting the following inclusion criteria were recruited for the study: having been an official scholarship holder or volunteer of the Nursing PET program in the last 21 years. Participants who could not be contacted through e-mail, phone, or social networks, or who could not be found on the Brazilian Lattes platform were excluded.

The participants recruitment was initially made by consulting lists of graduates provided by the selected University. Following this consultation, the Brazilian Lattes platform that enable access to specific information was used to access the emails of the potential participants. All 84 alumni were invited to participate in the survey, from which 47 responded to the questionnaire.

The instrument used in the data collection was produced using the Google Docs tool and sent by email to the participants. The form contained 12 close-ended questions about sociodemographic, qualification, and professional performance information in addition to four open-ended questions about the achievement of the program objectives, skills developed during the program, contributions for the students' career, and continuity in research, teaching and extension activities after completing the course.

Data were inserted in Microsoft Excel spreadsheets and analyzed using descriptive statistics.

For the qualitative analysis, three content analysis steps mentioned by Campos<sup>5</sup> were followed. The first stage was the "Free-floating reading" of the answers to the four open-ended questions. At this stage, the participants' answers were read by the researchers (five graduating students and one PhD), in order to apprehend and organize important aspects for the next phases of the analysis in an unstructured way. The second phase was the "Inference in content analysis" (or units of meaning). In this stage, sentences and paragraphs with similar meanings were cut according to each question. Finally, the third step was the "Categorization process by relevance criteria" in which the responses were categorized into the following categories: (1) achievement of program objectives, (2) skills developed during the program, (3) PET contributions for the professional career, and (4) activities developed by the graduate on teaching, research or extension.

The confidentiality of the participants was maintained by identifying the speeches by the letter "E" followed by a numeric code. The research was submitted and approved by the Research Ethics Committee at the Ceara State University under the protocol no. 2,041,763 and CAAE no. 66645717.6.0000.5534 in 05/02/2017 and all the guidelines of the Resolution 466/12 of the National Health Council were followed<sup>6</sup>.

Regarding the participants' profile, 43 (90%) were female and spent an average of 38 months as a program grantee. Regarding qualification, 45 (94%) have postgraduate degrees – eight PhD holders (17.7%), three masters (6.6%), and 24 specialists (53.3%). The nursing specialties were varied including cardiology, obstetrics, intensive care, and public health.

A total of 36 (75.5%) participants were employed right after graduation (less than six months) – 30 (63.8%) in public institutions, 10 (21.3%) in private institutions, and 7 (12.7%) in both, and 24 (49%) participants were working in a 31-40 hours/week job.

The range of graduates' salaries varied widely, ranging from the value of a master's/residency scholarship to more than ten minimum wages [16 (32.7%)].

The first open-ended question was "During the period when you were a PET scholarship holder, do you consider that the program reached the teaching, research and extension tripod?". Most participants [32 (68%)] answered "yes" to this question, stating that the program achieved the objective of addressing the university tripod. Teaching was highlighted as the most emphasized aspect during the program. Among the activities, the most reported were tutoring, lectures, conversation circles, courses, workshops, and events. Regarding extension activities, the most cited were visits to pediatric wards in public hospitals, workshops, and health education groups for children, women, and the elderly.

However, it is worth noting that eight participants highlighted the difficulty of articulating the three axes (teaching, research, and extension). Research and extension were always linked, however, there were difficulties in articulating teaching with these two axes. In addition, the interviewees commented about overload and difficulty of combining the program activities with the undergraduate responsibilities, as it can be seen in the following statements:

*(...)I think the program is complete and allows us to experience actions in the field of teaching, educational actions, individual and collective researches, among others. (E43)*

*(...) our productions were limited to presentations at scientific events. We could have moved on to scientific publications in journals. I had to join a research group at the University to better develop this area and apply for a master's degree program at the time. (E37)*

The second open-ended question was "What skills did you develop during the fellowship program?". The most mentioned skills were teamwork, by 26 (55%) participants, communication and public speaking, by 23 (49%), organization, planning and management, by 11 (23%), event organization, by 10 (21%), leadership, by 9 (19%), creativity, by 5 (11%), and protagonism and autonomy, by 4 (9%), in addition to interest in culture and politics.

Regarding the contributions of the PET program to the participants' professional career, it was reported that teamwork, public speaking, and professional attitudes encouraged during the development of the program enabled security in professional decision-making. According to the participants, these skills facilitated the consolidation of the desired professional profile, reinforcing attitudes of leadership, responsibility, and organization. The importance of the program was explained as follows:

*The Tutorial Education Program helped me to know how to work in a team and to be able to identify the skills of members in order to use them in the best possible way. This means that in my work environment, as a leader of the nursing team, I can recognize skills and use them to provide better patient care. (E40)*

The third open-ended question was "How did the program contribute to your professional career?". Respondents described that the program was important not only for their professional lives, but also for personal development. For 24 (51%) of the participants, teamwork and interpersonal skills were the acquired skills that contributed most to their professional careers.

Finally, in relation to the fourth and final question "Do you currently carry out any teaching, research or extension activity?", 34 (81%) participants answered "Yes", stating that they continued to develop such activities after the graduation. Teaching was the most developed activity, followed by research, mainly related participation in *latu sensu* programs. It was also possible to notice that some graduates developed all the three activities (teaching, research, and extension), as it can be seen in the following statement:

*I develop all three activities. I am a professor in a Nursing program. As a fellow in the program, I learned about the need to articulate the three activities from the tripod in all the activities that I plan in my current job. This is not always possible, but I try, because I know that this is important for the students' development. (E33)*

In addition, 18 (40%) participants reported that arrangement of the PET activities on the teaching-research-extension tripod contributed to them seeing themselves as teachers or researchers. This is notorious from the following statement:

*The teaching branch of the tripod was the most developed during the program. We planned diversified activities related to this branch, so I was given the opportunity to learn about many aspects of teaching. I am a teacher and I realize that my communication skills were greatly stimulated when I was a fellow in the PET program. (E32)*

## Discussion

In 2008, the Brazilian Ministry of Education (MEC in Portuguese) initiated a survey on the profile of the educational program's former fellows with the objective of investigating whether the PET program has fulfilled its role in influencing the academic, professional, and personal insertion and development of its graduates. However, the results of this research were not disclosed, and some isolated initiatives by groups interested in knowing this reality were presented<sup>7</sup>.

The current study has found a predominance of female participants, which is a historical trend in the Nursing field; however, there has been an increase in the male contingent in the composition of Nursing undergraduate classes<sup>8</sup>.

In addition, despite the few studies on the profile graduates from the PET program and the diversity of methods employed in these studies, it is observed that our findings are similar to the data presented in a study conducted with graduates from a Physics undergraduate program belonging to the Federal University of Rio Grande do Norte (UFRN), which also found that most graduate students followed the academic career path<sup>9</sup>.

In view of the dynamic and competitive labor market, the skills developed within the program are relevant, especially in the search for the first job, as shown by the results regarding the time of insertion in the labor market.

Another important finding is that the range of graduates' salaries varied widely, from the value a master's scholarship to more than ten minimum wages. Equivalent results were identified in a survey regarding the insertion of graduates into the labor market, in which 55% of the graduates from a PET program took less than six months to enter their first jobs – 54.1% in public institutions, and most of them attended or were attending to postgraduation programs (79.9%)<sup>10</sup>.

The reported difficulty to carry out the activities of the teaching-research-extension tripod occurs due to the little time available to perform extracurricular activities during the course. Therefore, the importance of an integrated curriculum that meets the demands of the desired professional profile is emphasized, in addition to forming a critical and politically active student capable of recognizing and solving problems<sup>11</sup>.

In addition, the Brazilian Higher Education Secretariat (SESU in Portuguese) provides guidance on the objectives and the importance of implementing teaching, research, and extension activities in the annual planning. Consequently, members of the PET program are benefited by the commitment to a quality academic training and by the innovative pedagogical practices and experiences carried out within the program leading to a better preparation of students to work in the field<sup>12</sup>.

According to the National Curriculum Guidelines for the Nursing Graduation Course, leadership, organization, planning, supervision, and evaluation of nursing activities are essential skills in the exercise of the profession, since nurses are responsible for these functions. Another fundamental aspect is that the skills developed in the PET program are related to the professional's performance in the work environment with regard to coordination and optimization of work, effective communication with the multidisciplinary team, and incentive to clinical reasoning<sup>13</sup>.

These skills are essential for nursing since nurses are the members of the multiprofessional team that provide the closest assistance to patients and, therefore, meet high communication, planning and autonomy demands in their work<sup>3</sup>.

The profile of the PET grantee is one that stands out for having skills, such as the ability to work in a team, autonomy, decision-making, proactivity, spirit of leadership, and initiative, contributing to the formation of a critical and active professional guided by citizenship and the social function of higher education, as well as for individual and interpersonal growth, forming a professional with an ethical and humanistic vision<sup>4,14</sup>.

In this context, the PET regulation, which was instituted by Law 11,180/2005 and regulated by Ordinances No. 3,385/2005, No. 1,632/2006, and No. 1,046/2007 establishes how the program should work, what the administrative and academic constitution is, in addition to determining the rules and frequency of the national group assessment process. After five years since its establishment, the regulation of Ordinance No. 976/2010 brought innovations to the structure of the program such as the flexibility and dynamization of the structure of the groups, the union of PET with the "Knowledge Connections" (Conexões de Saberes in Portuguese) interdisciplinary program, the determination of a maximum mentoring time, approximation with the academic structure of the university, and the definition of internal program management structures<sup>7</sup>.

In this way, the program undergoes updates in order to innovate and integrate more students and is highlighted as a relevant program so that individual and collective skills are enhanced and developed and the obstacles of the teaching-learning process are overcome. This scenario reflects in the work environment of the graduates, as the nurse as the team leader has the function of recognizing the team's skills to provide a qualified assistance<sup>15</sup>.

The program grantee, from the beginning, is encouraged to implement research, teaching and extension activities in the form of projects, encouraging the collective planning of actions with a view to achieving one or more objectives. The PET's projects integrate knowledge that is sometimes



fragmented during undergraduation. Such experiences contribute to professional development and offer enriching opportunities for the scholar's academic life<sup>16</sup>.

Our results are in line with the objectives advocated by PET, which emphasize the development of competencies and skills aimed at the collective integrated work of the course with the community, with the purpose of obtaining social skills and awakening the spirit of investigation<sup>12</sup>.

In view of this, research states that the sooner the undergraduate student engages himself in teaching, research and extension activities, the greater the chances of entering the university in postgraduation courses<sup>16</sup>.

The study findings also reinforce the importance of the PET program for professional training, since the objectives of this program seek to offer academic training of excellence to undergraduate students, in addition to encouraging entry into graduate school and stimulating quality improvement in higher education through the development of innovative pedagogical practices and experiences. Besides that, one of the objectives of the program, according to the MEC, is to provide academic training at an excellent level and to train a critical and active professional, guided by citizenship and the social function of higher education, through the development of collective actions and teamwork<sup>12,17</sup>.

These objectives are in line with the training of nurses by providing the experience of collaborative and interprofessional work and leadership attitudes that are essential for the job market, especially for health professionals. The nursing professional requires the ability to maintain good coexistence among the members of the health team to provide patient safety<sup>18</sup>.

Thus, the results of this research show that the PET program has achieved its objectives regarding the qualification, preparation, and updating of students for the job market, providing critical, active, and creative training.

## Final considerations

The study shows the importance of the PET program in the formation of nurses through teaching, research, and extension activities, since it provides the development of communication, teamwork, interpersonal, and creativity skills that are essential for nurses. In addition, it shows that a large portion of graduates managed to enter the labor market less than six months after the end of the nursing course and entered postgraduation programs.

The study demonstrates the contributions of the PET program, not only in professional training, but also in building critical and conscious citizens. This is due to the experience of the fellows in a program that values proximity to the community, academic discussions and social practices.

A limitation of this study is the lack of knowledge on the subject due to scarcity of studies for comparison. It is also worth noting the lack of instruments that can systematically assess the graduates of the PET program that could guide and facilitate the data collection. In addition, it was difficult to contact the graduates of the first Nursing classes.

Thus, it is suggested the development of new studies that increasingly show the repercussions of the PET program for undergraduate students, helping to strengthen the program across the country.

## Author contributions

Lopes TF performed data collection, analysis, statistical treatment, and discussion. Da Silva BV, Vaz SS, and Pereira JM performed data collection and data interpretation. Oak LS performed data interpretation and statistical treatment. Oak REFL guided the research and analyzed the data.

## Competing interests

No financial, legal or political conflicts involving third parties (government, companies and private foundations) have been declared for any aspect of the submitted work (including, but not limited to, grants and funding, participation in advisory council, study design, manuscript preparation, or statistical analysis).

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