Nursing education and career path of the graduates of Department of Nursing A’ - Technological Educational Institute of Athens

Panagiota Anastasopoulou¹, Vasiliki Vardala¹, Stella Vasileiou¹, Georgios Vasilopoulos², Theodore Kapadhos², Fotoula Babatsikou³, Christina Marvaki⁴

1. RN, Department of Nursing A’, Technological Educational Institute of Athens,Athens,Greece
2. Lecturer, Department of Nursing A’, Technological Educational Institute of Athens,Athens,Greece
3. Associate Professor, Department of Nursing A’, Technological Educational Institute of Athens,Athens,Greece
4. Professor, Department of Nursing A’, Technological Educational Institute of Athens,Athens,Greece

Abstract

Background: The professional course and employment of nurse graduates in Greece and their absorption by the NHS represent a major issue, in the creation of which contemporary social, economic, political and demographic circumstances contribute. The stratification in nursing education, the increasing number of graduates, in conjunction with the decreasing job opportunities, as well as the dissatisfaction in the undergraded working conditions create an adverse working environment in Nursing in our country. The aforementioned factors, in addition to the continuing nursing education, regarding the effectiveness of nursing care and its relation to personal and professional growth of nurses, are considered of particular significance.

The purpose of the present pilot study was to investigate the professional course and employment, as well as the continuing nursing education of the graduates of the Nursing Department A’ of the Technological Educational Institute of Athens.

Material-Method: From a sample of 200 graduates from the Nursing Department A’ of Technological Educational Institute of Athens, 89 graduates participated in the research eventually. Data collection was held by the use of a specially designed questionnaire in the form of electronic document Google Docs, which was sent to graduates via e-mail. Data analysis was performed with the statistical package SPSS (Version 20).

Results: From the 89 study participants, 85% are women and 15% are men. The majority of the graduates hold “very good” and “excellent” degree grade. 26% of all graduates pursue postgraduate studies in Greece and abroad and around 80% of them follow postgraduate studies related to Nursing. 76% of all graduates are employed as salaried employees (84% full-time job and 16% part-time job), of which approximately 70% in a field related to their studies. In general, the employed graduates of the faculty are partly satisfied with the working conditions-environment and little to very satisfied with their salary rate. Finally, the majority of the employed graduates have salary from 700 to 1,000 euro.

Conclusions: The rate of the unemployed graduates in the profession of Nursing does not outnumber the rate of the working one in this field. The majority of the graduates do not attend postgraduate studies in Nursing. However, many graduates choose to follow various training programs as a method of continuing education.

Keywords: nursing, nursing education, employment, nursing job satisfaction, graduates
Introduction

The education in the health field is crucial, since, through this, the greatest benefit is achieved from the initial investment of the country, which takes place with undergraduate education. This is particularly true today, with the explosion of technological progress and computing, where the possibilities are expanded, the processes are accelerated and many depend mainly on the level of health care professionals. The educational level depends on basic education, specialization, training and continuous lifelong learning.

Moreover, the requirements in Nursing change, fact which has been taken into account in the development of nursing education and has occasionally been the subject of several studies. Worldwide, the nursing education has been developed confronting the challenges of modern multidisciplinary cooperation in the provided health care.¹

Regarding nursing educational programs worldwide, countries vary in terms of the duration of the program and of its core curriculum.² In Europe, the development of higher education, which defines a new vision for an education that responds to the needs of the market, is best known as the Bologna Process. This process leads to professional practice, which is recognized based on the skills acquired through appropriately adapted courses. The mobility in higher education, with exchanges of students and teachers, is already based on mutually recognized points (European Credit Transfer System, ECTS).³

Until today, the professional practice is recognized only if it complies with the specific professional guidelines for Nursing, which define the rules for free movement of nurses in the countries-members, regardless of their educational level. Thus, in some countries nurses study in higher education (universities or technological institutes) and in other countries in schools of post-secondary vocational education. Likewise, there are significant variations in postgraduate studies and other disciplines.⁴

Regarding the transition from student life to work, this has been recorded as a period of anxiety and concern, as well as of challenges.⁵⁻⁷ Kramer⁸ was the first to mention the experience of “reality shock” among new graduates of Nursing, a term used to describe the conflict between the values of the school and the values of the working environment. Since then, there has been a lot of quality work to examine the transition of graduates from student life to professional life.

There have also been discussions with regards to the factors that influence the workforce in the health field. The demographic characteristics and the epidemiological profile of the population are two of the key factors shaping the demand for both health services and human resources. The relationship between workforce and education as well as the reforms taking place in the health sector, the phenomenon of globalization and the movement of health professionals in search for more satisfactory income and working conditions are also included in the driving forces for human resources in the health industry.⁹

According to several studies, the problem of nursing shortage has been detected in many hospitals around the world, leading not only to a stressful work environment, but also in many other issues including the poor quality of health care for patients and the high cost that this implies.¹⁰ Conforming to authoritative sources and estimations, the effectiveness of nursing services is threatened by the tremendous staff shortage, to the point that the coverage of the needs of health services in each country is dramatically affected.¹¹
Healthcare systems worldwide are faced with the ever growing challenges. The continuously growing health needs, in conjunction with the financial distress that is observed, are constraining the ability of health services to strengthen their structures and their manpower. A number of countries, including the United States of America, are working hard in an effort to correct the situation and the possible effects of the nursing shortage on the health system. Furthermore, the World Health Organization (WHO) devoted an entire chapter to the World Health Congress emphasizing on the necessity of education and recruitment of new health professionals in the healthcare system.

In Greece, the shortage of nurses is a reality. Almost all hospitals in the country operate with tremendous staff shortages and any acute placements are not sufficient to fill the gaps created by retirement, resignation etc. Healthcare system of Greece faces a major shortage of nurses as a result of the staff burnout, low recruitment and poor expectations of employees for the future.

The factors contributing to the shortage of nurses are various and complex. From a demographic perspective, several studies have shown a correlation between age, sex, marital status, educational level and intention of nurses to leave the profession. In addition, the unhealthy working environment, burnout and intense stress reduce the efficiency of nurses and often force them to abandon their occupation either from specific work fields or from the nursing profession itself.

Studies from various countries have also come to the conclusion that job satisfaction is a statistically significant indicator of the absence of nurses (burnout), the heteroemployment and intention of leaving their jobs. Studies related to heteroemployment of new graduates have demonstrated that high job satisfaction, commitment to the organization (hospital), support in the workplace and income have been associated with low levels of heteroemployment or intention of nurses to leave their jobs.

Furthermore, in an era characterized by rapid scientific and technological developments, basic education is not sufficient for the entire professional course. The continuing education regarding the effectiveness of nursing care, as well as its relation to personal and professional growth of nurses are of great importance. Typically, significant differences in knowledge were gained by students, after attending a training program, but the most important was that the nurses seemed to use their new knowledge into clinical practice.

In conclusion, the design and development of continuing vocational training structures are necessary steps for removing distortions and restoring the balance between the outputs of the educational system and the inputs of the labor market in the health sector.

**Purpose**

The purpose of the present pilot study was to investigate the professional course and employment, as well as the continuing nursing education of the graduates of the Nursing Department A of Technological Educational Institute of Athens.

**Objectives**

1. To measure the rate of unemployment, self-employment and heteroemployment in Nursing.
2. To identify the waiting period for getting a job after obtaining a degree in Nursing.
3. To determine the way of finding a job in Nursing (through the Liaison Office of TEI, internship, Employment Agency, advertisements or friendly and family environment).
4. To investigate the level of satisfaction in terms of working conditions and financial rewards.

5. To identify the percentage of the graduates that follow postgraduate studies related to Nursing.

6. To test the correlation between the level of education (degree grade, postgraduate studies, foreign languages, computer literacy) and finding a job in Nursing.

Methodology

Material and Method

The sample of the present pilot study consisted of the graduates of the Nursing Department A’ of Technological Educational Institute of Athens from the years 2000 to 2011. The data of the graduates (name, contact info, entry year-graduation year, degree grade) were collected from the data base that is held at the Secretary of the Nursing Department A’ of Technological Educational Institute of Athens.

Subsequently, questionnaire from a related study of the Liaison Office of the Alexander Technological Educational Institute of Thessaloniki (ATEI of Thessaloniki) was used after obtaining authorization and after minor adjustments that were made to the content and formatting, in order to conduct the research. This questionnaire was sent to the graduates in the form of electronic document Google Docs via e-mail after telephone contact, informing them simultaneously about the subject and purpose of the research and their voluntarily participation in the study, as well as the protection of the confidentiality of their personal data. From 200 graduates of the Nursing Department A’ of Technological Educational Institute of Athens invited to participate in the study, 89 graduates participated in the research eventually.

Statistical Analysis

The statistical analysis of the data was performed with the statistical package SPSS (Version 20). Initially, the basic descriptive statistical data of the study were analyzed. Specifically, the results of the responses from graduates were presented as frequencies and percentages both in tables and figures.

Subsequently, a few variables of the research were correlated with cross-tabulation on SPSS. Chi-square Test was used in order to investigate the significance level (p_value) regarding the relationship between the variables of the study. The final estimations of the correlated data were considered statistically significant if p_value < 0.05.

Results

Descriptive Statistics

The sample of the study consisted of 89 graduates of the Nursing Department A’ of Technological Educational Institute of Athens from the years 2000 to 2011. The majority of the graduates that participated in the study are women (85%). About nine out of ten graduates (87%) are unmarried and nine out of ten (90%) do not have children. According to the results of the research, all the male graduates have fulfilled their military service.

Moreover, the majority of the graduates (90%) hold “very good” and “excellent” degree grade. Regarding the continuing education, 26% of all graduates pursue postgraduate studies in Greece and abroad and around 80% of them follow postgraduate studies related to Nursing. All graduates have knowledge of the English language, while 26% of all graduates speak French. The majority of the graduates (90%) have computer skills. In addition, about six out of ten graduates (58%) have attended seminars.

In regards to the employment status, more than seven out of ten graduates (76%) are employed as salaried employees (84% full-time job and 16% part-time job), of which
approximately 70% in a field related to their studies. In contrast, 24% of all graduates are unemployed, of whom 23% admit to have no job and are in the process of searching one.

Regarding the employed graduates, 28% of them claim to have found occupation through competition, 27% from friends or family and 23% from advertisements. Also, more than six out of ten graduates (66%) found their first job from 1 to 6 months after graduation. The majority of the employed graduates (41%) are partly satisfied with the working conditions-environment. As regards to the satisfaction of the employed about their salary rate, there is an equal separation among being little (27%), moderately (25%) and very satisfied (27%). The majority of the employed graduates have salary from 700 to 1,000 euro. According to the responses of the graduates, the low salaries are the main reason for the employed to seek an alternative occupation, with the second reason being the fact that their jobs do not meet their aspirations.

Regarding the unemployed graduates, about eight out of ten unemployed graduates (79%) claim that they had a job after their graduation, of which 34.5% worked in a field that was very much related to Nursing and 34.5% in a field that had a slight relation to Nursing. Finally, more than four out of ten unemployed graduates (44%) report that they remained unemployed up to 6 months.

Inferential Statistics

All graduates with “good” degree grade have not followed postgraduate studies. From all graduates with “very good” degree grade, 74.6% have not pursued postgraduate studies, whereas from a total of 13 graduates with “excellent” degree grade, 7 have not also attended a postgraduate course in Nursing. However, the correlation between these variables is not statistically significant as p value = 0.163 > 0.005 (Table 1).

In addition, from all graduates who hold a “good” degree grade, 55.6% are employed, while from all graduates with “very good” degree grade, 77.6% have a job. From a total of 13 graduates with “excellent” degree grade, 11 are employed. Nevertheless, there is no statistically significant difference between the above variables considering that p value = 0.514 > 0.05 (Table 2).

From all graduates that have not followed postgraduate studies, the wage of 60.4% of them ranges from 700 to 1,000 euro. From 18 graduates that have attended postgraduate studies, 11 of them have salary from 700 to 1,000 euro. However, these variables have no statistical significant correlation since p value = 0.084 > 0.05 (Table 3).

From a total of 56 graduates who have a full-time occupation, 40 of them have salary from 700 to 1,000 euro, whereas all graduates that have a part-time job earn a salary of less than 700 euro. There is a great statistical significance between the type of employment and the salary rate as p value = 0.000 < 0.05 (Table 4).

From all graduates who speak French, 87% of them are employed. From a total of 5 graduates that speak German, 3 of them have a job, while all graduates that speak Italian are employed. Finally, from a total of 5 graduates who speak Spanish, 3 of them are unemployed.

Moreover, from all graduates who have knowledge of using Windows, 77.6% of them are employed, whereas from all graduates that know how to use Excel, 79% of them have a job. From a total of 75 graduates that have knowledge of using Power Point, 57 of them are employed. Finally, from a total of 85 graduates who know how to use Internet, 64 of them have an occupation.

All graduates who have undergone training in vocational training institutes have a job. From all
graduates that have attended seminars, 80.8% of them are employed. From a total of 7 graduates that have acquired another informal training, 5 of them have an occupation.

In conclusion, from a total of 4 graduates who have undergone training in vocational training institutes, 3 of them have salary from 700 to 1,000 euro. From all graduates that have attended seminars, 60% of them earn a salary of 700 to 1,000 euro. Finally, from a total of 5 graduates who have acquired another informal training, 3 of them have salary of less than 700 euro.

Discussion

In the present study, it is mentioned the problem of nursing shortage in the workplace in Greece and around the world, a phenomenon that causes difficulty in the performance of the duties of nurses, occupational fatigue, dissatisfaction in the profession and high levels of anxiety. According to the results of the current research, the unemployment rate of the graduates of the Nursing Department A’ of Technological Educational Institute of Athens is amounted to 24%.

Another study conducted by the Alexander Technological Institute of Thessaloniki on “Vocational absorption of graduates of the Department of Nursing”, indicated that the unemployment rate stood at 15.1% of the sample of nursing graduates.24

According to a research, in 2006, Greece had 18,691 registered nurses, when in fact it should have 110,000, based on the data of our country and on modern standards of hospitalization provided by WHO.25

Another study indicated that in 2009, the National Health System (NHS) employed nursing staff of about 35,420 people, of which 2.7% were of university education, 46% of technological education, 41.3% of secondary education and 10% of compulsory education.26

The phenomenon of job satisfaction in Nursing has also been extensively studied. In September 2007, a study conducted by Christine T.27 showed that 13% of nurse graduates had already changed profession and 37% of the sample had intention of leaving the profession in the upcoming years. As causes of shaping this current situation were mainly highlighted the high workload, the inflexibility of working hours, violence, exposure to occupational hazards, lack of technology and medicine supplies, inadequate incentives, little professional development opportunities and finally, poor management.

In addition, another study showed that the satisfaction regarding their income was not particularly relevant to a possible relocation or abandonment of the profession and it places the department’s ethics and interpersonal relationships as the main factor of heteroemployment.28

The results of the present research demonstrated that 41% of the sample is moderately satisfied with the working conditions-environment, while 68% is none to moderately satisfied with their salary rate. According to the answers of the graduates about what would be the reasons for them to seek for another occupation, 38% of the sample reported that their wage rate is not satisfactory and 30% that their jobs do not meet their aspirations.

In a survey conducted in 2003 in Heraklion, Crete on “Staff satisfaction in the workplace in General Hospital of Thessaloniki-Ippokration29, 37% of the nursing personnel does not signify any satisfaction from their financial rewards.

From another research that was carried out in six public hospitals in Attica, Greece, one important factor that seemed to be associated with feelings of dissatisfaction of the participants in terms of their workplace was the limited possibilities for continuing education.30

The continuing vocational education should be
mandatory and in order for this to happen, there should be a strong motivation. According to a research conducted in the United Kingdom and South America, the professional development and academic interest has been described as being two of the main reasons for continuing education.31

In the current study, 26% of all graduates followed postgraduate studies in Greece and abroad, of which around 80% are related to Nursing. Regarding the educational level of the graduates, all of them have knowledge of the English language, with the second language being French at a rate of 26% of the sample. Regarding the knowledge of the graduates in computing, 47% of the sample hold excellent computing skills. Finally, 58% of all graduates have attended seminars.

In an earlier survey conducted in the months of December 2005-March 2006 with the subject on “How the educational needs of employed nurses affect the quality of nursing care”, it was found that a large percentage of nurses have not attended continuing educational programs. In addition, 11% of the respondents have a degree in nursing specialty and only 6% of the sample have been trained in a specific field in Nursing. Finally, the percentage of the respondents, who speak a foreign language (mostly English), have computer knowledge and are subscribers to nursing journals, is also small.32

Conclusions

In the present study, it was concluded that the rate of the unemployed graduates in the profession of Nursing does not outnumber the rate of the working one in this field. Although in Greece there is a reduced absorption of graduates by the NHS, worldwide it is observed that there is a low turnover in nursing schools.

In this research, it was also found that the majority of the graduates do not attend postgraduate studies in Nursing. However, many graduates choose to follow various training programs as a method of continuing education..

References


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# ANNEX

## Table 1. Correlation between degree grade and postgraduate studies

<table>
<thead>
<tr>
<th>Degree grade</th>
<th>Have you attended Postgraduate Studies?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Yes, in Greece</td>
</tr>
<tr>
<td>“Good”</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>“Very Good”</td>
<td>50</td>
<td>16</td>
</tr>
<tr>
<td>“Excellent”</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>22</td>
</tr>
</tbody>
</table>

p-value = 0.163 > 0.05

## Table 2. Correlation between degree grade and current employment status

<table>
<thead>
<tr>
<th>Degree grade</th>
<th>What is your current employment status?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Employed</td>
<td>Unemployed1</td>
</tr>
<tr>
<td>“Good”</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>“Very Good”</td>
<td>52</td>
<td>14</td>
</tr>
<tr>
<td>“Excellent”</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>20</td>
</tr>
</tbody>
</table>

p-value = 0.514 > 0.05

1 The graduates have no job and are in the process of seeking one.

2 The graduates have no job and are not seeking one.
### Table 3. Correlation between postgraduate studies and salary rate

<table>
<thead>
<tr>
<th>Salary rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 700 euro</td>
<td>19</td>
</tr>
<tr>
<td>From 700 to 1,000 euro</td>
<td>40</td>
</tr>
<tr>
<td>From 1,000 to 1,300 euro</td>
<td>6</td>
</tr>
<tr>
<td>Over 1,300 euro</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Have you attended Postgraduate Studies?</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>17</td>
<td>35.4%</td>
</tr>
<tr>
<td>Yes, in Greece</td>
<td>29</td>
<td>60.4%</td>
</tr>
<tr>
<td>Yes, abroad</td>
<td>2</td>
<td>4.2%</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100%</td>
</tr>
</tbody>
</table>

| Yes, in Greece | 2 | 11.8% |
|                | 10 | 58.8% |
|                | 4 | 23.5% |
|                | 1 | 5.9% |
| Total          | 17 | 100% |

| Yes, abroad   | 0 | 0% |
|               | 1 | 100% |
| Total         | 1 | 100% |

**p-value = 0.084 > 0.05**

### Table 4. Correlation between type of employment and salary rate

<table>
<thead>
<tr>
<th>Salary rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 700 euro</td>
<td>19</td>
</tr>
<tr>
<td>From 700 to 1,000 euro</td>
<td>40</td>
</tr>
<tr>
<td>From 1,000 to 1,300 euro</td>
<td>6</td>
</tr>
<tr>
<td>Over 1,300 euro</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of employment</th>
<th>Under 700 euro</th>
<th>From 700 to 1,000 euro</th>
<th>From 1,000 to 1,300 euro</th>
<th>Over 1,300 euro</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time employment</td>
<td>9</td>
<td>40</td>
<td>6</td>
<td>1</td>
<td>56</td>
</tr>
<tr>
<td>Part-time employment</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>40</td>
<td>6</td>
<td>1</td>
<td>66</td>
</tr>
</tbody>
</table>

**p-value = 0.000 < 0.05**