Current Situation of Pharmaceutical Care in Albania

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ABSTRACT

Background
Since the beginning of the past century, the practice of pharmacy has evolved from what could be called a medicinal cottage industry to “pill counting” to most recently, means for controlling the costs of health care. About 25 years ago the picture began to change in the world. Drugs become more sophisticated, and research into the mechanisms and effects of new drugs demonstrated the complexity of pharmacology. Faced with new information about such matters as drug-to-drug interactions, receptors-ligand-cell physiology, and the rising prevalence of iatrogenic disorders (i.e. adverse reactions to medication), physicians and the public began to regain their respect for the pharmacist’s knowledge.

There now appears to be an obvious demand from the society and from the pharmacy profession itself for a professional role that restore emphasis on pharmacist’s direct responsibility to the individual patient.

The aim of this study is to show the results obtained in the survey to assess current status of implementation of pharmaceutical care in Albania

Materials and Methods
A cross-sectional descriptive survey was carried out in pharmacies allocated in urban and suburban area of Tirana city, and is based on analyses of self assessment survey questionnaires. 120 questionnaires, together with a covering letter were distributed to pharmacists during second half part of October 2018 at the event of continuous education. The feed back was 82.8%. The self assessment questionnaire consisted of seven sections; section one - information about the respondent; section two – pharmacy situation in context, section three continuous professional development, section four medicines dispensing, section five self care services, section six point of care testing (health screening) services, section seven evaluation of self assessment.

Through questionnaires we have collected data for some indicators, like number of population of the zone where pharmacy is allocated, qualification of pharmacy staff in pharmaceutical care, medicines dispensing, inter professional collaboration, patient counseling and education, on self care, extent of diagnostic pharmaceutical services, knowledge of concept of pharmaceutical care, introduction of pharmaceutical care in the program of undergraduate, postgraduate or continuous education, as well as number of prescriptions per day, declaration and documentations of drug related problems, etc. Data from completed questionnaires were entered into Excel and transferred to the SPSS 19 (Statistical Package for Social Sciences) for statistical analysis

Results
Of 120 questionnaires an overall response rate of 81.8 percent was achieved. 100 percent of the respondents were pharmacists, 96.66% were community pharmacists, 1.11% were hospital pharmacists and 2.22% were pharmacists that worked in distribution of medicines. The majority of pharmacies are allocated in a zone with 10 000 – 50 000 inhabitants. In general pharmacies are small with one pharmacist in 74% of cases, while some of these have employed one technician. The rate between pharmacists, technicians and other auxiliary staff have resulted 1:0.08:0.09.

The number of prescription executed per day in pharmacy oscillated from 15 to 200, with an average 43.0568±27.1239, whereas the proportion between regular customers and all customers resulted 15 – 80%, with a mean 48.8391±22.87006.

The data obtained for this section III of questionnaire showed that 90% of pharmacists, included in this survey, had not completed university education in pharmaceutical care. Regarding the providers of pharmaceutical care, as it is shown in graph 5, about 88% is provided by university and professional organization, and 12% by pharmaceutical companies, and its frequency oscillated from more often than once on a year to once in five years or less.

Data presented in graphs and table of section 4, medicine dispensing, have shown that professional assessment of prescription is done always before dispensing of medicine, pharmacists carried out medication review, and its performance has resulted always in 60% of cases and occasionally in 40%.
The status of declaration of ADRs is low. About sixty percent remained undeclared. Also, the patient follow-up after intervention or correction of ADRs in about 50% of cases was never performed. The graphs and table of section V, self care services, shown system of documentation of services and referrals to physician almost were missing, and the monitoring of inappropriate of OTC medicines was low. In Albania more frequent health screening services are glucose measurement, blood pressure measurement, and body mass index measurement. There were a low number of pharmacies that did not offer such services. The majority of pharmacies offered the services daily with initiative of patients’ as a component of risk factor assessment. Follow-up of patients’ after screening test is to be desired, because it was performed mainly occasionally.

Conclusion
General conclusion resulted from the survey was that in Albania the implementation of pharmaceutical care is in a low level.

Keywords: pharmaceutical care, pharmacotherapy, implementation, survey, questionnaire

INTRODUCTION

Since the beginning of the past century, the practice of pharmacy has evolved from what could be called a medicinal cottage industry to “pill counting” to, most recently, a mean for controlling the costs of health care.

Albanian pharmacists entered the 21st century as apothecaries, whose function was to procure, prepare, and evaluate medicinal drugs.

About 25 years ago the picture began to change. Drugs become more sophisticated, and research into the mechanisms and effects of new drugs demonstrated the complexity of pharmacology. Faced with new information about such matters as drug-to-drug interactions, receptors-ligand-cell physiology, and the rising prevalence of iatrogenic disorders (ie, adverse reactions to medication), physicians and the public began to regain their respect for the pharmacist’s knowledge.

There now appears to be an obvious demand from the society and from the pharmacy profession itself for a professional role that restore emphasis on pharmacist’s direct responsibility to the individual patient.

Pharmaceutical care has been proposed as the mission for pharmacy practice and, in numerous studies, has been shown to improve patients’ health outcomes and decrease costs. An accepted definition of pharmaceutical care is “the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient’s quality of life.” However, because the pharmaceutical care concept is so comprehensive, it will take a number of years for the profession to achieve its mission.

A challenge for pharmacy educators is to instill in their students a strong clinical knowledge base, excellent communication skills, a high level of motivation and commitment, and self-confidence to assume responsibility for drug therapy outcomes.

Pharmaceutical care models require that pharmacists work with other health professionals, identify and solve problems, and communicate through oral and written reports. New pharmacy graduates, as well as experienced pharmacists, are not always adequately prepared to perform these new roles. Papers published in scientific journals argued that the effectiveness of pharmaceutical care is dependent upon its adoption by a majority of practicing pharmacists.

The concept of pharmaceutical care was introduced in 1990 and has become widespread since. Despite the promotion of its requirements, its evolution has not been as successful as expected. Pharmaceutical care is not yet a professional service included in the pharmacist’s routine practice.

In the framework of pharmaceutical care concept and practice, pharmacotherapy follow-up requires developing, implementing and monitoring an individual care plan to solve drug therapy problems.

Some authors have described and classified barriers for implementing pharmaceutical care; lack of resources, time, knowledge, and training in this field are raised as perceived barriers. Pharmacists from different backgrounds and environments need to find out what their difficulties are and prioritize the problems that need to be solved first. For example, in developing countries, severe
resource limitations seem to be one of the main barriers to overcome.

The aim of this study is to show the results obtained in the survey to assess current status of implementation of pharmaceutical care in Albania.

**Materials and Methods**

A cross-sectional descriptive survey was carried out in pharmacies allocated in urban and suburban area of Tirana city, and is based on analyses of self assessment survey questionnaires. 120 questionnaires, together with a covering letter were distributed to pharmacists during second half part of October 2018 at the event of continuous education. The self assessment questionnaire consisted of seven sections; section one - information about the respondent; section two – pharmacy situation in context, section three continuous professional development, section four medicines dispensing, section five self care services, section six point of care testing (health screening) services, section seven evaluation of self assessment.

Through questionnaires we have collected data for some indicators, like number of population of the zone where pharmacy is allocated, qualification of pharmacy staff in pharmaceutical care, medicines dispensing, inter professional collaboration, patient counseling and education, on self care, extent of diagnostic pharmaceutical services, knowledge of concept of pharmaceutical care, concerning of pharmaceutical care in the program of undergraduate, postgraduate or continuous education, as well as number of prescriptions per day, declaration and documentations of drug related problems, etc. Data from completed questionnaires were entered into Excel and transferred to the SPSS 19 (Statistical Package for Social Sciences) for statistical analysis.

**Results**

Of 120 questionnaires an overall response rate of 82.8 percent was achieved. 100 percent of the respondents were pharmacists, 96.66% were community pharmacists, 1.11% were hospital pharmacists and 2.22% were pharmacists that worked in distribution of medicines.

In the Graphs 1 – 3 and table 1 are presented results obtained in this survey for the Section II of self assessment.

**Graph 1**

Position of Pharmacy

- ≤ 10,000 inhabitants: 14%
- 10,000 - 50,000 inhabitants: 30%
- 50,000 - 150,000 inhabitants: 51%
- ≥ 150,000 inhabitants: 5%

**Graph 2**

Number of Pharmacists per Pharmacy

- 1 pharmacist: 80.00%
- 2 pharmacists: 20.00%
- 3 pharmacists: 0.00%
- 4 pharmacists: 0.00%
- 5 pharmacists: 0.00%
- 6 pharmacists: 0.00%
- ≥ 7 pharmacists: 0.00%

**Graph 3**

Pharmacists that Filled Questionnaires According Their Employment

- Community pharmacists: 97%
- Pharmaceutical distributors: 2%
- Hospital pharmacist: 1%
The number of prescription executed per day in pharmacy was oscillated from 15 to 200, with an average $43.0568\pm27.1239$, whereas the proportion between regular customers and all customers has resulted 15 – 80%, with a mean $48.8391\pm22.87006$.

Data obtained for Section III, continuous professional development, are presented in graphs 4 – 6

**Graph 4**

![Graph 4](image)

**Graph 5**

![Graph 5](image)

**Graph 6**

![Graph 6](image)

**Table 1**

<table>
<thead>
<tr>
<th>Total Score</th>
<th>Level of qualification in Pharmaceutical Care</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 9</td>
<td>No qualification</td>
<td>26.60</td>
</tr>
<tr>
<td>10 – 12</td>
<td>Low level of qualification</td>
<td>37.77</td>
</tr>
<tr>
<td>13 – 15</td>
<td>Medium level of qualification</td>
<td>26.66</td>
</tr>
<tr>
<td>16 – 18</td>
<td>High level of qualification</td>
<td>8.88</td>
</tr>
</tbody>
</table>

The data obtained for this section shown that 90% of pharmacists, included in this survey, had not completed university education in pharmaceutical care. Regarding the providers of pharmaceutical care, as it is shown in graph 5 about 88% is provided by university and professional organization, and 12% by pharmaceutical companies, and its frequency oscillated from more often than once a year to once in five years or less.

Results of this survey for Section 4, medicines dispensing are presented in graphs 7-14 and table 2

**Graph 7**

![Graph 7](image)
Data presented in graphs and table of section 4, medicine dispensing, have shown that professional assessment of prescription is done always before dispensing of medicine, pharmacists carried out medication review for every prescription, and its performance has resulted always in 60% of cases, and occasionally in 40%.

The status of declaration of ADRs is low. About sixty percent remained undeclared. Also, the patient follow-up after intervention or correction of ADRs in about 50% of cases was never performed.

In graphs 15-21 and table 3 are presented result of this cross-sectional survey for Section V, self care services.

Table 2

<table>
<thead>
<tr>
<th>Total Score</th>
<th>Level of Pharmaceutical Care implementation in Medicine Dispensing Process</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 80</td>
<td>No qualification</td>
<td>48.86</td>
</tr>
<tr>
<td>81 - 112</td>
<td>Low level of qualification</td>
<td>42.04</td>
</tr>
<tr>
<td>113 - 136</td>
<td>Medium level of qualification</td>
<td>6.81</td>
</tr>
<tr>
<td>137 - 160</td>
<td>High level of qualification</td>
<td>2.27</td>
</tr>
</tbody>
</table>
The above graphs and table of section V, self care services, shown that system of documentation of services and referrals to physician almost was missing, and the monitoring of inappropriate of OTC medicines was low.

Data obtained during this survey, regarding Section VI, point of care testing services are presented in graphs 21- and table 4.
Graph 21: Service available and its frenzy

- Daily
- 3-5 times per week
- Less or once a week
- Not offered

Graph 22: Discussion of the results in the context of patient's overall health and the lifestyle

- Always discussed
- Occasionally discussed
- Not discussed

Graph 23: Needs for referral to a physician explained to the patient when is necessary

- Always explained
- Occasionally explained
- Not explained

Graph 24: Providing patient with a report outlining the results of test

- Always provided report
- Occasionally provided report
- Not provided report

Graph 25: Offered services

- On pharmacists' initiative, as a component of risk factors assessment
- On patients' initiative, as a component of risk factors assessment service
- On pharmacists' initiative, as a measurement without risk factors assessment
- On patients' initiative, as a measurement without risk factors assessment

Graph 27: Documentation of key feature explanation and recommended follow-up actions

- Non documented: 65%
- Occasionally documented: 24%
- Always documented: 11%
In Albania more frequent health screening services are glucose measurement, blood pressure measurement, and body mass measurement. There were a low number of pharmacies that did not offer such services. The majority of pharmacies offered these services daily with initiative of patients’ as a component of risk factor assessment. Follow-up of patients’ after screening test is to be desired, because it was performed mainly occasionally.

**Discussion**

Pharmaceutical care has been accepted and adopted across countries. Barriers related to providing pharmaceutical care reported by community pharmacists around the world included a lack of funds, difficulty in accessing patients clinical and laboratory data, lack of clinical knowledge and motivation, lack of time and a private counseling area, little financial incentive, and low expectation of the pharmacy profession.

The main problem in Albania as well as in Europe from a pharmaceutical care perspective seems to be

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**Graph 29**

Interprofessional collaboration

59%

41%

**Table 4**

<table>
<thead>
<tr>
<th>Total Score</th>
<th>Level of Pharmaceutical Care implementation in point of care testing</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 33</td>
<td>No implementation</td>
<td>64.44</td>
</tr>
<tr>
<td>34 - 45</td>
<td>Low level of implementation</td>
<td>28.88</td>
</tr>
<tr>
<td>46-.55</td>
<td>Medium level of implementation</td>
<td>6.66</td>
</tr>
<tr>
<td>56 - 65</td>
<td>High level of implementation</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Graph 30**

Share of patients who received health screening and detected with dangerous symptoms have been referred to the physician

- 75 - 100%
- 50 - 75%
- 25 - 50%
- 10 - 25%
- 1 - 10%

0 10 20 30 40 %

- 1 - 10%
- 10 - 25%
- 25 - 50%
- 50 - 75%
- 75 - 100%
the lack of cooperation between pharmacists, medical doctors and nurses during their education, which leads to different professional cultures that inhibit cooperation during later professional practice.

All pharmacists were in agreement that patient counseling, profile review for detecting and resolving drug-related problems, communication with health care professionals, drug information skills, documentation of interventions, and monitoring of drug therapy were important.

The majority of the participants reported that they frequently checked for prescription appropriateness and performed interventions on prescriptions. This is a positive finding since the process of prescription review and intervention are fundamental to pharmaceutical care. Review of prescriptions and application of appropriate intervention are essential to allow the community and hospital pharmacists becoming more efficient, timely organized, and more patient focused.

The present study identified infrequent contact of the respondents with physicians in relation to information about drugs; this may be due to the high competency of prescribes or their lack of confidence in the pharmacists’ abilities.

Pharmaceutical care requires a strengthening of the professional relationship between pharmacists and physicians to offer mutual beneficial partnerships in which both share responsibility for patient care. Closer pharmacist-physician collaboration in the drug therapy management processes produces improved patient outcomes. Therefore, effective pharmacist-physician collaborative was working relationships, as well as pharmacists-nurse relationship needs to be improved in order to initiate successful implementation of pharmaceutical care.

The rate of frequent patient counseling provision was low, which could adversely affect patient’s compliance with prescription regimens. International research has consistently shown low pharmacist counseling rates in developing countries. The counseling of patients mainly on the pharmacy counter, the non-frequent provision of counseling, and the poor knowledge of respondents about the appropriate instructions for the use of some inhaler highlights the need for the pharmacists to explore ways of providing more private counseling areas and on the need to improve the knowledge base of pharmacists through continuing professional development.

A majority of respondents indicated their awareness of pharmaceutical care. However, the lack of uniformity in their responses to the questions about the main focus of pharmaceutical care and its objectives suggests a degree of confusion and lack of appropriate awareness and formal training in this matter.

By our opinion this degree of confusion is due the lack of disciplines of pharmaceutical care and pharmacotherapy in undergraduate and postgraduate university curricula, which are the most important disciplines for implementation of pharmaceutical care.

The current findings suggest the need for pharmacists to improve their knowledge base in pharmacotherapeutics with appropriate training to facilitate clinical problem solving. Their participation in educational programs on communication will allow them to develop stronger communication skills to interact effectively with other health care providers and patients, but these alone would not be enough to stimulate the practice of pharmaceutical care when the other barriers still exist. Thus, the lack of time and lack of staff as main barriers identified in this study need to be overcome. Lack of time is the most significant obstacle standing against the implementation of pharmaceutical care practice worldwide. However, it has been suggested that pharmacists could make more time if there was better delineation between the roles of pharmacist and technician. If pharmacists were less involved in dispensing and preparation duties, this would “free-up” time for patient-focused care. Through reorganization of pharmacy staff duties, a certain amount of time could be routinely scheduled for patient care activities.

According to evaluation of self assessment based in this survey resulted that in Albania has low level of implementation of pharmaceutical care. It score was 5.191. Comparing these results with results of previous year our opinion is that Albania was going forward in the road of implementation of pharmaceutical care.

References
1. Strand L M., Cipole R J., Morley P C. Current concepts on pharmaceutical care. 1992, 4
20. H.M. Bell, J.C. McElnary, and C.M. Hughes. A quantitative investigation of the attitudes and opinion of community pharmacists to...


