HISTORICAL NOTE

CONTRIBUTIONS OF DOCTORS FROM SERBIA TO THE ESTABLISHMENT AND INITIAL DEVELOPMENT OF THE FACULTY OF MEDICINE IN SKOPOJE, REPUBLIC OF MACEDONIA

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Abstract: Aim: To analyse and present the milestone activities and actors, with special emphasis on the contribution of doctors from Serbia to the establishment and initial development of the Faculty of Medicine in Skopje, Macedonia, in the period 1947–60 and beyond.

Method: A retrospective study based on archive materials, encyclopedias and jubilee publications of the Faculty of Medicine and Faculty of Dentistry in Skopje, other relevant sources of information, and a review of the relevant literature.

Results: The Faculty of Medicine in Skopje was founded in 1947 and the first meeting of the Teachers’ Council of the Faculty was held on March 17, 1947. The first generation of 153 students was enrolled in the autumn of 1947 and the first lecture was delivered on November 3, 1947.

More than 20 doctors from Serbia, half of them faculty staff, had joined the initiative of the Government of Macedonia for establishing the Faculty of Medicine in Skopje in 1947. They played leading roles in creating a number of the faculty departments/chairs, establishing 6 institutes and 6 clinics within the newly established Faculty of Medicine in Skopje in 1947 and in the first 10–15 years of its development.

Conclusion: The Faculty of Medicine in Skopje, founded in 1947, played a crucial role in the education of medical professionals, in improving the poor health status of the population and the overall further development of the health system and provision of health care to the population of Macedonia. The contribution of the doctors from Serbia to the establishment and initial development of the Faculty of Medicine in Skopje, during the period 1947–1960 and beyond, was remarkable and important.
Key words: faculty, medical; establishment, initial development; education, medical; teaching; Republic of Macedonia; doctors from Serbia.

Introduction

The liberation of Macedonia during the Second World War took place in November 19, 1944, revealing difficult economic, cultural and health situations: a devastated and ruined country, poverty and starvation in an exhausted population, a culture in regression, poor economic conditions and under-developed healthcare services, neglected pathology, numerous endemic spots and high morbidity and mortality of the population, especially of the newborn, infants and small children [1, 2].

The health status of the population in the years after the Second World War was very poor with more than 300,000 infected with malaria each year and about 30,000 diseased with active tuberculosis, which was a very dangerous and fatal disease at that time – in fact a disease of misery and poverty. Several thousand citizens suffered from typhus and paratyphus, cholera and other communicable, diarrhoeal and parasitic diseases. Morbidity and mortality rates were very high from anthrax, tetanus, rabies, skin and sexually transmissible diseases, as well as from goitre, and other endemic and widespread infectious diseases and diseases of the poor. Among children diphtheria, pertussis and other acute communicable diseases caused high rates of morbidity and mortality. The birth rate was about 35 per 1,000 inhabitants and the infant mortality rate about 150 per 1000 live births (136.1‰ in 1949). In 1948 the crude death rate was 13.7 per 1,000 inhabitants and the life expectancy at birth for males 45.9 and for females 48.2 years [3–7].

Some health service indicators reveal a very weak network of health institutions and health manpower. The total population in Macedonia (Census 1948) was 1,152,986 and the total number of doctors about 120 (the same number of nurses) which means one doctor and one nurse per 10,000 population. The total number of pharmacists was 96 or one pharmacist per 12,000 inhabitants. There were only 3 dispensaries (2 for children, one for TBC), 56 outpatient offices (50 GPs and specialists, 6 for school-children), 7 dental surgeries, 18 anti-malarial stations, 9 incomplete hospitals with 868 beds or 0.72 hospital beds per 1,000 inhabitants. There was only one Public Health Institute in Skopje. Health insurance was not developed and the health services delivered by the dominant private practice of physicians were very expensive and the income of the people very low [1–6, 8].

In such conditions, in 1945, the gigantic battle against poverty, diseases, centuries-long regression, and for the affirmation of a national identity and
autonomy began. It was especially important to create a network of health organizations working for primary and secondary health care (outpatient offices, polyclinics, dispensaries, hospitals), as well as institutions for specialized and super-specialized health care (clinics, institutes, public health centres, etc.). However, above all, an essential need was to start with the intensive education of medical professionals, qualified and educated medical staff that Macedonia badly lacked at that time [1, 2, 7].

These shortcomings and problems had to be overcome, centuries to be bridged, and the People’s Republic (PR) of Macedonia had to become not only de jure, but de facto an equal member of the fraternal community of the Federal People’s Republic (FPR) of Yugoslavia.

Besides the great need for the education of medical professionals there were some additional reasons and initiatives for establishing the Faculty of Medicine in Skopje. In 1945 there were only three medical faculties in the FPR Yugoslavia (in Belgrade, Zagreb and Ljubljana) per approximately 16,000,000 inhabitants. The total number of physicians at that time was about 3,000 or one physician per 5,300 inhabitants. In Macedonia, the situation was even graver, with only 120 physicians for the population of about 1,200,000 or one physician per 10,000 inhabitants [1, 2]. The existing medical faculties in Belgrade, Zagreb and Ljubljana alone could not provide the necessary medical personnel to solve the problem of lack of physicians and other medical personnel in the FPR Yugoslavia since the other republics also lacked physicians. Thus, an imperative was imposed for the establishment of two new medical faculties, in Skopje and in Sarajevo [1, 2, 9].

Another serious reason for establishing a medical faculty in Skopje was the necessity to have a medical centre with research institutions, such as a medical faculty, in order to deal with the specific pathology of this region and for profound examination of the national pathology, especially of infectious and endemic diseases, which were seriously aggravating the health and life of the population in Macedonia.

In 1946, the Government of the PR Macedonia, besides numerous operative decisions, reached an important strategic decision of long-term significance for the improvement of the health status of the population and further development of the health services and health system in Macedonia – to establish a Medical Faculty in Skopje.

Aim: The aim of this study is to analyse available archive materials and data and present the milestone activities and actors, with special emphasis on the contribution of doctors from Serbia to the establishment and initial development of the Faculty of Medicine, as well as the Department/Faculty of Dentistry in Skopje, Macedonia, in the period 1947–60 and beyond.
Methods

Various data and reports from Bulletins of the University for the election of lecturers and assistant lecturers at the Faculty of Medicine in Skopje, archive materials, encyclopedias and biographical dictionaries from Macedonia and Serbia, jubilee publications of the Faculty of Medicine and Faculty of Dentistry in Skopje and other institutions, a review of the relevant literature and other relevant sources of information have been used in order to meet the aim and objectives of this study.

Results

The real activities for establishing a Medical Faculty in Skopje began in 1946 when the Ministry of Public Health of the Government of PR Macedonia (virtue of Act no. 4,745 of August 30, 1946) addressed the Committee of Public Health of the Government of FPR Yugoslavia with a request to undertake action for the foundation of a Medical Faculty in Skopje [7, 10].

A Commission of 10 members (three of them were from the Faculty of Medicine in Belgrade: Prof. Dr. Aleksandar Gjorgjević, Prof. Dr. Miloe Vidaković and Assis. Prof. Dr. Aleksandar Sabovljev) was created by the Committee of Public Health of the Government of FPR Yugoslavia (virtue of Act no. 120 of Sept. 26, 1946) to explore the possibilities for establishing a Faculty of Medicine in Skopje [1, 2, 10]. The Commission, at a meeting held in Skopje on Oct. 22, 1946, analysed the situation and reached the conclusion that all the conditions for establishing a Medical Faculty in Skopje were fulfilled and suggested the constitution of a Commission of Registrars, making suggestions for its members. Concerning the facilities the Commission recognized the General County (Zemska) Hospital in Skopje, with its 640 beds, as providing conditions for clinical education and for the realization of preclinical education some premises of the Hygiene Institute were suggested to be used for the initial teaching process.

The Commission also recommended plans for the construction of buildings for all institutes and clinics to be prepared and realized, as a permanent solution for conducting the activities of the Medical Faculty in Skopje. Help was required from the Medical Faculties in Belgrade, Zagreb and Ljubljana, within the framework of their possibilities, concerning equipment, a library and other teaching materials. Additionally, the Commission recommended the creation of a core group of teachers for initiating the teaching process and, at the same time, sending young researchers from PR Macedonia on study training within the country and abroad, as well as other concrete measures that were to be undertaken by the governments of both PR Macedonia and FPR Yugoslavia.
The Commission of Registrars, consisting of 6 members and led by Prof. Dr. Miloe Vidaković, held its first meeting in November 25–30, 1946, in the premises of the Ministry of Public Health of the Government of PR Macedonia. An Operative Plan for further work and activities and a Plan for utilizing the existing premises for education and work at the Faculty of Medicine in Skopje were adopted. The problem of the lack of teaching staff was discussed and a Working Group was founded to provide information about experts from Macedonia and from the other republics of FPR Yugoslavia who would be eventual future teachers/professors at the Faculty of Medicine in Skopje. Plans for supplying necessary laboratory material, apparatus and professional books, and projection of the budget of the Medical Faculty in Skopje for 1947 were also made [1, 2, 10].

The second meeting of the Commission of Registrars was held in Belgrade on January 3, 4, and 5, 1947, and the third meeting on February 18, 1947. Then a proposal was made for naming the first 19 teachers (5 were full professors, 3 associate professors, 8 assistant professors and 3 honorary professors – assistants) at the Faculty of Medicine in Skopje [2, 10].

The Ministry of Public Health and the Ministry of Education of the Government of PR Macedonia accepted all the recommendations from the Commission of Registrars in Feb. 1947 and all the necessary procedures for establishing a Faculty of Medicine in Skopje were accomplished [2, 10].

The Government of Macedonia, on March 6, 1947, issued a Decree for the foundation of the Faculty of Medicine in Skopje and for appointing the first core group of 19 teachers/professors proposed by the Commission of Registrars, of whom three were invited and came from the Faculty of Medicine in Belgrade (Prof. Dr. Miloe Vidaković, Prof Dr. Božidar Niketić and Prof. Dr. Dimitrie Atanacković). Prof. Dr. Sterjo Bozdov was appointed to be the Acting Dean and Prof. Dr. Miloe Vidaković the Associate Dean of the Faculty [1, 2, 10].

When all these formal legal, professional and organizational preparations for establishing the Faculty of Medicine in Skopje were completed, the way was clear for the final opening of the Faculty.

The first meeting of the Teachers’ Council of the Faculty of Medicine in Skopje was held on 17th March 1947, chaired by the Acting Dean, Prof. Dr. Sterjo Bozdov. It was in fact the beginning of the real existence and activities of the Faculty of Medicine in Skopje [1, 2, 10, 11].

This meeting was important not only because it was the first, but also because of the conclusions adopted, related to the teaching process and necessary premises. The premises of the existing General County (Zemska) Hospital
were transformed into the first nine clinics (for surgery, internal medicine, pediatrics, gynaecology and obstetrics, psychiatry, infectology, dermatovenerology, ophthalmology, and for ear, nose and throat diseases) and the Tuberculosis Institute, all together sharing 640 hospital beds. The construction of the new clinical block-building started in 1953 with great support from Macedonian emigrants in USA, Canada and Australia. The building of the clinical block was completed and ready for use in 1956. During the 1950s a number of new buildings, clinics and accessory buildings were constructed, so that the Faculty of Medicine grew into a modern medical centre equipped with all the necessary preclinical and clinical facilities [1, 2, 10, 12–14].

The first six institutes of the Faculty of Medicine in Skopje were formed in 1947 (for anatomy, histology, chemistry with biochemistry, physiology, pathology and pharmacology). The institutes were located in the temporary prefabricated premises of the Secondary Nursing School and the Institute of Hygiene. At the same time construction of the building of the institutes began, into which the institutes moved in late 1948 and early 1949. Two amphitheatres, with 150 seats each, for theoretical lectures were constructed within the buildings of the institutes. The Institute of Pathological Physiology was founded within the Institute of Physiology in 1949, and received its own building in 1964, the same building where it is situated today. The Institute of Microbiology and Parasitology and the Institute of Forensic Medicine and Criminology were formed in 1952. The Institute of Epidemiology was founded in 1984, and the Institute of Social Medicine and the Institute of Immunology and Human Genetics were established in 1997 [7, 10, 13].

The first regular management body of the Faculty of Medicine in Skopje was elected, by secret ballot, at the fourth meeting of the Teachers’ Council, held on October 22, 1947. Prof. Dr. Sterjo Bozdov was elected as Dean, and Prof. Dr. Miloe Vidaković as Vice-dean of the Faculty of Medicine in Skopje.

This was the beginning of the regular work of the Faculty of Medicine in Skopje and the work of the Commission of Registrars ceased. The Teachers’ Council had the power of Faculty Management, having the right to resolve not only education-related issues, but organizational, staff, financial and other issues related to the work and existence of the Faculty [1, 2, 10].

The regular education process for the first generation of 153 enrolled students at the Faculty of Medicine in Skopje began on November 3, 1947, in accordance with the 6-year Plan (12 semesters) and study regimen (41 subjects/courses) identical to the plans and regimens of study in the other medical faculties in FPR Yugoslavia [1, 2, 7, 9, 11, 12, 15–20]. At that period of the initial educational process and real existence of the Faculty of Medicine in Skopje there were 19 teachers and 40 medical doctors as professional staff, some of them being assistant lecturers [14].
The Faculty of Medicine in Skopje was the basis for the formation of the Faculty of Dentistry and the Faculty of Pharmacy. The Clinic for mouth, jaw and dental diseases, established in 1948, became, in 1959, the Department of Dentistry at the Faculty of Medicine in Skopje, with an enrolled first generation of 37 students. The Department of Dentistry at the Faculty of Medicine grew out of the Faculty of Dentistry in Skopje in 1977/78. The Faculty of Pharmacy was also established in 1977/78, with dominant support in the establishment and implementation of teaching by many teachers from the Faculty of Medicine in Skopje [3, 10].

Doctors and lecturers from Serbia who contributed to the establishment and initial development of the Faculty of Medicine in Skopje

The leading doctors and lecturers from Serbia who were the most actively involved in activities and contributed the most to the establishment and initial development of the Faculty of Medicine in Skopje, in the period 1947–60 and beyond, are presented in Table 1 in alphabetical order.

The teachers from Serbia, shown in Table 1, contributed to the establishment and development of certain departments/chairs and organizational units (institutes and clinics) of the Faculty of Medicine in Skopje in the first years of its establishment and thus performed certain managerial functions. Below are shown the dates and conditions of formation of 6 institutes (pharmacology, microbiology and epidemiology, pathologic anatomy, physiology and pathologic physiology) and 6 clinics (gynaecology with obstetrics, neurosurgery and plastic surgery, internal medicine, neurology and psychiatry, infectious diseases), and the relevant chairs within them, at the Faculty of Medicine in Skopje, as well as the teachers, in alphabetical order by the first letter of the surname, who provided a key contribution to the establishment and development of these institutes, clinics and departments:

1. Institute of Pharmacology

At first, after its establishment in 1947, the Institute of Pharmacology was located in a shed in the grounds of the Faculty. When the building of the institutes at the Faculty of Medicine was completed in 1948, the Institute of Pharmacology was moved into new premises [9, 13]. The pharmacology course was taught by Professor Dr. Dimitrie Atanacković (Box 1).
Table 1

Leading doctors and lecturers from Serbia who contributed to the establishing and initial development of the Faculty of Medicine in Skopje in the period from 1947–1960 [8–9, 13, 20–22, 24–29, 31–33]

<table>
<thead>
<tr>
<th>Family and first name</th>
<th>First election as lecturer at the FM-Sk., field of expertise, year</th>
<th>Place and date of birth</th>
<th>Graduated at</th>
<th>Contributed to the development of a chair, institute, clinic, field</th>
<th>Managerial function and period of performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atanacković Dimitrie</td>
<td>Assistant Professor in Pharmacology, 1947</td>
<td>Cazin, B&amp;H, 8.10.1914</td>
<td>Faculty of Medicine in Belgrade, Serbia, 1937</td>
<td>Chair of Pharmacology and Institute of Pharmacology</td>
<td>Head of the Chair, 1947–57, Director of the Institute, 1947–57, Dean 1955–57, Vice-dean 1952–53 &amp; 1954–55</td>
</tr>
<tr>
<td>Berić Milenko</td>
<td>Professor in Gynecology and Obstetrics, 1951</td>
<td>Bačka Palanka, Serbia, 12.10.1899</td>
<td>Faculty of Medicine in Berlin, Germany, 1924</td>
<td>Chair and Clinic of Gynecology and Obstetrics</td>
<td>Head of the Chair, 1951–57, Director of the Clinic, 1951–57, President of the Association of Gynecologist and Obstetricians in Macedonia</td>
</tr>
<tr>
<td>Dragojević Bogosav</td>
<td>Professor in Surgery, 1958</td>
<td>Badnjevac, Serbia, 22.08.1902</td>
<td>Faculty of Medicine in Graz, Austria, 1930</td>
<td>Clinic of Neurosurgery and Clinic of Plastic Surgery</td>
<td>Head of the Chair of Surgery, 1958–65, Director of the Clinics of Surgery, 1958–65</td>
</tr>
<tr>
<td>Đorđević Aleksandar</td>
<td>Professor in Microbiology, 1949</td>
<td>Nis, Serbia, 17.09.1893</td>
<td>Faculty of Medicine in Nancy, France, 1924</td>
<td>Microbiology and Immunology</td>
<td>Member of the Commission for establishing the Faculty of Medicine in Skopje 1947, Responsible Lecturer in Microbiology &amp; Immunology 1949–50</td>
</tr>
<tr>
<td>Ignatovski Aleksandar</td>
<td>Professor in Internal Medicine, 1948</td>
<td>Smolenska County, Russia, 18.03.1875</td>
<td>Faculty of Medicine in Sankt Petersburg, 1899</td>
<td>Chair and Clinic of Internal Medicine and Infectious Diseases</td>
<td>Head of the Chair, 1948–50, Director of the Clinic, 1948–50</td>
</tr>
<tr>
<td>Karakašević Bogdan</td>
<td>Associate Professor in Microbiology and Epidemiology, 1952</td>
<td>Klenak, Serbia, 21.08.1908</td>
<td>Faculty of Medicine in Zagreb, Croatia, 1934</td>
<td>Chair and Institute of Microbiology and Epidemiology</td>
<td>Head of the Chair, 1952–78, Director of the Institute, 1954–78, Director of the Central Hygienic Institute 1952–54</td>
</tr>
<tr>
<td>Miletić Dragoslav</td>
<td>Associate Professor in Pathologic Anatomy, 1949</td>
<td>Piroć, Serbia, 31.10.1901</td>
<td>Faculty of Medicine in Belgrade, Serbia, 1933</td>
<td>Chair and Institute of Pathologic Anatomy</td>
<td>Head of the Chair, 1950–78, Director of the Institute, 1950–78</td>
</tr>
<tr>
<td>Niketić Božidar</td>
<td>Professor in Neurology and Psychiatry, 1947</td>
<td>Sremčka Kamenačka, Serbia, 18.02.1899</td>
<td>Faculty of Medicine in Graz, Austria, 1924</td>
<td>Chair and Clinic of Neurology and Psychiatry</td>
<td>Head of the Chair, 1947–63, Director of the Clinic, 1947–63, Dean 1950–51, 1957–58; President of MMS 1953, Dr. Bardovci 1956–63</td>
</tr>
<tr>
<td>Nikolić Mihailo</td>
<td>Assistant Professor, Infectious Diseases, 1952</td>
<td>Belgrade, Serbia, 7.10.1904</td>
<td>Faculty of Medicine in Belgrade, Serbia, 1937</td>
<td>Chair and Clinic of Infectious Diseases</td>
<td>Head of the Chair, 1952–54 Director of the Clinic, 1952–54</td>
</tr>
<tr>
<td>Vidoškić Miloje</td>
<td>Professor in Physiology and Pathologic Physiology, 1947</td>
<td>Belgrade, Serbia, 28.01.1898</td>
<td>Faculty of Medicine in Paris, France, 1926</td>
<td>Chair and Institute of Physiology, Chair and Institute of Pathologic Physiology</td>
<td>Member of the Commission of Registrars 1947, Head of the Chair, 1947–1957, Director of the Institute, 1951–1957, Vice-dean 1947–49, Dean 1952–53</td>
</tr>
</tbody>
</table>
Box 1. Dimitrie Atanacković, Professor of Pharmacology [13, 21–23, 24]

Prof. Dimitrie Atanacković was elected teacher in the subject of pharmacology, being one of 19 lecturers of the first core group at the Faculty of Medicine in Skopje in 1947.

Prof. Atanacković, as the first Director of the Institute of Pharmacology and the first Head of the Department of Pharmacology, organized and carried out the teaching in pharmacology for the first and several subsequent generations of students. He was the founder of the Institute providing necessary equipment of high standard at that time.

Prof. Atanacković was a great expert, scientist and pedagogue, working with great enthusiasm and love and seeking to convey to the students the necessary knowledge of pharmacology. He ceased his work at the Faculty of Medicine in Skopje in 1957 when he returned to the Faculty of Medicine in Belgrade and then moved to Rijeka.

In the period from 1955–57, Prof. Atanacković served as the Dean of the Faculty of Medicine in Skopje.

Prof. Dimitrie Atanacković died in Rijeka, Croatia, in 2004.

The Institute of Pharmacology received its temporary facilities in 1947 when it was established as an independent Institute within the Faculty of Medicine in Skopje [13]. At the same time the Chair/Department of Pharmacology was established. The Professor Dr. Dimitrie Atanacković was appointed Director of the Institute and Head of the Department of Pharmacology.

2. Clinic of Gynaecology and Obstetrics

The Clinic of Gynaecology and Obstetrics was created on April 25, 1951, with a capacity of 60 hospital beds, an operating theatre and birth-delivery space within the facilities of the previous Department for Gynaecology and Obstetrics of the General County (Zemska) Hospital in Skopje [13]. At first, only two specialist doctors in gynaecology and obstetrics and three doctors on specialization were employed at the clinic. Prof. Dr. Milenko Berić was appointed as the first director of the Clinic and Head of the Chair of Gynaecology and Obstetrics at the Faculty of Medicine in Skopje (Box 2).
Prof. Dr. Milenko Berić was born in Bačka Palanka, Serbia, in 1899. He graduated at the Faculty of Medicine in Berlin, Germany, in 1924, and then completed specialization in gynecology and obstetrics in Belgrade.

Prof. Berić was elected professor and Head of the Chair of Gynaecology and Obstetrics at the Faculty of Medicine in Skopje in 1951. He was the first Director of the Clinic of Gynecology and Obstetrics at the Faculty of Medicine in Skopje from 1951 to 1957. He organized and performed the teaching in the gynecology and obstetrics course until 1957, when he had continued his career at the Faculty of Medicine in Sarajevo, Bosnia and Herzegovina.

Prof. Berić was the first president of the Association of Gynaecologists and Obstetricians in Macedonia and served as a member of the Editorial Board of the Macedonian Medical Review. In 1960 he was appointed by the Swedish Academy of Science to be a member of the Group of Experts for proposals of candidates for the Nobel Prize in medicine and physiology.

Prof. Dr. Milenko Berić died in Novi Sad in 1975.

In 1952 the Clinic of Gynaecology and Obstetrics was moved to its newly adapted building with a total of 220 hospital beds (122 for gynaecological diseases and 98 for pregnant women and women after delivery), as well as 90 beds for newborn babies. Beside well-equipped operating theatres and delivery rooms the Clinic was strengthened by its own laboratory, radiology department, a farm with experimental animals and out-patient offices. In order to improve health care delivery the Clinic was supplied with new and modern equipment, instruments and other diagnostic and therapeutic devices. Many young and successful doctors from Macedonia and Serbia were employed and started specialization in gynaecology and obstetrics, creating the future professional and educational potential of the Clinic and many departments of gynaecology and obstetrics in Macedonia and some centres in Yugoslavia: Dr. K. Kjurčev, Dr. E. Kalamares, Dr. B. Berić, Dr. M. Shahpazov, Dr. M. Antić, Dr. A. Sivevski, Dr. M. Paljić, Dr. Z. Živanović, Dr. D. Popović, etc. The first director, Prof. Dr. Milenko Berić, served the Clinic till November 1957 when he moved to the Faculty of Medicine in Sarajevo. He made a great contribution to the prompt development and prosperity of the Clinic of Gynaecology and Obstetrics in Skopje with all important methods introduced in the domain of this field of health care and educational and scientific work [13].

3. Clinic of Neurosurgery and Plastic Surgery

The Surgical Clinic at the Faculty of Medicine in Skopje was established in 1947 with 160 hospital beds, and after three years (1950) the number of
beds increased to 180. In the next nine years, until 1959, the number of beds again increased to 275 [9, 13]. Early in the first years of its existence the clinic had the character of a general medical surgical facility, and later on was transformed into many super-specialist departments and sections that grew into today's special university clinics (Traumatology, Thoracic and Vascular Surgery, Abdominal Surgery, Urology and Paediatric Surgery). The first director of the Surgical Clinic, from 1947 to 1953, was Prof. Dr. Dimitrie Juzbašić and the second director of the Clinic and Head of the Chair of Surgery, in the period from 1954 to 1956, was Prof. Dr. Branko Oberhofer, both from the Faculty of Medicine in Zagreb [7]. Prof. Dr. Bogosav Dragojević was the third Director of the Clinic of Surgery and the third Head of the Chair of Surgery at the Faculty of Medicine in Skopje, from January 1958 (Box 3). In October 1958 he initiated the establishing of two independent departments and, later on, these departments became clinics. The first was the Neurosurgery Clinic, with 35 hospital beds, and Assist. Lecturer Dr. Petar Tofović was appointed as the first Head of the Clinic, while the second was the Plastic and Reconstructive Surgery Clinic, and Assist. Prof. Dr. Jovan Panovski was appointed the first Head of the Clinic. With his great enthusiasm, energy and experience from all fields of surgery, Prof. Dr. Bogosav Dragojević contributed remarkably to the further development of the surgical disciplines and to the development of surgeons and lecturers at the various clinics of surgery and for many departments of surgery within the general hospitals throughout Macedonia.

**Box 3. Bogosav Dragojević, Professor of Surgery [13, 21]**

Prof. Dr. Bogosav Dragojević was born in Badnjevac, Serbia, in 1902. He graduated at the Faculty of Medicine in Graz, Austria, in 1930.

Prof. Dragojević was elected teacher at the Faculty of Medicine in Skopje in January 1958. He was the third Director of the Clinic of Surgery and the third Head of the Department/Chair of Surgery at the Faculty of Medicine in Skopje in the period 1958–65.

He initiated it, and two new departments and future independent clinics were established towards end of 1958: the of Neurosurgery Clinic and the of Plastic Surgery Clinic.

Prof. Dragojević organized and performed the teaching in the surgery course until his retirement in 1965, when he returned to Belgrade. He was author of the first textbook on surgery in SFR Yugoslavia, published in the early 1960s.

Prof. Dr. Bogosav Dragojević died in Belgrade in 1989.
4. Clinic of Internal Medicine

The Clinic of Internal Medicine, with about 110 hospital beds, was one of the first nine clinics established at the Faculty of Medicine in Skopje in March 1947. The first Director of the Clinic of Internal Medicine was Professor Dr. Aleksandar Ignjatovski, who came from Belgrade in 1948 (Box 4). Prof. Ignjatovski led the Clinic of Internal Medicine in Skopje till his retirement in 1950. Then Assistant Professor Dr. Dimitar Arsov was appointed Director and Head of the Chair of Internal Medicine in the period from 1950–1974. In the first few years of its existence the Internal Medicine Clinic had the character of a general medical internal medicine facility, and later on, in 1953, was transformed into many super-specialist departments and sections that grew into today's special university clinics as follows [13]: Department/Clinic of Cardiology; Department/Clinic of Pulmology; Department/Clinic of Gastroenterology; Department/Clinic of Endocrinology; Department/Clinic of Haematology; Department/Clinic of Nephrology; Department/Clinic of Rheumatology; Clinical Laboratory for biochemical analyses, haematology and cytology; and Urgent Internal Medicine and Toxicology Clinic (Internal Medicine Policlinics).

Box 4. Aleksandar Ignjatovski, Professor of Internal Medicine [13, 21, 24, 26]

Prof. Dr. Aleksandar Ignjatovski was born in the Smolensk County, Russia in 1875. He graduated at the Military Academy in St Petersburg in 1899 and was elected Assistant Professor in 1905. In 1908 he moved to the Odessa Faculty of Medicine and in 1911 to the Faculty of Medicine in Warsaw. In 1922 he came to Belgrade and was elected professor of internal medicine for many years at the newly established Faculty of Medicine in Belgrade. In the period 1929–30 he served as Dean, and 1931–32 as Vice-dean of the Faculty of Medicine in Belgrade.

Prof. Ignjatovski was invited and elected a teacher and Head of Internal Medicine at the Faculty of Medicine in Skopje in 1948. He was the first Director of the Internal Medicine Clinic at the Faculty of Medicine in Skopje. In addition, he was also director of the Infectious Diseases Clinic in the period 1948–52. He organized and performed the teaching on the internal medicine course and performed research in infectious diseases, immunobiology and pathogenesis of arteriosclerosis. He is the author of the first edition in three volumes of the textbook "Internal Propaedeutics". He was also lecturer on infectious diseases from 1950 to 1952 and 1954 to 1955.

Prof. Dr. Aleksandar Ignjatovski died in Skopje in 1955.
5. Institute of Microbiology

The Institute of Microbiology started its activities in the academic year 1949–1950, with only one assistant lecturer in microbiology delivering all the practical lectures and laboratory exercises to the first generation of students. Theoretical lectures in microbiology through intensive courses for the first generation of students were delivered by Professor Dr. Aleksandar Djordjević (Box 5) coming from the Faculty of Medicine in Belgrade. Then, theoretical lectures and exams in microbiology were performed by Professor Dimitar Micev from the Faculty of Agriculture and Forestry in Skopje. The first temporary premises of the Institute of Microbiology were provided within the Deker’s shed in the grounds of the former Institute of Hygiene. In 1949 the Institute was moved into the Institutes building [9, 13]. The first teacher of microbiology, elected in 1952, was Associate Professor Dr. Bogdan Karakašević (Box 6). He was appointed Head of the Chair of Microbiology in 1952 while serving as Director of the Central Hygienic Institute in Skopje from 1952 to 1954.

Box 5. Aleksandar Djordjević, Professor of Microbiology [13, 24, 27]

Prof. Dr. Aleksandar Djordjević was born in Niš, Serbia, in 1893. He started medical studies in Nancy, France, in 1913 and after 10 months returned to Niš, Serbia to join the medical service of the military forces of Serbia during the First World War. He was released from military service in 1919 and in the same year he continued medical studies in Nancy, France where he presented his doctoral thesis on TBC of the lungs, in 1923. Then he completed specialization in bacteriology and hygiene in Paris, in 1924, and was elected as honorary lecturer in hygiene and bacteriology in 1925. He was elected professor in epidemiology and microbiology in 1946, and served as Vice-dean (1946–48) and as Dean (1950–51) at the Faculty of Medicine in Belgrade.

Prof. Djordjević, in 1946, was appointed Member of the Commission for establishing the Faculty of Medicine in Skopje and came to Skopje in 1949 as Responsible Lecturer in Microbiology and Immunology in 1949–50 for the first generation of students at the Faculty of Medicine in Skopje.

Prof. Dr. Aleksandar Djordjević died in Belgrade in 1969.

Prof. Karakašević was also an honorary teacher of epidemiology from 1952 to 1973 and from 1975 to 1976. During the next two years theoretical lectures within this course were delivered by Professor Dr. Save Mironski and in 1978 the university lecturer in epidemiology, Dr. Kiril Janev, was appointed and authorized to continue the teaching process in epidemiology with biostatis-
tics and medical informatics. Prof. Karakašević was also an honorary teacher of hygiene and social medicine at the Faculty of Medicine in Skopje from 1952 to 1956, and after that the university lecturer Dr. Nikola Georgievska took responsibility for theoretical lectures in this course [13].

**Box 6. Bogdan Karakašević, Professor of Microbiology and Epidemiology [13, 21, 28]**

Prof. Dr. Bogdan Karakašević was born in Kleenak, Serbia, in 1908. He graduated at the Faculty of Medicine in Zagreb in 1934 and completed specialization in bacteriology and epidemiology in 1941. Then, he continued to upgrade his education and expertise in Berlin, Paris, Hamburg, Amsterdam and Prague.

Prof. Karakašević came to Skopje in 1951 and served as a Director of the Central Institute of Hygiene till 1954. He was elected teacher of microbiology in 1952 and honorary lecturer in epidemiology and hygiene at the Faculty of Medicine in Skopje.

Prof. Karakašević was the founder and the first Head of the Department and the first Director of the Institute of Microbiology, in the period from 1952 to 1978. He was a hard-working and persistent person, devoted with great organization and love of teaching microbiology and epidemiology at the Faculty of Medicine until his retirement in 1978. He was author of the textbook "Microbiology and Parasitology", published in 1962, and reprinted in 1971 and 1977, and organizer of about 20 conferences of the doctors specialists in microbiology and epidemiology in SFR Yugoslavia.

Prof. Dr. Bogdan Karakašević died in Skopje, in 1996.

**6. Institute of Pathological Anatomy**

The Institute of Pathological Anatomy was founded in 1947, along with the founding of the Faculty of Medicine in Skopje [9, 13]. Initially the Institute of Pathology performed its activity at the Institute of Hygiene and in the hospital chapel, and then moved into its own premises in the building of the institutes within the Faculty, which was built in 1948. The first Head of the Institute of Pathology was Associate Professor Mirko Knežević from Zagreb who, after several months working in Skopje, returned to the Medical Faculty in Zagreb at the end of 1947 [7]. At the same time an invitation was extended to Associate Professor Dr. Dragoslav Miletić (Box 7), who came from the Faculty of Medicine in Belgrade and devoted the rest of his professional potential and career to the development of the Institute of Pathological Anatomy at the Faculty of Medicine in Skopje, till his retirement in 1978.
Box 7. Dragoslav Miletić, Professor of Pathological Anatomy [13, 24, 29]

Prof. Dr. Dragoslav Miletić was invited and came to Skopje in 1947 from the Faculty of Medicine in Belgrade. He was elected teacher of Pathological Anatomy in 1949.

Prof. Miletić was the second Head of the Department of Pathological Anatomy and the second Director of the Institute of Pathological Anatomy at the Faculty of Medicine in Skopje (after several months’ work by Prof. Mirko Knežević, who returned to Zagreb at the end of 1947).

Prof. Miletić organized and conducted the lectures on the pathological anatomy course for many generations of students of the Faculty of Medicine in Skopje until his retirement in 1978.

Prof. Dr. Dragoslav Miletić died in Belgrade, Serbia, in 1980.

The Institute of Pathological Anatomy played a significant role in delivering all types of education at undergraduate and postgraduate teaching and specialization levels. At the same time the Institute developed important diagnostic work, such as biopsy, autopsy and other types of analysis as an integral part of general medical practice in Macedonia and beyond. Special attention was devoted to research work as a factor in advancing the delivery of professional and teaching activities and health services [13].

7. Clinic of Neurology and Psychiatry

The Clinic of Psychiatry, with 38 hospital beds, was one of the first nine clinics established in March 1947. The renowned psychiatrist Professor Dr. Božidar Niketić was appointed as the first Director of the Clinic (Box 8).

Together with his first neurologist collaborator, Dr. Nemanja Vurdelja, who joined the Clinic in the period from 1948 to 1951, Prof. Niketić played a leading role in the education of the first doctors specializing in neurology and psychiatry. Prof. Niketić was the first Head of the Chair of Neurology and Psychiatry, delivering theoretical lectures in neurology and psychiatry from 1953 to 1963, while two young doctors, assistant lecturers, who graduated in Belgrade and Zagreb, Dr. Stefan Stefanovski and Dr. Petar Fildiševski, were responsible for the practical exercises and education of the students [13].

The hospital capacities of the Neurology and Psychiatry Clinic were increased in the next ten years to about 80 beds but were still insufficient to meet the much higher needs for the hospitalization of patients with serious mental disorders. In 1956 a special hospital for psychiatric diseases, Bardovci, was
established near Skopje as a unit of the Clinic till 1963, when it became an independent institution, the largest hospital for mental disorders today and an educational base of the Faculty of Medicine in Skopje with more than 700 beds and more than 50 doctors employed in it [13].

**Box 8. Božidar Niketić, Professor of Neurology and Psychiatry [13, 29, 30]**

| Prof. Dr. Božidar Niketić graduated from the Faculty of Medicine in Graz, Austria, in 1924. Dr. Niketić was invited and came to Macedonia in 1947, being one of the first core group of 19 lecturers at the Faculty of Medicine in Skopje. He was the first Director and made a great contribution to the development of the Clinic of Neurology and Psychiatry and of the Department/Chair of Neurology and Psychiatry at the Faculty of Medicine in Skopje. In addition, he was the founder and Director of the Bardovci Special Hospital in Skopje from 1956 to 1963. Prof. Niketić served as the Dean of the Faculty of Medicine in Skopje from 1950 to 1951 and from 1957 to 1958. In 1953 he served as the President of the Macedonian Medical Society and later on was President of the Association of the Medical Societies of Yugoslavia. He was the author of the monograph on "Injuries at Work" published by the Institute of Health Education in Skopje, in 1952. Prof. Dr. Božidar Niketić died in Skopje in 1963.

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8. **Infectious Diseases Clinic**

The Infectious Diseases Clinic, with about 70 hospital beds, was one of the first nine clinics established together with the Faculty of Medicine in Skopje in March 1947. In the period of the first few years the Infectious Diseases Clinic was under the auspices of the Internal Medicine Clinic, led by the Director, Prof. Dr. Aleksandar Ignjatovski, who started with delivering the first lectures on infectious diseases in 1950. The Clinic of Infectious Diseases was established as a separate organizational unit within the Faculty of Medicine in Skopje in 1952 and the number of hospital beds was increased to about 200 under the pressure of the very high number of patients with serious infectious diseases, i.e. malaria, polio, typhus and paratyphus, dysentery, diphtheria, anthrax, tetanus, pertussis, measles etc. who needed hospital treatment [13]. The first Head of the Chair and the first Director of the Infectious Diseases Clinic at the Faculty of Medicine in Skopje was Professor Dr. Mihailo Nikolić, who came from the Faculty of Medicine in Belgrade (Box 9).
Box 9. Mihailo Nikolić, Professor of Infectious Diseases [13, 24, 29, 31]

Prof. Dr. Mihailo Nikolić was born in Belgrade on 7.10.1904. He graduated at the Faculty of Medicine in Belgrade in 1937 and completed specialization in infectious diseases in 1948. He continued his professional and academic career at the Infectious Diseases Clinic within the Faculty of Medicine in Belgrade till his retirement in 1974.

In early 1950s, Prof. Nikolić was invited and came to the Faculty of Medicine in Skopje to establish the Chair and Clinic of Infectious Diseases.

Prof. Nikolić was Head of the Chair and Director of the Infectious Diseases Clinic at the Faculty of Medicine in Skopje from 1952–1954. Prof. Mihailo Nikolić died in Belgrade in 1980.

9. Institute of Physiology and Pathological Physiology

The Institute of Physiology was founded in 1947 with Department/Chair both for Physiology and Pathological Physiology. Two years later, in 1949, a separate Chair of Pathologic Physiology was created in the same premises [13]. The first Head of the Department/Chair and Director of the Institute of Physiology was Professor Dr. Miloe Vidaković, till his retirement in 1957 (Box 10). In addition, he was Acting Head of the Chair of Pathological Physiology from 1949 to 1952 when the Institute of Pathological Physiology was established. Assistant Professor Ishac Tadjer was appointed the first Director of the newly independent Institute of Pathological Physiology and Head of the Chair of Pathologic Physiology.

In the initial period of the first ten years after the establishment of the Institute of Physiology in 1947, Prof. Miloe Vidaković contributed a lot to the development of the educational processes, research activities and health care and clinical laboratory analyses of the Institute of Physiology. His contribution was remarkable for the establishment and initial development of the Faculty of Medicine in Skopje, being a member of the Commission of Registrars and first Vice-dean from 1947 to 1949, and then serving as Dean from 1952 to 1953.

As well as the above-mentioned leading teachers from Serbia, who made a key contribution to the establishment and initial development of certain departments, institutes and clinics of the Faculty of Medicine in Skopje, many other professional practitioners and auxiliary teaching staff participated in the work of the various institutes and clinics and in the realization of, first of all, prac-
Prof. Dr. Miloe Vidaković was elected teacher at the Faculty of Medicine in Skopje in 1947 and one of the first core group of 19 lecturers. He was a member of the Commission of Registrars for establishing the Faculty of Medicine in Skopje and the first Vice-dean from 1947–1949. In the period from 1952 to 1953 he served as a Dean of Faculty of Medicine in Skopje.

Prof. Vidaković was founder and first Director of the Institute of Physiology, and the Head of the Chair of Physiology in the period from 1947 to 1957, till his retirement in 1957.

Prof. Vidaković led the teaching of the physiology course within the above-mentioned period, provided the newly-established Institute with the necessary equipment, and educated younger colleagues who later developed into renowned experts.

Prof. Dr. Miloe Vidaković worked at the Institute of Physiology with great enthusiasm and diligence, and contributed to the discipline’s being developed to high level.

Prof. Dr. Miloe Vidaković died in Novi Pazar in 1964.

technical teaching activities. Among them the following specialist doctors and assistant teachers should be mentioned [13, 26, 34–40]:

– Vera Atanacković, assistant lecturer, Institute of Pharmacology, from 1947;

– Persida Berkeš-Tomašević, assistant lecturer in biochemistry from 1954, Collaborator in Forensic Medicine at the Institute of Forensic Medicine and Criminology, from 1957;

– Irena Ignatovska, doctor specialist in microbiology, Clinical Laboratory within the Internal Medicine Clinic, from 1948;

– Vladimir Jakovljević, doctor who started specialization in 1952 and was elected assistant lecturer in Neurology and Psychiatry, from 1957;

– Lenka Milakov, assistant lecturer in internal medicine, from 1957;

– Stanislav Mitrović, assistant lecturer in hystology and embriology, 1959;

– Dragoslav Pejčinović, assistant lecturer in Biology, 1957;

– Dragiša Stanić, assistant lecturer, Internal Medicine, from 1957;

– Aleksandra Volkanoska, assistant lecturer, Institute of Physiology, from 1949, who later on, in 1958, acquired the title Assistant Professor, then Associate Professor in 1967, and left the Institute with her retirement in 1973;

– Nemanja Vurdelja, doctor specialist in neurology, Clinic of Neurology and Psychiatry, from 1948; etc.
The Faculty of Medicine in Skopje was the basis for the formation of, at first the Department of Dentistry, in 1959, and then the Faculty of Dentistry in Skopje in 1977, as well as for the Faculty of Pharmacy in Skopje in 1977 [7, 41].

The Clinic for Mouth, Dental and Jaw Diseases had been established in 1948 within the Faculty of Medicine in Skopje, and in 1951 an in-patient department within the Clinic was created with 12 hospital beds. The first Head of the Clinic was Dr. Dimitar Smilev who was elected Assistant Professor and delivered the first lectures in the dentistry course in 1952. A number of young dentists were employed and sent for further education and specialization to the educational centres for dentistry in Belgrade, Zagreb and Ljubljana. Prof. Smilev led the process, with support from Prof. Dr. Joža Rant from the Faculty of Dentistry in Ljubljana and Prof. Dr. Laza Petrović from the Faculty of Dentistry in Belgrade, for preparing a proposal for establishing the Department of Dentistry in Skopje. In 1959, the Clinic for Mouth, Dental and Jaw Diseases was transformed into the Department of Dentistry within the Faculty of Medicine in Skopje, which grew into the independent Faculty of Dentistry in Skopje in 1977/78 [3, 10, 41].

The first generation of 38 students at the Department of Dentistry was enrolled in 1959. Due to the lack of faculty staff the teaching process was supported by lecturers from the Faculty of Dentistry in Belgrade. Among them the most prominent lecturer was Prof. Dr. Ivan Bikar (Box 11), who was for several

<table>
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<th>Box 11. Ivan Bikar, Professor of Orthodontics [13, 25, 41]</th>
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<td>Prof. Dr. Ivan Bikar was born in Sombor, Serbia, on March 29, 1903. He graduated at the Faculty of Medicine in Budapest in 1928, where he completed specialization in orthodontics in 1934. He was a pioneer of orthodontics in Serbia and one of the founders of the Faculty of Dentistry in Belgrade. Several times he served as Dean and Vice-dean at the Faculty of Dentistry in Belgrade. Prof. Bikar was author of the first textbook of orthodontics and many other teaching books and publications. In early 1960s Prof. Dr. Ivan Bikar was invited and supported the teaching process of the Department of Dentistry at the Faculty of Medicine in Skopje being honorary professor responsible for the course of orthodontics for several years. Prof. Dr. Ivan Bikar died in Belgrade, Serbia, in 1980.</td>
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years honorary professor responsible for the course in orthodontics, until some lecturers from Macedonia were educated and elected. A few other lecturers from the Faculty of Dentistry in Belgrade came and contributed to the teaching process: Prof. Dr. Milisav Teodosijević, Prof. Dr. Dragoljub Džaić and Prof. Dr. Milutin Kremžar (41).

Discussion

The Faculty of Medicine in Skopje was founded in 1947 and, during the past 65 years, has gone through many developmental stages, closely related to the health service development in Macedonia. The contribution of the Faculty of Medicine in Skopje to the development of health services and improvement of the health status of the population in the Republic of Macedonia has a special significance in the following areas [1, 3, 4, 7, 11, 42, 43]:

1. Establishment and further education of doctors and other medical staff. The first generation at the Faculty comprised 153 students. The number of the students enrolled in the first year of study varied considerably, from 130 to 400. The official promotion of the first 6 doctors graduated from the Faculty of Medicine in Skopje was held on December 30, 1953 [44, 45]. During the subsequent five years, until 1958, only 85 doctors from the first generation graduated. Most of them were promptly engaged in health service delivery throughout Macedonia [4, 7, 20, 44].

Up to the end of 2011, 16,778 students had been enrolled at the Faculty of Medicine in Skopje, of whom 10,366 had graduated. Shortly, before the formation of the Faculty of Medicine in Skopje, in 1947, the number of medical doctors in the PR Macedonia was about 120, and number of nurses was the same for a population of almost 1.2 million, or 1 doctor and 1 nurse per 10,000 inhabitants. In this period, the number of medical doctors employed in the Republic of Macedonia in the health services, both in the public and private sectors, was constantly increasing so that in 2010 the number of medical doctors reached the number of 5,364 (3,460 of these or 65% specialist physicians). The supply ratio of medical doctors to population in the Republic of Macedonia, which in 2010 was about 2.05 million, was 1 medical doctor per 380 inhabitants, and the ratio of doctors and nurses was 1 : 2.2 in 2010. In addition to undergraduate studies at the Faculty of Medicine in Skopje, starting from 1959 postgraduate studies for the degree of Master of Science have been conducted, with a duration of 4 semesters, while from 1983 a two-semester teaching curriculum organized for specializing doctors was introduced. Several years later, programmes for superspecializations were introduced. There were other forms of education such as: occasional courses, seminars, innovations in medicine and other forms of continuing medical education for physicians. In 2003 postgraduate studies in the field of public health were introduced, and in 2011–2012 the implementation of
2. Scientific research work. After World War II, a scientific approach to the study of the specific pathology in the PR Macedonia was of paramount importance for the successful eradication of malaria and other diseases, for a decrease in morbidity and mortality in general, and for increasing the working ability, quality of life and life expectancy of the general population. From 1947 to 2011 487 master's theses were defended (of which 47 were in the field of public health) and 564 PhD theses. In the past 65 years, a large number of doctors from the Faculty of Medicine in Skopje have studied, worked, learned and adopted skills in medical faculties and eminent scientific institutions in Belgrade, Zagreb and other centres in former Yugoslavia and in various countries in Europe and worldwide. After receiving new knowledge and experience, they have transferred it and applied it while teaching at the clinics and institutes of the Faculty of Medicine in Skopje. Furthermore, the teachers and collaborating staff from the Faculty of Medicine in Skopje have participated in various national and international professional meetings and scientific councils, exchanging and transferring modern scientific achievements in medicine from developed countries in the world to Macedonia. The exchange of teachers and associates with other countries, professional scientific visits abroad, and lecturers invited to other medical faculties, together with other forms of cooperation, have contributed to the establishment of permanent professional and scientific relations, as well as timely and extensive transmission and use of the latest medical advances in our environment.

3. Highest medical service. Clinics and institutes of the Faculty of Medicine in Skopje provide a highly differentiated and super-specialist health service, with contemporary diagnostic and therapeutic interventions for the patients with the most serious illnesses. For this purpose, clinics and institutes regularly purchase modern medical equipment, provide continuing education of the staff, introduce new diagnostic and therapeutic methods and thus keep up with the current achievements of medical science and practice in our country and the world.

The human resources, the first personnel, dozens of teachers from Macedonia and twice that number of teachers from medical faculties in Belgrade, Zagreb, Ljubljana and some countries in Europe had the main responsibility for the educational and healthcare activities in the period of the establishment and initial development of the Faculty of Medicine in Skopje [17]. Later academic and scientific staff were recruited primarily from the graduates at the Faculty of Medicine in Skopje. From the first generation of students who enrolled at the Faculty of Medicine in Skopje in 1947 and graduated from it, some 20 doctors received teaching titles at the same institution [4, 14, 15, 19, 25, 43, 45, 46]. Thus a reliable route for progress in the future and for further development.
of the health system was provided, while teaching and educational activities and research with new achievements and lasting results confirmed the reputation of the Faculty of Medicine in Skopje, of which Macedonia is proud. The Faculty of Medicine in Skopje is a member of the European and global community of institutions of this kind.

Medical science in the Republic of Macedonia today completely fits modern European and world trends. The Faculty of Medicine in Skopje has experienced a huge staff increase and today has a highly-specialized personnel and modern equipment. A total number of 19 teachers started the educational activities in 1947, and 65 years later, in 2011, the number of teachers was 215 (152 full professors, 38 associate professors and 25 assistant professors) as well as 36 scientific collaborators and 6 research advisers, 197 assistants and 73 junior assistants, organized in 33 chairs/departments [44]. The impressive growth in the number of the teaching staff shows the intellectual, educational and scientific potential of the Faculty. The Faculty of Medicine in Skopje now comprises 12 institutes and 3 teaching bases in the preclinical studies segment, and 25 clinics, 3 institutes and 7 teaching bases that participate actively in the teaching and scientific activities of the clinical segment [14, 19, 43]. The hard work and enthusiasm of teachers, doctors and other professional personnel for the monitoring and development of contemporary trends in medical science and practice have often exceeded the modest capabilities of the society.

Today, the Faculty of Medicine in Skopje is a modern medical institution, which long ago surpassed the borders of Macedonia with the results achieved and have become an integral and respected part of European and worldwide medical science and practice. With its extensive education, research and medical practice, the Faculty of Medicine in Skopje has justified the confidence of the Government and the citizens of the Republic of Macedonia while performing its important role as an institution of special social interest.

**Limitations of the study**

More detailed data about some of the doctors and lecturers from Serbia are not available within the sources used for this study. Nevertheless, the data we have collected from various sources provide a clear picture of the remarkable support and contribution of lecturers and other experts from Serbia in the establishment and initial development of the Faculty of Medicine and the Department/Faculty of Dentistry in Skopje.

**Conclusion**

In the past 60 years the Faculty of Medicine in Skopje has made and continues to make a major contribution to the creation of highly specialized
medical staff for the health care system, as well as to the provision of the best available health care for the population of the Republic of Macedonia and beyond. From its foundation until the present day the educational role of the Faculty of Medicine in Skopje has been essential in the education of more than 10,000 doctors in Macedonia. Well-prepared personnel in the health care system are the basic prerequisite and foundation for the organization and provision of quality health care. With the development and exchange of scientific research and findings, the Faculty of Medicine in Skopje, with its institutes and clinics, has grown into the leading health centre in Macedonia for the scientific study of health problems in general and those of special interest in the national pathology, with adequate application of modern methods in diagnosis and treatment.

The Faculty of Medicine in Skopje today is a high-level medical, educational, scientific and health care institution within Ss. Cyril and Methodius University in Skopje, and carries out health work through higher education, clinical care, scientific research, and university-level specialist training in the medical sciences and related fundamental fields. Macedonia officially became a part of the Bologna process for redesigning curricula and study programmes for higher education in September 2003.

The Faculty of Medicine in Skopje owes immense gratitude for the generous help extended, first of all, from the medical faculties in Belgrade, Zagreb and Ljubljana. In addition to the first generation of teachers in Macedonia, the faculty staff from other republics in the FPR Yugoslavia and from other countries in Europe contributed a great deal to the establishment and initial development of the Faculty of Medicine in Skopje. Especially great appreciation goes to some ten teachers and about the same number of assistant teachers and experts from Serbia, from various fields of medicine, who, together with the teachers and other professional staff from Macedonia and other republics and countries in Europe, invested their efforts, enthusiasm, creativity, expertise and professionalism in the establishment and initial development of the Faculty of Medicine in Skopje. Thus the Faculty of Medicine in Skopje and Macedonia is indebted to them for their contribution to the establishment and development of the Faculty of Medicine in Skopje and the development of medical science and health services in the Republic of Macedonia.

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Резиме

ПРИДОНЕС НА ДОКТОРИТЕ ОД СРБИЈА ВО ОСНОВАЊЕТО И ИНИЦИЈАЛИНОТ РАЗВОЈ НА МЕДИЦИНСКИОТ ФАКУЛТЕТ ВО СКОПЈЕ, РЕПУБЛИКА МАКЕДОНИЈА

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Цел: Да се анализираат и прикажат најзначајните активности и актери, со посебен акцент на придонесот на докторите од Србија, во основањето и ини-

Методи: Ретроспективна студија базирана на архивски материјали, енциклопеди и јубилејни публикации на Медицинскиот факултет и Стоматолошкиот факултет во Скопје, други релевантни извори на информации, и преглед на релевантна литератур.


Повеќе од 20 доктори од Србија, половина од нив наставен кадар, се придружиле на иницијативата на Владата на Македонија за основање на Медицинскиот факултет во Скопје во 1947 година. Тие одиграле водечка улога во создавањето на голем број катедри, како и за основање 6 институти и 6 клиники во новоформиранит Медицински факултет во Скопје во 1947 година и во првите 10–15 години од неговито развој.

Заклучок: Медицинскиот факултет во Скопје, основан во 1947 година, имало суштествена улога за едукација на медицински стручњаци, за подобрување на крајно влошената здравствена состојба на населението и за севкупниот настанак развој на здравствениот систем и обезбедувањето на здравствената заштита на населението во Македонија. Придонесот на докторите од Србија во основањето и иницијалниот развој на Медицинскиот факултет во Скопје, во периодот од 1947–1960 година и потоа, беше многу значаен и важен.

Ключни зборови: факултет, медицински; основање, иницијален развој; едукација, медицинска; настава; Република Македонија; доктори од Србија.

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