

## Pioneers of Medical Profession in Pakistan: Contributions of Armed Forces Doctors

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### ABSTRACT

It is nice to remember the pioneers of the medical profession in Pakistan. In the Civil setup, the Armed Forces personnel are generally not well known, and their contributions are often overlooked in published articles. In this article, the contributions of the Armed Forces doctors as pioneers and their role in developing the medical profession in the early period of Pakistan are described. At independence, the Pakistan Armed Forces inherited well-developed psychiatric units at major Military Hospitals with both indoor and outdoor facilities. Military Hospital Rawalpindi had a major psychiatric unit, which also trained postgraduates. Maj M. Shoaib (later Maj Gen) was the Head of the unit. He was trained in psychiatry before the partition and was the first to acquire D.P.M. (Lond) from Pakistan (at that time, it was the major qualification in psychiatry). CMH Lahore had a well-known psychiatrist, Maj Thaker Das. Later, Major General Ishrat Hussain and Brigadier Fazle-Haq made contributions. In the civil institutions, psychiatric units emerged decades later.

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### NEUROLOGY

In the mid-fifties, Major M.B. Azmi (later Lt Col) obtained MRCP (Edin) with neurology as a special subject and was practicing neurology at the Military Hospitals. In the 1960s, Maj Badar-ud-Din also gained MRCP (Edin) with a special subject of neurology and practiced neurology. Thus, the Armed Forces had a well-established neuro-psychiatric setup at Rawalpindi.

### NEURO SURGERY

Maj G.D Qazi (later Brig) was trained in Neurosurgery in the UK. In the early fifties, a neuro-surgical unit was established at CMH Rawalpindi. Major Nisar Mohammad Khan (later Maj Gen) established a neuro-surgical unit at CMH Lahore.

### CHEST SURGERY AND CHEST MEDICINE

In the early 50s, a chest surgical unit was established at MH Rawalpindi, headed by Maj Shaukat Hassan (later Lt Gen). This unit catered to patients not only from Pakistan but also received patients from the Middle Eastern countries. During that period, Lt Col M. Ayub Khan (later Lt Gen), a physician with special interest in pulmonology, was working at MH Rawalpindi, thus making a wellstaffed chest unit.

### UROLOGY

Maj. Siraj Jinnat (East Pakistan) established a Urology unit at CMH Rawalpindi in 70s. Lt Gen Shaukat Hassan, along with Major Mukhtar Shah, performed the first kidney transplant operation in Pakistan in the 1970s.

### GENERAL SURGERY

Col. M.N. Mahmood (later Lt Gen) was the first Head of Surgery of the Armed Forces, later followed by Col Saleem Mian (later Lt Gen), Lt Gen Shaukat Hassan, and Lt Gen Mahmud-ul-Hassan. They made significant contributions to establishing units of surgical and allied subjects, as well as to their further development.

Major Mahmud-ul-Hassan (later Lt Gen), a renowned surgeon and a brilliant teacher, made enormous contributions to surgery. He obtained his MS from Punjab University, was later trained in the UK, and also received training in Plastic surgery in the USA. He had a special flair for teaching Clinical Anatomy and was known as Prof. R.J. Last of Pakistan. Col Sabir Malik was a surgical specialist at CMH Lahore and also commanded the Artificial Limb Centre Unit in Lahore, making significant contributions to help injured patients during the wars.

### CARDIOLOGY

Major Nawab Ali, a brilliant physician from East Pakistan, was trained in cardiology at the London Institute of Heart Diseases by the legendary cardiologist Prof. Paul Wood. On returning to

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Pakistan, Major Nawab Ali established a cardiac unit at M.H Rawalpindi which later progressed to AFIC. Major Malik (later Brig), now Head of the Bangladesh cardio-vascular institute, had joined this unit. In the late 60s, Major Zulfiqar (later Major General) joined the cardiac unit, which developed to the present AFIC/NIHD, a center of excellence. Major Shaukat Ali Syed (later Maj Gen) did clinical cardiology at PNS Shifa Karachi. General Zia-ul-Haq had personal involvement in the development of AFIC. Major Arshad Mirza (later Lt Gen) did research work on blood pressure for the degree of MD Punjab.

Dr. G.M.K. Baloch, KEMC, was the first doctor from Pakistan to receive training in cardiology from Prof Paul Wood, thus being the first trained cardiologist in Pakistan. He had earlier obtained an MD from Punjab University, with cardiology as a special subject, and had published research papers before the partition and later too. Moreover, he was well-read, intellectual, and well-versed in Urdu and Persian literature. However, unfortunately, he died in his early forties. It is also worth noting that Dr. Minhas earned his MD from Punjab with cardiology as a special interest in the early 50s. He then went to the USA and became a well-known cardiologist there. Major General Akram and Col Cheema initiated cardiac surgery at AFIC. Major Waqar Ahmad (later Major General) developed the Paediatric Cardiology Department.

### HEPATO-GASTRO-ENTEROLOGY

Viral hepatitis was a prevalent disease in the Armed Forces. In 1959, while getting training in medicine at AFM College, I wrote a dissertation on acute viral hepatitis under the supervision of Brig M. Ayub Khan, D.G Medicine (later Lt Gen), on the epidemiological, clinical, and biochemical aspects, which was published in the AFM Journal.

In 1960, this study was extended for the MD thesis of the Punjab University under the supervision of Brig M. Ayub Khan and Col Nur Ahmad, Commandant AFIP. 250 needle liver biopsies (including the first liver biopsy ever done in Pakistan) were carried out during different stages of viral hepatitis, and histopathological changes were studied and correlated with clinical and biochemical lab studies. This was the first most extensive study on liver diseases in Pakistan.

Histopathological changes of Pakistani soldiers' biopsy material were compared with those of

American soldiers assigned to Korea, in collaboration with Col Smetana of AFIP, Washington, DC, USA. This became an international study.

It was found that the histopathological changes of Pakistani soldiers were atypical and much more severe. This was thought to be the result of a different strain of the hepatitis virus. Thereafter hepatitis E virus was discovered. Needle liver necropsies were also done to clinch liver disease diagnoses. Later in the years, Major Manzoor (later Lt Gen) and Major Iftikhar Malik (later Major General) conducted extensive studies on the epidemiological and serological aspects of viral hepatitis. I obtained an MD Punjab with a special subject in gastroenterology. I have published many articles on hepatogastroenterology. In the 1960s, upper GI fibre-endoscopy was introduced, and by the 1970s, lower GI endoscopy had begun. In the civil Gastro-Enterology Departments, the field appeared much later. Lt. Col. Arshad Hussain (later Lt. General) started doing ERCP procedures.

### GENERAL MEDICINE/INTERNAL MEDICINE

Major General I.D. Hassan succeeded Major General M. Ayub Khan as D.G Medicine contributed immensely to the development of medicine in the Armed Forces. Lt Col Ata-ul-Haq, Lt Col AR. Khan (later Major General), Brig Baseer, Lt Gen Arshad Mirza, Lt Gen Mehboob Ahmad, Lt General Afzal Najeeb, Major General Zaheer-ud-Din, Major General Tauqir Shah, Major General Nasir-ul-Islam, Col Saeed Awan, and Maj Gen Fazle Qadr contributed to General Medicine.

### PATHOLOGY

At partition, there was a central military path lab at Rawalpindi, which later developed into the Armed Forces Institute of Pathology. The lab developed advanced biochemical, microbiological, and histopathological investigations. Post-mortem work was done routinely. At AFIP Col Nur Ahmad histopathologist, Col Bokhari, Bacteriologist, Major Chaudhary Bacteriologist (East Pakistani, later Brig), Maj Karamat (later Lt Gen) Bacteriologist, Maj Iqbal Chaudhary (later Major Gen) Haematologist, Lt Gen M. Saleem, Haematologist, Maj M.I. Burney (later Maj Gen) Virologist were heads of their departments, At that time histopathological reports of AFIP patients seeking treatment at UK were accepted as such (i.e. were not reviewed in UK). Col Bukhari was the first bacteriologist in Pakistan who obtained the D Bact qualification, the highest qualification at that time, published many research papers, and had a sound

personal library. He had a profound knowledge of agriculture and animal husbandry sciences.

Col Bokhari became the project director of AFIP, NIH, PIMS, and Poly Clinic and established these institutions. He went to the WHO as an advisor. Ironically, his name is not inscribed in any of the federal institutions he built. Many publications came out of AFIP in those days, like visceral leishmaniasis in Northern areas, prevalence of typhus in Sialkot rural areas diagnosed first time, and many others. A new species of sand fly was discovered by Major General Burny and named "Phlebotomus burnyi". Prof. Sughra Ahmad, a brilliant histopathologist, made immense contributions to AFIP in the 1970s.

### **PAEDIATRIC MEDICINE**

The Armed Forces were quite late in setting up a Paediatric Medicine Department. It was established in the 70s by General Zia-ul-Haq and Major CM Anwar (later Major General), who was the first paediatrician in the Armed Forces. Major Shahida Badshah (later Major General) was trained in pediatric oncology and established the first pediatric oncology unit in Pakistan at CMH RWP. She was the first woman AMC specialist, promoted to the rank of Major General- also the first woman AMC doctor to become the Principal of the Army Medical College. She was also an efficient administer.

### **COMMUNITY MEDICINE**

Community Medicine has special importance in the Armed Forces. Prevention is not only better than a cure. It is, in fact, the only cure. In the earlier period, prevention and health promotion were given utmost importance. Col Bashir, Col Mumtaz Hassan, and Col Ashfaq contributed to its development.

Armed Forces Institute of Nutrition

After partition, a nutrition lab was established; Maj Siddique (later Col) contributed a lot to its establishment and development. Later, it was transformed into the Armed Forces Institute of Nutrition.

### **PRIMARYCARE/FAMILY MEDICINE/GENERAL PRACTICE**

Primary and secondary medical care account for approximately 99% of medical practice, while tertiary care constitutes only about 1%. In the earlier periods, the AMC GDMO cadre was well professionalized, but lately, primary care education has taken a back seat. Like the rest of the country, mono-organistic medical practice is consuming a significant amount of

medical/ surgical practice space, depleting the health budget, and yielding minimal benefits to patients, all at the expense of primary and secondary care, which are highly productive and cost-effective.

### **DERMATOLOGY**

At partition, major military hospitals had dermatology units with both indoor and outdoor facilities. MH Rwp had the central unit of this specialty headed by Major Jaffar (later Brigadier), who had training in the UK. Dermatology units appeared much later in the civilian institutions. Later, Major Ashfaq (later Major General) made a considerable contribution to the development of dermatology. Brig Seemi was the first female dermatologist and Head of Department at MH Rawalpindi.

### **ANAESTHESIOLOGY**

Maj. M.A.R Khan (later Maj Gen) developed anaesthesiology to the state-of-the-art level. Major Nazeer Chaudhry (East Pakistani) and Major Hassan (CMH Lahore) made many contributions. Col Saleem developed the "Pain Clinic".

### **RADIOLOGY**

Col. Ramzan, Col Amir-ud-Din, and Brig Saeed Malik played significant roles in the development of the Radiology Department.

### **OPHTHALMOLOGY**

The first two Heads of Armed Forces Medical Services, Lt Gen Farooqi and Lt Gen Burki, were ophthalmologists. Brig. Alim-ud-Din, Col Naseem (later Major General), and Lt Gen K. M. Akbar had significant contributions in its development.

### **ENT**

Col. G.N. Dar had a significant role in establishing the dept of ENT. Later, Lt General Ayub Khan (ENT surgeon) made contributions.

### **GYNAECOLOGY**

The Armed Forces lacked a Gynaecology Department and were dependent on civil institutions for obstetrics and gynaecology treatment of the wives of military personnel. In the mid-fifties, the Armed Forces enlisted a Polish gynaecologist, Col Kubacher, who established the Department of Obstetrics and Gynaecology at CMH Rawalpindi. Dr. Saeeda Akhtar was the first doctor enlisted in the AMC as a captain, received training in gynae at Rawalpindi, became the first lady Army Medical Officer, the first lady gynaecologist, and the first lady to attain the high ranks until the rank of Brigadier, and the first lady

officer to get the SI (M) decoration. Major Wajeeha Fatima Hassan succeeded Col Kubacher at CMH Rwp (later Brig). These lady officers and others did not get the rank of Major General due to the policy at that time. Brigadier Jahan Ara Pal made significant contributions to obstetrics and gynaecology, particularly in the face of misogynistic policies at the time. Despite not receiving the rank of Major General, she was an excellent teacher.

Col Sughra Fatima joined the AMC as a senior specialist gynaecologist and worked for a few years till she passed away due to malignancy. Col Sami looked after the Gynae-obs Dept of CMH LHR as an honorary Consultant for several years after independence with a lot of dedication and devotion. Prof. Saddiqui at Karachi and Prof. Zakia Minhas at Peshawar contributed their services to the Obs/Gynae Department. Prof. Khalida A. K. Akhtar contributed her services to the AFM College (new AFPGMI), CMH, and MH RWP as an honorary professor and honorary consultant. Dr Subhani worked as a senior civilian gynaecologist at PNS Shifa for an extended period.

### **CLINICAL PHARMACOLOGY**

In the early 1970s, a Department of clinical pharmacology and clinical therapeutics was established at the MH Rawalpindi/AFM College by Lt Gen Ayub Khan, and I was appointed to head it after receiving training. At that time in the UK, it was common for medical specialists to practice multiple subspecialties.

### **ARMED FORCES POSTGRADUATE INSTITUTE**

The Armed Forces were the first to establish a Postgraduate Medical Institute called A.F.M College (later Armed Forces Postgraduate Medical Institute). Col Jilani was the first Commandant of the AFM College and played a significant role in its establishment and development. Commandant's English wife, Ms Dorothy, established the college's library. It had a distinctive Department of experimental research (animal lab) in which anaesthetists and surgeons experimented and learnt various techniques through working on the animals. It had Departments of entomology and malariology, etc. Major Majid was a malariologist; he discovered a new anopheles mosquito named *Anopheles Majidae*. Major Majid was popularly known as Major Machar (Mosquito). In the 1970s, the AFM College established Basic Sciences Departments to provide courses in basic

sciences for FCPS Part I candidates, under the guidance of Lt Gen M. Ayub Khan.

These courses of Basic Sciences served students from the NWFP, AJK, and other areas also. I was made in charge of the FCPS-I Basic Sciences course and the Experimental Research Department.

### **ARMY MEDICAL COLLEGE**

Army Medical College was established in 1977. Brig Haq was the project Director. Lt Gen (Retd) M. Ayub Khan was the first Principal, followed by Lt Gen Arshad Mirza and Lt Gen Mehboob Ahmad. I became Principal in 1989. During that period, integrated medical teaching had begun, and active learning and problem solving were given emphasis. The subject of clinical pharmacology was introduced. Behavioural sciences and teaching of psycho-somatic medicine were highlighted; the examination system was revamped, introducing semester exams in addition to the annual exams. Upon completing training at clinical units and labs, regular assessment tests were conducted. In the question paper of medicine, separate sections of Pediatrics, Psychiatry, and Dermatology were introduced. Also, the practical exams in these disciplines were conducted by the respective professors in their subjects. The Army Medical College was the first to bring these reforms in medical education.

Basic Sciences Departments, such as Anatomy under Col Zaidi, Physiology under Lt Col Aslam (later Major General), and Pharmacology under Lt Col Najmi (later Brig), progressed well. Basic Sciences Departments developed integrated courses for the MBBS classes and produced post-graduates. Prof. Gulzar (Physiology) and Prof. Rose Madan (Physiology) contributed to the FCPS 2 courses as visiting professors.

### **CONTRIBUTION OF OTHER DOCTORS**

Later, many doctors made significant contributions, but as this article pertains to the early field of development of the medical profession in the Armed Forces, later developments are not included.

### **PAKISTAN ARMED FORCES MEDICAL JOURNAL**

Pakistan Armed Forces Medical Journal has been published since the 1950s and continues to this day. In the past, the journal was published regularly, contained more quality articles. Now the strength of the Armed Forces medical services has multiplied



enormous times but the interest in academic pursuits has declined.

### **ARMED FORCES MEDICAL SERVICES CHIEFS**

All these developments occurred during the period of early heads of Armed Forces Medical Services, Lt Gen Farruki, Lt Gen Burki, Lt Gen M.N Mahmud, Lt Gen Mian, and Lt Gen M. Ayub Khan. The College of Physicians and Surgeons of Pakistan (established in 1962) had Lt Gen Burki as its first president, who was also the Minister of Health in President Ayub Khan's cabinet. It was Lt Gen Ayub Khan who, after having started FCPS Part I courses, also started FCPS Part II courses, when he became Armed Forces Medical Services Chief.

### **ADMINISTRATION**

In the administration, Lt Gen H.K Khalil, Lt Gen C.K. Hassan, Lt Gen Faheem Ahmad Khan, Lt General M. Nasir, Major General Mohsin Pal, Col Amin ul Haq (staff officer of General Burki), and Brig Latif made significant contributions. Major General Shahida Malik was the first general duty medical officer of the AMC to be promoted to the rank of Major General. She later became the Director-General of Health of the Pakistan Federal Government, the first woman to hold this position.

### **LITERARY PURSUITS**

Maj. General Shafiq-ur-Rehman contributed to humor literature, while Lt Gen Mahmud-ul-Hassan and Maj. General Mohsin Pal contributed to Urdu poetry. Major Aziz had a unique collection of antique books. I authored four books and over 250 scientific papers, the highest number in the AMC. One of my books, "Rational Therapeutics," 1995 edition, received the National Book Foundation award. Lt Gen Arshad Mirza published a book, "Bedside - Medicine," in the year 2000.

### **ARMED FORCES MEDICAL RESEARCH COUNCIL**

The research council was established in the mid-fifties. Research work was done and papers published. Despite having very meager human and material resources, the Armed Forces Medical Services achieved a much higher research output and publication number compared to the present times. These days, doctors' priorities have shifted to commercial pursuits.

### **PATRONAGE OF ARMY CHIEFS**

AMC progressed under all the Army Chiefs except General Musharraf, who denuded it of many

higher ranks and gave them to the fighting arms. In the Fauji Foundation medical setup, medical superintendent jobs have been given to Artillery and other officers (medical supdts). It was General Zia-ul-Haq (leaving aside politics) who gave maximum higher ranks to the AMC, created institutions, and also gave higher ranks and facilities to the civil institutions.

### **MEDICAL DIRECTORATE**

Before and after independence, the Medical Directorate at GHQ held all administrative powers, including postings, etc., most of which have been taken away by the non-medical departments.

### **HOSPITAL ENVIRONMENT**

In the past, military hospitals were greener, featuring beautiful gardens, lush green parks, trees, flowers, and more. Now, mostly red concrete buildings have replaced greenery, losing all that natural beauty, which is scientifically proven to help in quick healing.

### **CIVIL AND MILITARY MEDICAL COLLABORATION**

It would be pertinent to point out that in the civil, eminent legendary medical personalities like Prof Amir-ud-Din, Prof M.A. Peerzada, Col. Ellahi Bukhsh, Col Sami, Dr. G.M.K Baloch, Col Muhammad Zia-Ullah, Prof M. Akhtar Khan, Prof Shujat Ali, Prof Yar Mohammad, Prof Yousaf, Dr. Rustam Nabi, Prof Juma (Neuro-surgeon), Prof Mushtaq Hassan (physician), and many others at Karachi and Dhaka made enormous contributions to the medical profession in Pakistan. Prof Peerzada was a fabulous orator. He won an All India debate (in the 1940s) on the topic of doctors versus lawyers.

In the early days of Pakistan, medical manpower was scarce, and the pioneers of medical professionals in Pakistan had to work day and night. Later, many doctors trained by them have also made significant contributions. Notably, Prof. Khawaja Saadiq Hussain, who taught and trained generations of undergraduates and post-graduates, is a notable example.

Doctors from the same fraternity, including specialists from the civil service, have been providing medical cover to the Armed Forces both during peacetime and in times of war. Likewise, Armed Forces doctors have been helping the civil population during calamities like floods, earthquakes. In the 1960s, a medical camp was established in Waziristan at Wana to cater to the needs of the civilian

population. I worked there for four months as a medical specialist. It attended patients not only from the tribal areas but also from Afghanistan.

We should remember and pay our gratitude to the pioneers of the Medical Profession in Pakistan. The alma mater of the medical profession is largely KEMC, the oldest medical institution in Pakistan. Dr. Farid of the former NWFP once remarked while addressing the KEMC alumni that all doctors in Pakistan are "Kemcolians", some directly, i.e., educated at KEMC, and others indirectly being taught by the "Kemcolians".

Currently, in Pakistan, like other spheres of life, the medical profession is infected with the virus of corruption, as remarked by Prof Khawaja Saadiq Hussain in his address to doctors. The profession is in steep decline. In the early years of Pakistan, it was hard to pinpoint a dishonest professional, while these days it needs effort to find an honest professional. Let us pray for the turn around to the old Pakistan where there was peace and security, teachers were role

models- political leaders Quaid's lieutenants were self-sacrificing, institutions were functioning well- Unfortunate change for the worse was brought by Mr. Ghulam Mohd, Sikander Mirza, Ayub Khan abetted by Mr. Bhutto to join Western/ American pacts which brought cold war to this region in earning Soviet Union's enmity and all the problems which we are facing up till now including loss of support for the Kashmir problem.

#### **LIMITATIONS**

Pakistanis are very poor at keeping records, unlike the British, who maintain the records and archives meticulously. As a result, I may have missed the contributions of many.

#### **DECLAIMER**

This manuscript was published in Pulse International Medical Viewspaper on October 15, 2014. It is now being published in PAFMJ after getting formal permission from the Chief Editor.

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