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Research Article

**A DECADE OF PROGRESS AND THE FUTURISTIC
CHALLENGES OF TUBERCULOSIS: PROSPECTS AND
POSSIBILITIES****¹Dr. Merab Ahsan, ²Dr. Nida-e-Farah, ³Dr. Saba Sabahat****¹Woman Medical Officer, Civil (THQ Level) Hospital, Dinga, ²WMO at RHC Kassoke
Hafizabad, ³Tehsil Headquarter Hospital Sambrial.****Article Received:** March 2019**Accepted:** April 2019**Published:** May 2019**Abstract:**

Pakistan is facing Tuberculosis (TB) as a major issue of public health. Its prevalence has always been neglected by the health department in past. Pakistan is among highly endemic countries for TB as it is ranked 8th among countries facing TB as a major issue. The total contribution of Pakistan in the Eastern Mediterranean Region is forty-four percent. WHO estimates sputum TB positive in Pakistan is 80/ 100000 every year [1]. TB contributes 5.1% in the national burden of disease with substantial socioeconomic burden [2]. National guidelines are under the responsibility of the National TB Control Program; they frame policies and workout on resources to arrest TB at district and provincial level. All healthcare and public facilitation centres shifted to DOTS back in 2000. DOTS program achieved a seventy percent diagnosis objective along with 85% of the treatment objective in the partnership built for TB arrest all over the world. Even in the presence of consolidation and expansion of TB program various issues still persist. Productive age group and socioeconomic status are most affected by TB. Formal health sector lacks professionals and as a result, a number of patients are diagnosed by untrained practitioners in the general health sector. Suboptimal case treatment and detection lead to failure of the achievement of set objectives of the TB control program. This research studies key issues of Pakistani healthcare system relating to TB. Moreover, TB prevention and control is also discussed in the research paper.

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INTRODUCTION:

Internet is a vital source for the availability of research material. Reliable access to these resources is still an issue for some of the healthcare professionals due to non-availability of the internet or lack of expertise. Reliability of the resources on the internet is another issue. Lower income countries can benefit from the free-of-charge facility of availability of literature on the internet such as papers and articles such as HINARI. PubMed is another reliable source which provides reliable abstracting and full access to the published content such as online journals. Availability of internet faces issues like non-availability of computers, limited internet access, low bandwidth, cost etc.

Most of the researchers have overcome scientific issues which were a barrier in the TB research and they have made their contribution in the field of research. Such articles include special bibliographies, human-related works, tuberculosis and Pakistan, original manuscripts and much more. It is important that funding agencies and government should recognize available opportunities and talent about research in Pakistan [3 – 5].

Priority has been given to pertinent issues related to the public health sector along with articles of Medical References. We also pay humble gratitude to all those producers who produced their publications for the access of readers without charging them especially about the TB research studies. Few publishers do ask for the processing fee before the consultation of certain articles [6 – 8]. Developing countries should be given favor to reconsideration about payment policies in order to carry out and publish research for legitimate purposes.

We reached all those physicians, healthcare managers, policy makers, senior nurses, medical researchers, faculty, staff, students and microbiologists who were researching as it is the need of time to support volunteer scholars who are putting their efforts in the field of research. This research studies key issues of Pakistani healthcare system relating to TB. Moreover, TB prevention and control is also discussed in the research paper.

CHALLENGES IN THE MANAGEMENT AND INFRASTRUCTURE OF TUBERCULOSIS:

WHO recommended DOTS strategy has been implemented in Pakistan for the diagnosis of TB since 2001 [9]. DOTS coverage was extended throughout the healthcare centres in the timeframe of our years; whereas, the achievement of the global set target was

far behind the set scheme. Various challenges that hinder TB control in Pakistan include limited private sector involvement, reduced community involvement, increased cases of multiple drug-resistant and increase in HIV patients. Injected drugs users increase the onset of HIV which also calls for the increase in the TB cases [10]. Aggressive steps are required to arrest HIV infected TB cases as the proportion is increasing at a rapid rate. Very small of GDP is dedicated to health in Pakistan. It is even less than neighbouring countries like Nepal, Bangladesh, India and others [11]. Western countries spend about ten percent of the total GDP on public health [12]. The defence budget is more than twenty percent; whereas, the health services are decreasing day after day in Pakistan [13]. This particular neglect is due to the reduced commitment of governments. Non-commitment leads to scarcity of resources in the health department. In this article, we have tried to highlight the issues and needs of the TB control program of Pakistan.

Private Sector Engagement:

Private sector extends medical advice to a number of patients including the informal and formal health sector. In the larger magnitude of TB, we cannot ignore the role of this informal and formal private sector. Stop TB program also considers and gives equal importance to the private health care sector. There is a need to integrate the private sector in then national DOTS strategy. We need to extend better logistic, educational and policy support to the private sector which will make TB control guidelines even effective including DOTS, MDR-TB and DOTS-plus [14, 15]. Previously a success has been achieved in sexually transmitted disease management in the private sector but this model has not been implemented on TB arrest program [16].

Logistics and Drug Management:

TB DOTS strategy success lies in proper anti-TB drugs management which is an essential part that cannot be neglected [17]. Major impediments in this regard include the shortage of first-line management drugs in the market and diagnostic facilities. The distribution of anti-TB drugs is poorly reliable even than the routine goods of the public sector such as commercial goods, soft drinks and petrol. An effective supply chain, quality assurance, inventory management and proper intake of drugs by the patients is essential for TB treatment.

Special Facilities:

We also need to target jails, prisons, risky occupational groups, street population and illicit drug

users for TB and HIV. Confined people should also have a link between regular communities living.

Operations Research:

Uncontrolled private sector activities, defaulter's management, reduced communal involvement are necessary issues which are to be addressed in operational research [18]. Field-based research can highlight issues of the community, patients and policymakers along with sustainable solutions which can improve and enhance the utilization of the students [19].

TB/HIV and MDR-TB:

TB/HIV and MDR-TB are serious health issue which is rapidly emerging in Pakistan; whereas, the professional expertise and technical support are also not at the required level. MDR-TB with the help of DOTS-plus strategy and TB/HIV with the help of communication and coordination program are challenges for the national TB program as these emerging issues are beyond the capacity of DOTS strategy [20]. TB experts are familiar with these issues; whereas, JMPA readers are not that much familiar.

FUTURE RESEARCH ROLE IN THIS PROSPECT:

Research has a positive and primary role to play in this regard. There are a few questions which need to be answered:

- How do we can diagnose and manage primary asymptomatic TB through a higher rate of BCG background and levels of INH resistance? What is the appropriateness level of isoniazid preventive management?
- How strategies can increase the coverage of DOTS in the prevalent logistic challenges? Can we engage villages through better community-based programs?
- What ways can help in the optimization of TB and HIC care diagnosis from a patient's perspective?
- Can we extract better outcomes than traditional sputum assessment? Which resistance assay is most appropriate with available laboratory resources?
- Which are the best and worst programs and Why?
- What strategy can effectively increase healthcare funding by donors and government?

These questions along with various other questions are still not answered. Research can answer such questions and suggest a possible way out of the situation for the improvement of the program. Coverage of TB programs may also be enhanced

scientifically such as implementing operational research.

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