ORIGINAL ARTICLE

Challenges General Practitioners Face in Pursuing Postgraduate Training at Primary and Secondary Healthcare Centres in Punjab, Pakistan

Zia ul Hassan[1*], Saira Bano[2], Khudija Arif[1], Marriam Sheraz[1], Dur e Nishat[1] and Nasir Shah[2]

[1]*Fatima Memorial Hospital, Lahore, Pakistan*
[2]*Central Institute of Family Medicine, Lahore, Pakistan*

Abstract

Background: Primary healthcare is the foundation of any effective healthcare system. Postgraduate training in family medicine is important, but in Pakistan, we face various challenges and barriers to its implementation.

Objectives: This study aims to explore the barriers faced by general practitioners (GPs) working in the public sector at primary and secondary healthcare centers in pursuing postgraduate training. It also examines the association of these challenges with social and administrative factors.

Methods: This five-month cross-sectional study involved 1,037 randomly selected medical officers from public health facilities in Punjab, excluding tertiary hospitals and private practitioners. Data were collected *via* a pre-tested, mailed questionnaire covering demographics, training needs, and job challenges, with an 80% response rate. Analysis was conducted using SPSS 24 with descriptive statistics for frequency and percentage calculations.

Results: The study found that out of 1,037 doctors, 93% (n = 964) had no post-graduation. A significant number of doctors consider the lack of leave as a barrier, while 49.2% (n = 375) identify the lack of computer facilities, and 47.4% (n = 369) report the unavailability of the internet as a barrier to their post-graduation training.

Conclusion: Barriers to post-graduation training in family medicine can be resolved by flexible blended online and live training programs improving technical support and addressing manageable job issues. After providing opportunities Government should make post-graduate programs compulsory for better care of patients.

Keywords: *Postgraduate training, family medicine, general practitioners, barriers, training structure, flexibility.*

INTRODUCTION

Primary healthcare physicians form the backbone of the healthcare system [1]. In Punjab, medical officers (MOs) at primary healthcare centers are appointed by the Primary and Secondary Healthcare Department based on their basic medical graduation and one-year house job, without specialized training in Family Medicine [2]. However, globally, evidence suggests that patient care provided by untrained family physicians lacks comprehensiveness and does not meet the standard of care [3].

The need for structured postgraduate training for general practitioners in Pakistan has been highlighted in postgraduate medical education evaluations by the Higher Education Commission of Pakistan [4]. A 2018 study in Canada demonstrated that physicians could provide improved patient care after postgraduate training, even in a single module such as ultrasound [5].

Research in Texas identifies a lack of enough primary care physicians to meet its growing population's healthcare needs [6] and this shortage in the United States is expected to worsen, particularly in rural areas [7]. Similarly, local studies emphasize the shortage of trained family physicians in Pakistan [8].

Lack of logistical support, inconsistent learning activities across teaching sites, and limited supervision due to staff shortages identified training challenges in African rural sites [9].

Limited research has been conducted on barriers to postgraduate training for GPs in Pakistan. A 2020 study from Queensland identified personal and work-related constraints as barriers [10]. In 2018, research from Ayub Medical College found that a lack of awareness about postgraduate training in Family Medicine hindered participation; however, an awareness session significantly increased interest [11] lack of a structured training pathway for family medicine was also a barrier in Pakistan [12]. Graduates from public medical schools have shown a greater inclination toward Family Medicine specialization compared to those from private institutions [13].

Experts have identified barriers such as a lack of stipends, faculty shortages, an unsupportive College of Physicians and Surgeons Pakistan (CPSP) policy, and poor career prospects [5]. GPs will evolve into data-driven care managers, adapting to technological and global changes while requiring training for continuous transformation [14]. Research at the University of

**Corresponding author: Zia ul Hassan, Fatima Memorial Hospital, Lahore, Pakistan, Email: Zia.hassan@fmhcmd.edu.pk; drziaulhassan@hotmail.com*
Received: September 04, 2024; Revised: March 24, 2025; Accepted: May 21, 2025
DOI: https://doi.org/10.37184/lnjpc.2707-3521.7.67

Auckland identifies funding shortages, time constraints, and clinical workload as barriers, but also notes that inter-professional learning and flexible course formats could be beneficial [15].

Recent literature underscores the importance of flexible postgraduate training programs that accommodate working GPs [16]. Despite Punjab's efforts to expand the trained GP workforce, no prior study has been conducted at the primary healthcare level to identify training barriers. Understanding these barriers is crucial for designing effective training programs.

METHODOLOGY

This cross-sectional study was conducted over five months, from August to December 2018. The survey was led by the Department of Family Medicine, University of Health Sciences (UHS), in collaboration with the Primary and Secondary Healthcare Department, Punjab. Approval of this study was obtained from the Research Ethics Committee of UHS. Participation was voulntary with informed consent of participants, and responses remained confidential. A 10% subset of responses was validated through personal interviews.

A total of 1,037 medical officers participated in the study. The sample size was calculated using a 95% confidence level and a 2.3% margin of error for a total population of 2,500. Simple random sampling was employed.

We include medical officers working in Basic Health Units (BHUs), Rural Health Centres (RHCs), District Headquarters (DHQs), and Tehsil Headquarters (THQs) in Punjab and exclude medical officers working in tertiary care hospitals and General practitioners in the private sector.

Data Collection Procedures

A structured five-page questionnaire containing 35 questions including both multiple-choice questions and open-ended questions., was mailed to participants, it contains questions about Demographic & Educational Background, job experience, initial challenges, learning methods, interest in further education, preferred training topics and formats, barriers to participation, and suggestions to improve healthcare and retain doctors in rural settings. The questionnaire is validated through pre-testing with a small sample to ensure clarity, reliability, and relevance, followed by refinements based on feedback. A stamped return envelope addressed to UHS was also included. Informed consent was also sent with demographics. Participants responding to the survey also submitted thier online consent form along with their survey response. Non-respondents received follow-up telephone reminders. Response rate was 80 %. The returned questionnaires were analyzed using SPSS version 24.

Data Analysis

Descriptive statistics were used in terms of frequency and percentage for sumamrizing categorical variables.

RESULTS

A total of 1,037 doctors participated, with 60.6% (n=633) being male and 38.6% (n=404) female. The majority (60.3%) were aged 21-30 years. Participant distribution by age in different healthcare facility levels is shown in Fig. **(1)**.

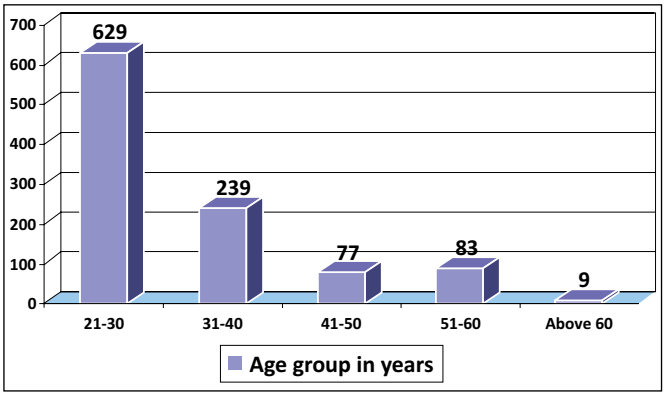

Fig. (1): Participant distribution by age.

Doctors participating in the survey were posted at primary health care centers at different levels. These proportions are shown in Fig. **(2)**.

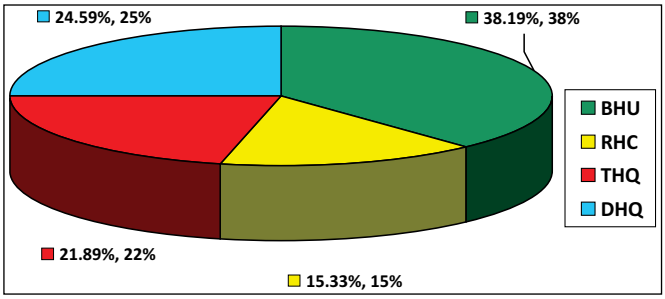

Fig. (2): Posting of participants at different healthcare centers.

Of the 1037 doctors, 825 (79.55%) have less than five years of experience as medical officers. A detailed breakdown is provided in Fig. **(3)**.

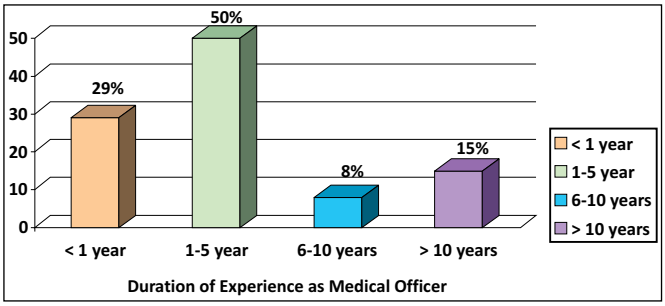

Fig. (3): Duration of experience as medical officer.

Among respondents, 93% (n=964) had no postgraduate qualification. Only 5.4% (n=57) had a certificate-level Family Medicine education, and just 1.6% (n=16) held a postgraduate degree in Family Medicine.

Table 1: Challenges faced by participants in acquiring postgraduate training.

Challenges in Acquiring Postgraduate Training	Frequency	Percentage
Difficulty in getting leave	804	87.5
High workload	675	77.4
Lack of facilities like computer	375	49.2
Lack of internet	369	47.4
Lack of electricity	226	30.6
Long distance traveling	646	73.2
Lack of transport facility	481	68.1

A significant proportion (88.4%, n=912) reported difficulties in pursuing postgraduate training while continuing their jobs. The most commonly reported barriers were lack of study leave and excessive workload other obstacles, such as remote assignments, limited transportation, and inadequate access to computers, the internet, and electricity, are illustrated in Table **1**.

Over 43% (n=428) of participants expressed dissatisfaction with their ability to provide quality care, with 80.5% of them desiring to enhance their skills. Notably, 86.9% (n=825) of doctors expressed interest in university-level training programs, with 76.6% (n=632) specifically wanting Family Medicine training.

Our study found an interesting response from a few number (n: 19) doctors who said they have sufficient knowledge and do not want to take part in any post-graduation program.

DISCUSSION

Globally, Family Medicine training is a standard requirement for primary care physicians. However, in Pakistan, GPs work without specialized training, leading to suboptimal patient care [3]. Our study found that only 1.6% of primary care doctors in Punjab had a postgraduate qualification in Family Medicine, highlighting a significant gap.

The primary barriers identified as heavy workload and lack of study leave are interlinked. Without administrative support for academic leave, doctors struggle to balance work and education. Additionally, distant postings and inadequate transport create logistical challenges. Addressing these issues could facilitate postgraduate training and improve patient care.

Our findings align with international literature, where workload and financial constraints are commonly reported barriers [10, 17]. Unlike some high-income countries where inter-professional learning and flexible training models support continued education [17], Pakistan lacks structured policies to facilitate postgraduate training for GPs. Continuous training is essential for improving PHC quality [18].

To improve postgraduate training for general practitioners, structured academic leave policies and increased staffing are essential to ease workload pressures. Blended learning consistently outperformed traditional methods in improving knowledge outcomes in health education [19]. Healthcare centers should be equipped with computer and internet facilities to support digital learning. Flexible training models, including part-time and online programs, can accommodate working GPs. Transport facilitation should be provided for distant postings, and mandatory assessments should identify untrained GPs requiring further training. Online, video-based CME can effectively improve knowledge, competence, and confidence in management for primary care [20].

CONCLUSION

Postgraduate training in Family Medicine is essential for improving patient care in Pakistan's primary healthcare system. To support doctors in pursuing postgraduate training, policymakers should introduce flexible policies that allow medical officers to continue their education without leaving their jobs Addressing barriers through administrative, logistical, and structural reforms can enhance participation. A significant proportion of doctors are willing to undertake postgraduate training if obstacles are removed. Implementing flexible training programs facilitates online learning and improved financial support structures could strengthen Pakistan's primary healthcare workforce and align with broader health policy goals, such as universal health coverage.

LIST OF ABBREVIATIONS

CPSP: College of Physicians and Surgeons
GP: General Practitioner

ETHICS APPROVAL

Approval of this study was obtained from the Research Ethics Committee of UHS (Approval no.: UHS/REG-18/ERC/186). All procedures performed in studies involving human participants followed the ethical standards of the institutional and/ or national research committee and the Helsinki Declaration.

CONSENT OF PUBLICATION

Informed consent was obtained from the participants of this study.

AVAILABILITY OF DATA

Data is available within the article. For any other information contact the corresponding author.

FUNDING

None.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

ACKNOWLEDGEMENTS

Declared none.

AUTHORS' CONTRIBUTION

ZH, SB: Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work;

ZH, SB, KA, MS, DN, NS: Drafting the work or revising it critically for important intellectual content;

ZH, SB, KA, MS, DN, NS: Final approval of the version to be published;

ZH, SB, KA, MS, DN, NS: Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

REFERENCES

1. Haque M, McKimm J, Naseer M, Dhingra S, Islam MZ, Kibria GM, *et al.* Strengthening primary health care services to help prevent and control long-term non-communicable diseases in low- and middle-income countries. Risk Manag Health Polic 2020; 13: 409-26.
   DOI: https://doi.org/10.2147/RMHP.S239074
2. Primary & Secondary Health Care Department Punjab. [Internet]. 2020 Mar 27. Available from: pshealth.punjab.gov.pk
3. Henry TL, Rich EC, Bazemore A. Comprehensiveness—the need to resurrect a sagging pillar of primary care. J Gen Intern Med 2022; 37: 229-31.
   DOI: https://doi.org/10.1007/s11606-021-07071-2
4. Biggs JSG. Postgraduate medical training in Pakistan: Observations and recommendations. J Coll Physicians Surg Pak 2008; 18(1): 58-63.
5. Micks T, Braganza D, Peng S, Baylis J, Woo MY, Lewis D. Canadian national survey of point-of-care ultrasound training in family medicine residency programs. Can Fam Physician 2018; 64(10): e462-7.
6. Nwabeke JC. Is a shortage of specialist physicians disproportionately affecting access to care in rural counties with federally qualified health centers: Trends in Texas from 2012 & 2017? Medica 2017 [cited 2025 Mar 15]. Available from: https://medica-musc.researchcommons.org/theses/528.
7. Walensky RP, McCann NC. Challenges to the future of a robust physician workforce in the United States. N Engl J Med 2025; 392(3): 286-95.
   DOI: https://doi.org/10.1056/NEJMsr2412784
8. Sabzwari SR. The case for family medicine in Pakistan. J Pak Med Assoc 2015; 65(6): 660-4.
9. Mbuka DO, Mubuuke AG. Family medicine rotation in Botswana: Experiences of fifth-year medical students in decentralized rural training sites. Pan Afr Med J 2023; 44: 67.
   DOI: https://doi.org/10.11604/pamj.2023.44.67.38504
10. Peel R, O'Sullivan B, Lawrenson R, Seubert L. The impact of localized general practice training on Queensland's rural and remote general practice workforce. BMC Med Educ 2020; 20(1): 119.
    DOI: https://doi.org/10.1186/s12909-020-02025-4
11. Khan AJ, Afridi SA, Hashim M. Perception of health professionals towards the scope of family medicine in the healthcare system of Pakistan. J Ayub Med Coll Abbottabad 2018; 30(2): 248-52.
12. Amin F. Workforce issues of general practice in a developing country, Pakistan. Aust J Gen Pract 2018; 47(9): 651-3.
    DOI: https://doi.org/10.31128/AJGP-02-18-4492
13. McGaha AL, Schmittling GT, DeVilbiss A, Graham R. Entry of US medical school graduates into family medicine residencies: 2008-2009 and three-year summary. Fam Med 2009; 41(8): 555-66.
14. Hays R, Strasser R, Wallace G. Developing a general practice workforce for the future. Aust J Gen Pract 2018; 47(8): 502-5.
    DOI: https://doi.org/10.31128/AJGP-02-18-4487
15. Andrews A. Master of primary health care degree: Who wants it and why? J Prim Health Care 2016; 8(2): 106-14.
    DOI: https://doi.org/10.1071/HC15026
16. Khan UI. Evaluation of FamMed essentials: A blended-learning program for capacity building of general practitioners in Pakistan. BMC Med Educ 2024; 24: 218.
    DOI: https://doi.org/10.1186/s12909-024-05069-y
17. Amin F, Sami F, Umer A. Workforce issues of general practice in a developing country, Pakistan. Aust J Gen Pract 2018; 47(9): 651-3.
    DOI: https://doi.org/10.31128/AJGP-02-18-4492
18. Baraku A, Pavleković G. Improving the quality of primary healthcare in Kosovo: Impact of targeted training of quality coordinators. Medicina Clínica Práctica 2024; 8(1): 100479.
    DOI: https://doi.org/10.1016/j.mcpsp.2024.100479
19. Vallée A. Blended learning compared to traditional learning in medical education: systematic review and meta-analysis. J Med Internet Res 2020; 22(8): e16504.
    DOI: https://doi.org/10.2196/16504
20. Thorpe S, Gardner L, Uravich MB. Online CME improves knowledge, competence, and confidence in the management of hepatitis B among primary care physicians. Open Forum Infect Dis 2025; 12(Suppl 1): ofae631.1173.
    DOI: https://doi.org/10.1093/ofid/ofae631.1173