Research Article

Perceptions of Young Doctors Regarding Serving in Public Sector Primary Care Level Facilities in Rural Areas of Bahawalpur District

Shanawar Saeed*

Department of Community Medicine, Quaid-e-Azam Medical College, Bahawalpur, Pakistan.

Abstract: Background: Primary healthcare is essential for achieving social goals, and should be properly supported to promote health.

Objective: This study was performed to assess the understanding and factors of reluctance among young doctors regarding serving in public sector primary care level facilities (BHUs, RHCs & local dispensaries) situated in rural areas of Bahawalpur district, South Punjab, Pakistan.

Materials and Methods: This cross-sectional study was accomplished at BHUs, RHCs, and local dispensaries in Bahawalpur, Pakistan, from 15th September 2024 to 30th March 2025 (IRB approval No. 2651/DME/QAMC/Bahawalpur). A total of 164 doctors of both genders, aged between 25 to 35 years with MBBS, BDS, or higher degrees and working at BHUs, RHCs, or local dispensaries in Bahawalpur district were included. Along with demographic features and other necessary information, perceptions and related factors of doctors working at rural health facilities were assessed.

Result: The study involved 164 doctors (68.9% male, 31.1% female) with a mean age of 30.55±3.28 years. Residential conditions were poor for 101 (61.6%). Facility structures were old but renovated for 83 (50.6%), with 96 (58.5%) reporting poor equipment and electricity. Auxiliary staff had no training in 83 (50.6%). Local cultural challenges affected 53 (32.3%), and 61 (37.2%) faced gender-based issues. Recreational facilities were reported by 23 (14.0%), with 117 (71.3%) feeling government incentives were insufficient. There were delays in post-graduation for 135 (82.3%) and a lack of skill development for 143 (87.2%).

Conclusion: This study highlighted the challenges faced by healthcare professionals in rural settings, such as poor living conditions, inadequate infrastructure, and insufficient professional development opportunities.

Keywords: Perception of work, Young doctors, Rural health facilities, Environmental challenges, Travel difficulties, Cultural hurdles.

INTRODUCTION

Health is a fundamental right of every human being, which should be of appropriate quality, affordable, acceptable, and timely available to all according to the World Health Organization (WHO) constitution. For a healthy nation, health systems need strengthening, which would ensure universal health coverage as envisaged by the Sustainable Development Goals (SDGs) to be achieved by 2030. Countries all over the world are facing a growing shortage of health workers. According to WHO, shortage of an estimated 10 million healthcare workers is expected by the year 2030, and developing countries are expected to fact the major burden. Governments in both low- and high-income countries face challenges in attracting and retaining healthcare providers in underprivileged areas, despite offering various incentives. Key issues include inadequate compensation, limited professional development opportunities, poor working conditions, social and environmental challenges, high workload and burnout, and a lack of recognition and career growth [1-9].

Literature on health care acknowledges that the primary healthcare (PHC) is essential for achieving social goals, and basic health units (BHUs) should be properly supported, engaging patients, and promoting health through all means. On urban and rural grounds, the most pressing issues are the maldistribution of the health workforce, especially of doctors, their retention issues, and low work-place satisfaction levels. Doctors' willingness to stay and serve rural areas when previously studied in Abbottabad (Khyber Pakhtoonkhwa province) showed that only 64% doctors were willing to work in those areas, while 38% showed reluctance to stay in remote areas due to poor living conditions, 9% due to no professional growth, 15% due to poor earning, and 4% because of poor infrastructure [10-14].

In District Bahawalpur, there are a large number of BHUs, (rural health center) RHCs, (maternal and child health) MCH centers, and a few local dispensaries. It is imagined that similar issues might be impacting the healthcare professionals of our region as well but no documented evidence exists. Evaluating the perception of young doctors regarding their working experience, strategies can be designed to address the underlying issues behind possible reluctance of working in the underprivileged areas. Keeping in view the situation, this study was designed to assess the perception of young doctors regarding serving in public sector primary care level facilities (BHUs, RHCs, and local dispensaries) situated in rural areas of Bahawalpur District, South Punjab, Pakistan.

MATERIALS AND METHODS

This cross-sectional study was accomplished at BHUs, RHCs, and local dispensaries lying under the control of the District Health Authority of Bahawalpur, Pakistan, from 15th September

* Address correspondence to this author at the Department of Community Medicine, Quaid-e-Azam Medical College, Bahawalpur, Pakistan.
Email: dr_shanawar@hotmail.com

2024 to 30th March 2025. The study was carried out after the approval from the Institutional Ethical Committee of the Quaid-e-Azam Medical College (letter number: 2651/DME/QAMC Bahawalpur). A sample size of 164 was calculated considering the estimated poor infrastructure of health facilities among 4% of outlets taking the margin of error at 3% [14]. We used a non-probability, purposive sampling technique to select the sample. The inclusion criteria were doctors of both genders, aged between 25-35 years with MBBS, BDS, or higher degrees, and working at BHUs, RHCs, or local dispensaries in Bahawalpur district. The exclusion criteria were doctors with less than two years of experience. Informed and written consents were obtained from all of the study participants.

Potential participants were approached by the researcher himself with the help of a detailed map of health facilities to reach their posting places. Demographic features such as age, gender, and marital status were noted. Work related information including place of posting, duration of working experience, type of conveyance used, distance from the main highway, and availability of resources at rural centers, were gathered. Information related to transport, travel difficulties, and residential hurdles that young doctors had to face, promotion chances, post-graduation opportunities, and professional skill development chances, insufficiency of financial, social, and family benefits, local customs or cultural hurdles at primary health care facilities, were also gathered. All of the relevant information were collected on a specifically pre-designed proforma.

STATISTICAL EVALUATION

The data were analyzed using "IBM-SPSS Statistics" version 26.0. The quantitative variables, like age, were expressed by computing the mean and standard deviation (SD). For the qualitative variables, frequency and percentages were shown. Chi-square test was employed to compare variation in gender distribution with respect to various study variables, considering $p<0.05$ as significant.

RESULT

The study revealed that the strength of male doctors was 113 (68.9%) as compared to female doctors, who were only 51 (31.1%). The mean age was 30.55±3.28 years. The marital status of 120 (73.2%) was noted as unmarried, and 44 (26.8%) of them were married. The duration of their job to work in these rural areas for 109 (66.5%) doctors was less than 5 years, while for 55 (33.5%) of them, it was more than 5 years. Characteristics of study participants are shown in Table **1**.

Table 1. Characteristics of the Participants (n=164).

Characteristics		Frequency (%)
Gender	Male	113 (68.9%)
	Female	51 (31.1%)
Age groups	<25 years	20 (12.2%)
	26-35 years	138 (84.1%)
	>35 years	6 (3.6%)
Marital status	Married	44 (26.8%)
	Unmarried	120 (73.2%)
Duration of working	<5 year	109 (66.5%)
	≥5 years	55 (33.5%)

It was noted that 73 (44.5%) doctors had less than 50 km distance to their health facility. Transportation-wise, 131 (79.9%) relied on their own conveyance. Residential conditions evaluation revealed that 101 (61.6%) were living in facilities described as being in very poor condition. Health facilities included 80 (48.8%) in BHUs, 71 (43.3%) in RHCs, and 13 (7.9%) in local dispensaries. Facility structures analysis showed that 83 (50.6%) were old but renovated. Procedure rooms include 83 (50.6%) as small with limited sitting capacity. Equipment and electricity conditions showed that 96 (58.5%) had poor and non-working equipments. Regarding auxiliary staff, 83 (50.6%) had staff that never received training. Local and cultural constraints analysis revealed that 53 (32.3%) faced challenged regarding rural customs. Gender-based issues were reported by 61 (37.2%) young doctors experiencing gender-based issues. There were 38 (23.2%) respondents who encountered political influence.

A significant gender disparity existed in the distance from health facilities, with a higher percentage of females (64.7%) traveling less than 50 km compared to males (35.4%) ($p<0.001$). Types of conveyance also showed significant differences; 29.4% of females used public transport compared to 11.5% of males ($p=0.008$). No significant association of gender were found with residential facility conditions also vary significantly by gender, with 61.6% of males living in very poor conditions versus 39.2% of females ($p=0.001$). Type of health facilities ($p=0.936$), structure of health facilities ($p=0.257$), procedure rooms condition ($p=0.527$), equipment and electricity generators ($p=0.612$), auxiliary staff by experience and training ($p=0.276$), local and cultural constraints ($p=0.254$), or gender-based constraints ($p=0.254$), and the details are shown in Table **2**.

Table 2. Association of Transportation and Housing, Health facility Detail, Auxiliary Staff and Location Constraints with Gender and Age.

Characteristics			Total	Male	Female	P-value
Transportation and housing	Distance from health facility (km)	<50	73 (44.5%)	40 (35.4%)	33 (64.7%)	<0.001
		≥50	91 (55.5%)	73 (64.6%)	18 (35.3%)	
	Types of conveyance used by doctors	Public transport	28 (17.1%)	13 (11.5%)	15 (29.4%)	0.008
		Own conveyance	131 (79.9%)	95 (84.1%)	36 (70.6%)	
		Any other	5 (3.0%)	5 (4.4%)	-	
	Residential facility	Newly constructed	24 (14.6%)	12 (10.6%)	12 (23.5%)	0.001
		Renovated	19 (11.6%)	9 (8.0%)	10 (19.6%)	
		Old never renovated	20 (12.2%)	11 (9.7%)	9 (17.6%)	
		Very poor condition	101 (61.6%)	81 (71.7%)	20 (39.2%)	
Health facility details	Name of health facility	BHU	80 (48.8%)	55 (48.7%)	25(49.0%)	0.936
		RHC	71 (43.3%)	50 (44.2%)	21 (41.2%)	
		Local dispensary	13 (7.9%)	8 (7.1%)	5 (9.8%)	
	Structure of health facility	New with enough sitting capacity	6 (3.7%)	4 (3.5%)	2 (3.9%)	0.257
		Old but renovated	83 (50.6%)	63 (55.8%)	20 (39.2%)	
		Very old and no renovation	73 (44.5%)	45 (39.8%)	28 (54.9%)	
		Poor and deficient sitting capacity	2 (1.2%)	1 (0.9%)	1 (2.0%)	
	Procedure rooms	Ventilated with sufficient light	5 (3.0%)	3 (2.7%)	2 (3.9%)	0.527
		Good hygienic condition	67 (40.9%)	50 (44.2%)	17 (33.3%)	
		Small with limited sitting capacity	83 (50.6%)	55 (48.7%)	28 (54.9%)	
		Very poor sitting and hygienic condition	9 (5.5%)	5 (4.4%)	4 (7.8%)	
	Equipment and electricity generators	New and working	6 (3.7%)	4 (3.5%)	2 (3.9%)	0.612
		Very old but working	45 (27.4%)	28 (24.8%)	17 (33.3%)	
		Poor and not working	96 (58.5%)	70 (61.9%)	26 (51.0%)	
		Not available	17 (10.4%)	11 (9.7%)	6 (11.8%)	
Auxiliary staff and local constraints	Qualified auxiliary staff	Experienced and properly trained	11 (6.7%)	7 (6.2%)	4 (7.8%)	0.276
		No experience	57 (34.8%)	35 (31.0%)	22 (43.1%)	
		No training ever received	83 (50.6%)	63 (55.8%)	20 (39.2%)	
		Not available	13 (7.9%)	8 (7.1%)	5 (9.8%)	
	Local and cultural constraints	Rural customs	53 (32.3%)	32 (28.3%)	21 (41.2%)	0.254
		Gender based	61 (37.2%)	45 (39.8%)	16 (31.4%)	
		Poor road	12 (7.3%)	7 (6.2%)	5 (9.8%)	
		Political influence	38 (23.2%)	29 (25.7%)	9 (17.6%)	

There were 23 (14.0%) participants who reported the availability of recreational facilities, such as children's parks and grocery markets, at their health facility. Eleven (6.7%) young doctors noted that standard schooling for children was provided near their area of residence. A substantial majority, 117 (71.3%) felt that government incentives were insufficient relative to the challenges faced in rural postings. About 71 (43.3%) doctors indicated that there was a chance of practice in the appointed rural area. There were 143 (87.2%) participants who stated a lack of skill development exposure compared to tertiary care hospitals. There were 135 (82.3%) respondents who reported delays in post-graduation. There were 125 (76.2%) young doctors who reported a lack of interaction with other healthcare professionals. Only 5 (3.0%) doctors had access to teaching sessions for professional development. Fig. (**1**) is portraying details about the contextual and developmental factors shaping young doctors experiences in rural health settings.

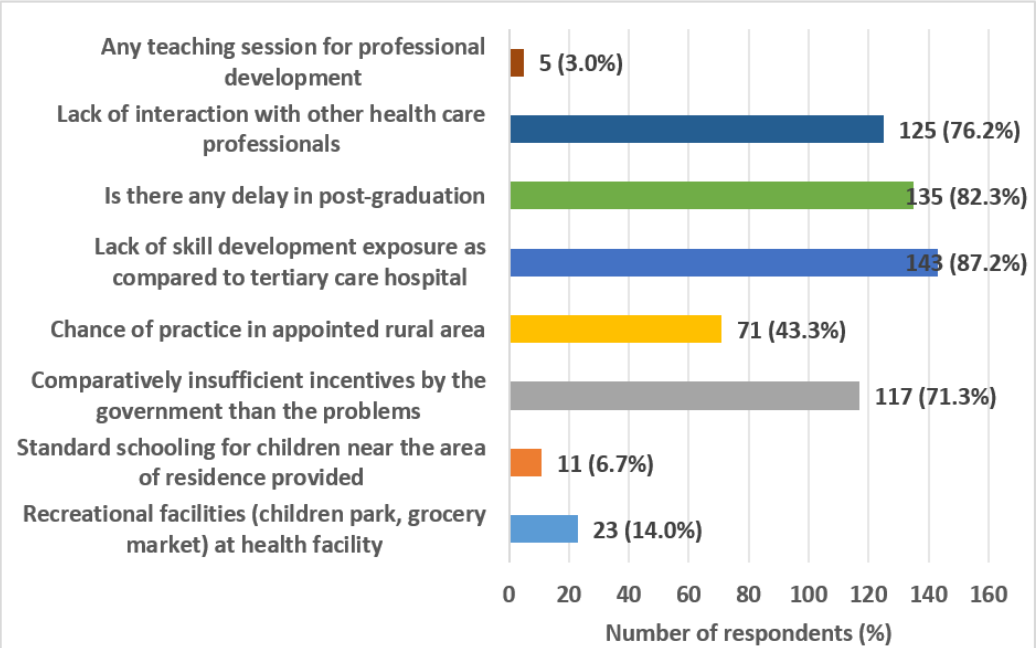

Fig. (1). Contextual and Developmental Factors Shaping Young Doctors Experiences in Rural Health Settings.

DISCUSSION

Our study found a notable gender disparity among doctors working in rural settings, with 68.9% being male and 31.1% female. Rana SA, *et al.* [15]. mentioned 50.0% male and 50.0% female ratio in their study, which is contrary to our study findings. O'Sulivans *et al.* [16] analyzing healthcare professionals working in the rural areas of Australia described the male and female ratios as 65.0% and 35.0%, respectively, which is very close to what we noted. The gender imbalance is consistent with findings from Farooq *et al.* [14] who also reported a higher prevalence of male doctors in rural settings. The mean age of participants was 30.55±3.28 years, indicating a relatively young workforce. These findings are aligned to the mean age of 33 years reported by Farooq *et al.* [14]. This younger demographic is crucial as it often reflects a phase of career development where professional stability and career growth are significant considerations. The marital status of doctors in our study showed that 73.2% were unmarried. The prevalence of unmarried doctors could be indicative of their greater mobility or willingness to accept challenging assignments, possibly due to fewer personal commitments. Research done by Arshad *et al.* [17] on medical students of Lahore Medical & Dental College, Lahore, resulted in accordance with our research work, as 94.9% of doctors were single, whereas only 5.1% were married. Sinha from India revealed that rural background and primary schooling were associated with a higher willingness to work in rural areas, suggesting that personal background might play a role in professional preferences. The duration of service in rural areas revealed that 66.5% of doctors had worked there for less than 5 years. This finding highlights a relatively high turnover rate, which aligns with the concerns raised by Sinha regarding reluctance due to limited professional growth. The brief tenure could be linked to dissatisfaction with working conditions, a factor highlighted by Girasek *et al.* [19]. The literature reports that young doctors prefer urban settings with better professional opportunities and amenities [18-21].

Transportation was largely reliant on personal conveyance (79.9%), and residential conditions were frequently reported as very poor (61.6%). This reflects significant logistical and living challenges faced by doctors, echoing findings from Rahman *et al.* from Bangladesh, who identified financial and infrastructural barriers as critical issues in rural settings [22]. The poor residential conditions and inadequate infrastructure reported in our study are consistent with Vinu *et al.* [17] who also noted that limited amenities significantly affect doctors' willingness to serve in rural areas.

Regarding the condition of health facilities, 50.6% of the doctors worked in old but renovated buildings, with 58.5% reporting poor equipment and non-working conditions. These findings resonate with Girasek *et al.* [19] who highlighted inadequate infrastructure and facilities as deterrents for doctors considering rural assignments. The poor condition of equipment and facilities in our study mirrors the challenges reported by Hasani *et al.* [23] where inadequate resources and unclear guidelines were significant barriers in primary healthcare settings.

The study found that 50.6% of the facilities had staff who never received training. This lack of training is a significant concern, as it impacts the quality of care and overall functioning of healthcare facilities. This is supported by Mukhinindi and Ross [24], who discussed the critical need for proper training and professional development to improve the efficacy of healthcare services. The lack of skill development opportunities for doctors in our study aligns with Farooq *et al.* [14] findings on the limited professional growth prospects in rural settings. A similar cross-sectional study by O'Sullivan *et al.* [16] mentioned that 567 specialists had undertaken rural outreach services only for the sake of growing their practice. Similar results were found in a study from China [25] as well. Local and cultural constraints were faced by 32.3% of doctors, and gender-based issues affected 37.2%. These challenges reflect broader socio-cultural dynamics impacting healthcare delivery in rural areas. Sinha in his study similarly noted cultural and local constraints as significant factors influencing doctors' willingness to work in rural settings. Understanding these constraints is crucial for developing targeted interventions to improve rural healthcare delivery.

A substantial majority (71.3%) felt that government incentives were insufficient. This finding is consistent with Girasek *et al.* [19] who emphasized the need for better incentives and comprehensive human resource strategies to attract doctors to rural areas. Our study's results on the lack of professional development opportunities, with only 5% of doctors having access to teaching sessions, highlight a critical gap in ongoing education and career advancement, echoing concerns from Sinha [18], and Vinu *et al.* [26] about the impact of professional stagnation on rural healthcare careers. Mukhinindi and Ross [24] highlighted the positive perception of family medicine from other specialists, emphasizing the role of supportive structures and training in improving healthcare quality. This contrasts with our findings of inadequate training and poor facility conditions, suggesting that while there is recognition of the importance of rural healthcare, practical support and resources remain insufficient.

LIMITATIONS

This study has several limitations. The cross-sectional design captured data at a single point in time, limiting the ability to assess changes over time or establish causal relationships. The sample is limited to doctors in specific rural settings of Bahawalpur district, which may not be representative of all rural areas in Pakistan or other countries. Self-reported data may be subjected to bias, as doctors might underreport or overemphasize certain issues based on their personal perspectives. The study also did not explore the impact of specific policy interventions or support systems that could influence the doctors' experiences and perceptions. The reliance on quantitative measures may not fully capture the nuanced qualitative aspects of the challenges faced by doctors in these settings.

CONCLUSION

This study highlighted the challenges faced by healthcare professionals in rural settings, such as poor living conditions, inadequate infrastructure, and insufficient professional development opportunities. Efforts should focus on addressing infrastructure deficiencies, providing adequate incentives, and ensuring ongoing professional growth to attract and retain healthcare professionals in the rural areas.

ABBREVIATIONS

BHU: Basic health unit.

RHC: Rural health center.

SDG: Sustainable Development Goals.

WHO: World Health Organization

PHC: Primary healthcare.

MCH: Maternal and child health.

AUTHORS' CONTRIBUTION

The article is written by a single author.

ACKNOWLEDGEMENTS

The author wants to thank all the study participants who spared valuable time and shared valuable information.

ETHICAL DECLARATIONS

Data Availability

The data can be requested from the author upon a reasonable request.

Ethical approval

The permission was obtained from the Institutional Ethics Committee of the Quaid e Azam Medical College, Bahawalpur, with letter number 2651/DME/QAMC Bahawalpur, dated: 21-09-2024.

Consent to Participate

Informed consented.

Consent for Publication

Consented.

Conflict of Interest

Declared none.

Competing Interest/Funding

Declared none.

Use of AI-Assisted Technologies

The authors declare that no generative artificial intelligence (AI) or AI-assisted technologies were utilized in the writing of this manuscript, in the creation of images/graphics/tables/captions, or in any other aspect of its preparation.

REFERENCES

[1] WHO. Human Rights. 2023; Available at: https://www.who.int/news-room/fact-sheets/detail/human-rights-and-health

[2] Nampewo Z, Mike JH, Wolff J. Respecting, protecting and fulfilling the human right to health. Int J Equity Health 2022; 21(1): 36.

[3] Kieny MP, Bekedam H, Dovlo D, Fitzgerald J, Habicht J, Harrison G, *et al.* Strengthening health systems for universal health coverage and sustainable development. Bull World Health Organ 2017; 95(7): 537-9. doi: 10.2471/BLT.16.187476.

[4] Boniol M, Kunjumen T, Nair TS, Siyam A, Campbell J, Diallo K. The global health workforce stock and distribution in 2020 and 2030: A threat to equity and 'universal' health coverage? BMJ Glob Health 2022; 7(6): e009316. doi: 10.1136/bmjgh-2022-009316

[5] WHO. Health Workforce. 2025; Available at: https://www.who.int/health-topics/health-workforce#tab=tab_1

[6] Khalil M, Alameddine M. Recruitment and retention strategies, policies, and their barriers: A narrative review in the Eastern Mediterranean Region. Health Sci Rep 2020; 3(4): e192. doi: 10.1002/hsr2.192

[7] Zhenjing G, Chupradit S, Ku KY, Nassani AA, Haffar M. Impact of employees' workplace environment on employees' performance: A multi-mediation model. Front Public Health 2022; 10: 890400. doi: 10.3389/fpubh.2022.890400

[8] Razai MS, Kooner P, Majeed A. Strategies and interventions to improve healthcare professionals' well-being and reduce burnout. J Prim Care Commun Health 2023; 14: 21501319231178641. doi: 10.1177/21501319231178641

[9] Phelan H, Yates V, Lillie E. Challenges in healthcare delivery in low-and middle-income countries. Anaesth Intensive Care Med 2022; 23(8): 501-4.

[10] van Weel C, Kidd MR. Why strengthening primary health care is essential to achieving universal health coverage. CMAJ 2018; 190(15): E463-E6. doi: 10.1503/cmaj.170784

[11] Ali A, Panezai S. Assessing the quality of primary health care services at basic health units in quetta city, Balochistan, Pakistan. Public Health Res 2021; 11(1): 111-2.

[12] Human Resource for Health. National Health vision Pakistan 2016-2025. Available at: https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/pakistan/national_health_vision_2016-25_30-08-2016.pdf

[13] Franco CM, Lima JG, Giovanella L. Primary healthcare in rural areas: access, organization, and health workforce in an integrative literature review. Cadernos de Saúde Pública 2021; 37: e00310520.

[14] Farooq U, Ghaffar A, Narru IA, Khan D, Irshad R. Doctors perception about staying in or leaving rural health facilities in District Abbottabad. J Ayub Med Coll Abbottabad 2004; 16(2): 64-9.

[15] Rana SA, Sarfraz M, Kamran I, Jadoon H. Preferences of doctors for working in Rural Islamabad Capital Territory, Pakistan: A Qualitative Study. J Ayub Med Coll Abbotabad 2016; 28(3): 591-6.

[16] O'Sullivan BG, McGrail MR, Stoelwinder JU. Reasons why specialist doctors undertake rural outreach services: An Australian cross-sectional study. Hum Resour Health 2017; 15(1): 3. doi:10.1186/s12960-016-0174-z

[17] Arshad M, Arif MA, Riaz S, Naz K, Haseeb M, Nazir M, *et al.* Medical students 'preference for working in rural areas after graduation: Results of a cross-sectional study. Pak J Med Health Sci 2017; 11(3): 1032-7.

[18] Sinha RK. Perception of young doctors towards service to rural population in Bihar. J Indian Med Assoc 2012; 110(8): 530-4.

[19] Girasek E, Eke E, Szócska M. Analysis of a survey on young doctors' willingness to work in rural Hungary. Hum Resour Health 2010; 8: 13. doi: 10.1186/1478-4491-8-13

[20] Bashar F, Islam R, Khan SM, Hossain S, Sikder AA, Yusuf SS, *et al.* Making doctors stay: Rethinking doctor retention policy in a contracted-out primary healthcare setting in urban Bangladesh. Plos One 2022; 17(1): e0262358.

[21] Kumar S, Clancy B. Retention of physicians and surgeons in rural areas - what works?. J Public Health 2021; 43(4): e689-700.

[22] Rahman QM, Sikder MT, Talha MTUS, Banik R, Pranta MUR. Perception regarding health and barriers to seeking healthcare services among rural rickshaw pullers in Bangladesh: A qualitative exploration. Heliyon 2022; 8(10): e11152. doi: 10.1016/j.heliyon.2022.e11152

[23] Al Hasani S, Al Ghafri TS, AlHarthi AS, Gibson E, Al Harthi MS. Perceptions of primary care providers on public health services in primary care in Oman: A qualitative study. Cureus 2023; 15(7): e42208. doi: 10.7759/cureus.42208

[24] Mukhinindi R, Ross AJ. Perceptions of specialists in the public

sector, on the role and value of family medicine. S Afr Fam Pract (2004) 2022; 64(1): e1-e7. doi: 10.4102/safp.v64i1.5628

[25] Qing Y, Hu G, Chen Q, Peng H, Li K, Wei J, *et al.* Factors that influence the choice to work in rural township health centers among 4,669 clinical medical students from five medical universities in Guangxi, China. J Educ Eval Health Prof 2015; 12(40): 1-8. doi:10.3352/jeehp.2015.12.40

[26] Vinu E, Kumar N, Huchchannavar R, Pai DV, Kini SB, Velayudhan A, *et al.* Perceptions and attitudes of medical interns towards rural service after internship: A cross-sectional study from a private medical college in coastal Karnataka. J Pharm Negative Result 2022; 13(9): 5443-50. doi: 10.47750/pnr.2022.13.S09.665

Received: May 09, 2025 Revised: June 05, 2025 Accepted: June 10, 2025