Original Article

RELUCTANCE TO SERVE IN RURAL AREAS: DOCTORS' PERSPECTIVE

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Abstract

Background: Pakistan's health care system has been adversely affected by the non-availability of doctors in its rural and remote areas. It is the high time to realize that the improvement in the standard of health care services can be achieved with willingness and dedication of doctors to work in these areas which is only possible by providing them with suitable working environment.

Methods: This was a descriptive cross-sectional study conducted on 200 doctors working in public and private hospitals/clinics of Islamabad, Pakistan. Data was collected through a questionnaire and processed in SPSS software version 16.

Results: 200 doctors comprising of 113 males and 87 females were recruited for the study. The mean age was 30 years (0.65 SD). Majority (86.5 %) of the doctors were of the view; that indeed it was the non-availability of doctors at rural health care centres for poor health services in such areas. 83.9 % agreed that basic facilities were lacking in rural areas. Regarding transportation, 74.5 % had the opinion that these facilities were inadequate in rural areas. Nevertheless, 84.5 % agreed that by improving the basic facilities of life, working conditions could be improved. However, 72.5 % supported the idea of extra hard area grant to improve doctors' motivation towards serving rural areas.

Conclusion: Doctors were reluctant to serve in rural areas because of the difficulties affecting their social, professional and family life. By developing the infra-structure of health centres and by providing some special incentives to the serving doctors, this issue can be resolved to a considerable extent.

Keywords: Rural areas, health care centres, basic facilities.

Introduction

Pakistan is a rapidly growing country with a population of 185 million (2015), of which 61% is rural and 39% constitutes the urban population (1). By far, the rural areas of Pakistan have remained deprived of major health reforms and services. Rural Health Centres (RHC), Basic Health Units (BHU) and rural dispensaries set up by the provincial and district governments face shortage of doctors. WHO recommends a physician to population ratio of 23: 10,000, but unfortunately this ratio is 7.8: 10,000 in Pakistan. This ratio, if further split shows an urban ratio of 14.5 physicians /10,000 population and a rural ratio of 3.6 physicians/10,000 population (2). Health Facility Assessment-Pakistan National Report, published in 2012, revealed deficiency and lack of maintenance of essential equipment at the rural medical centres (3). Majority of the health facilities are lacking in trained staff, operational delivery rooms and operational kits. Doctors travel long distances via poor road networks to reach such remote medical facilities. And lately, growing violence against healthcare workers has

further decreased the willingness of doctors, especially female doctors and health care workers to serve at remote areas of Pakistan (4). Other factors which hinder the relocation of doctors to rural areas include lack of good quality schooling for their children and restricted spousal employment opportunities, creating frustration and disturbed family lives (5). Postings of doctors at these poorly operational facilities at the initial stages of their career make them demoralised (6), while doctors hailing from urban backgrounds find it difficult to adjust in rural conditions (7). Because of all these demotivating factors, many young doctors end up leaving Pakistan for post-graduation and decent quality of life, which is leading to a severe brain drain in an already resource poor country (8,9).

The purpose of this study was to investigate the mind frame of young doctors, so that will it be worthwhile to put forward their concerns to the ministry of Health and will the ministry take strategic steps and invest in this sector to achieve a long-term solution to this reluctance of young Pakistani doctors to serve in their very own

country's rural areas?

Methodology

A descriptive cross-sectional study was conducted on doctors working in public and private sector hospitals and clinics of Islamabad from January 2017 to April 2017. Study participants were selected through convenient non-probability sampling technique. Inclusion criteria was MBBS graduates with no post graduate qualification whereas postgraduate doctors were excluded as being the specialist of their fields, they don't need to join Basic Health Unit, and Rural Health Centre. Total sample size was 200 calculated by using Creative Research System Survey Software by using estimated MBBS graduate doctors per total population of Islamabad at confidence level of 95% and confidence interval of 5%. Out of the total, response rate was 93%. Approval for the study was taken by the ethical committee of Islamabad Medical and Dental College (IMDC). Data was collected through a self-administered questionnaire tested and validated by pilot testing on 5% sample population of young doctors of Pakistan Institute of Medical science Islamabad (PIMS). Respondents were informed about the purpose of study at the time of distribution of questionnaire. Five points Likert Scale was used to get a comprehensive response of the doctors, which was converted into three after simple mathematical calculations. Results and finding were interpreted based on frequency and percentages of the respondents. Descriptive and inferential Analysis of data was done through Statistical Package for Social Sciences (SPSS V. 16).

Results

Out of the 200 study participants, 113 were male and 87

were female with mean age of 30 years $\pm$ 0.65 (range 24-52). 159 had an urban background, while 41 belonged to rural areas. The results were interpreted in terms of percentage of the total participants.

Table-1: Demographic Distribution (N= 200)

Gender	Urban	Rural	Total
Male	82	31	113
Female	77	10	87
Total	159	41	200

Figure: 1 Lack of Availability of Doctors, a Contributing Factor towards Poor Health Services in Rural Areas. (N=200)

Table: 2. Barriers to service of doctors in rural areas.

S./ No	Items	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
		No	%	No	%	No	%	No	%	No	%
1	Lack of availability of doctors is contributing factor towards poor health services in rural areas	88	44.0	85	42.5	13	6.5	14	7.0	-	-
2	Basic life facilities are unsatisfactory.	73	36.5	95	47.5	23	11.6	7	3.5	2	1.0
3	Facilities of accommodation are limited.	54	27.0	93	46.5	29	14.5	18	9.0	6	3.0
4	Lack of transport facilities is hurdle in doctors movement	43	21.5	106	53.0	29	14.5	20	10.0	2	1.0
5	Training of medical students in our set up is urban based	63	31.5	76	38.0	41	20.5	18	9.0	2	1.0
6	Students unaware of rural social, economic, cultural, and environmental conditions	26	13.0	79	39.5	45.0	22.5	41	20.5	9	4.5

7	Urban based trained doctors not welcomed in rural areas due to linguistic barriers and high technology learning	22	11.0	55	27.5	62	31.0	52	26.0	9	4.5
8	security fears make the survival difficult for doctors	38	19.0	84	42.0	41	20.5	26	13.0	11	5.5
9	Professional growth is limited.	41	20.5	85	42.5	45	22.5	22	11.0	7	3.5
10	Opportunities of private practices are limited.	29	14.5	75	37.5	51	25.5	37	18.5	8	4
11	post-graduation by the doctors is delayed	42	21.0	90	45.0	41	20.5	23	11.5	4	2
12	Children education facilities and spouse job opportunities are limited	65	32.5	88	44.0	32	16.0	12	6.0	3	1.5

The above table shows that most of the participants (84%) agreed that basic facilities were lacking in rural areas. 73.5% were of the view that accommodation facilities in these areas are limited. Regarding transportation, 74.5% had the opinion that these facilities are inadequate in rural areas. 76.5% doctors supported the view that they encountered difficulties due to limited education facilities for children and job opportunities for spouse. While 66% believed that posting in rural areas creates delay in post-graduation.

Table: 2. Facilitators of working of doctors in rural areas

S/ No	Items	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
		No	%	No	%	No	%	No	%	No	%
13	By providing basic facilities of life working conditions can be improved	47	23.5	122	61.0	19	9.5	9	4.5	3	1.5
14	Improved infra -structure can help in retention of doctors in rural areas.	43	21.5	102	51.0	39	19.5	13	6.5	3	1.5
15	By using modern communication system sense of responsibility may be invoked in villagers	43	21.5	91	45.5	46	23.0	16	8.0	4	2.0
16	Extra hard area allowance may be granted.	59	29.5	86	43.0	36	18.0	11	5.5	8	4
17	Doctors may be exposed to rural conditions by frequent training session	63	31.5	82	41.0	33	16.5	20	10	2	1
18	Priority for residency may be given with two years working experience in rural areas	65	32.5	71	35.5	33	16.5	21	10.5	10	5

The above table shows that out of 200 doctors, majority (84.5 %) agreed that by providing basic facilities of life working conditions can be improved. Those in the favour that by improving the infrastructure of health centres and residences doctors' movement towards rural areas can be improved were 74.5%. While, 72.5 % participants supported the idea that extra hard area allowance should be granted to those serving in rural areas. Regarding doctor's exposure to rural conditions by frequent training session; 72.5 % voted in favour of this proposal.

Table 3. Principal Component Analysis of factors

Factors	Items	Description	% of variation explained
Factor 1	14, 13, 15, 17	Need of Improvement in basic needs, infra - structure, modern communication and training of doctors	13.32%
Factor 2	10, 8, 12	Problems faced due to limited practice, linguistic barrier and security problems	24.85%
Factor 3	11, 9, 5	Personal loss of doctor's due to delayed post-graduation, limited professional growth and family issues	35.01%
Factor 4	2, 16, 18	Providence of personal favour to doctors by extra allowance and priority for residency	44.56%
Factor 5	6, 7	Problems for medical students due to urban based training and unawareness of rural conditions	54.01%
Factor 6	1, 4, 3	Lack of availability of doctors at health centres with poor transport and accommodation facilities	61.55%

The above table shows the cumulative percentage of various items explained by extracted factors. There is nearly 62% of variability in the original 18 variables so complexity of the data can be reduced considerably by using these components, with only 38% loss of data.

Discussion

The main purpose of this study was to highlight the various factors behind the lack of adequate health services in rural areas alongside suggesting remedial measures to help improve the prevailing situation in the remote areas of Pakistan. Evidence from India disclosed that more than 80% of the 25,300 primary health centres in the country were without a doctor, 38% were without a laboratory technician, and 22% had no pharmacist. Even in health facilities where the staff had been posted; their availability remained in question because of high rates of absenteeism (7). According to another study in India, 70% of population has no access to specialists, as 80 % of specialists live in urban areas (6).

There is strong evidence from a systemic review (10) conducted by Willis-Shattuck to suggest that well maintained basic infrastructure at rural health centres is essential for their proper functioning and retaining health work force (11) and the results of the present study showed that more than 50% of participants had the same opinion. Cabral's study in rural Timor - Leste revealed a similar situation, where the government intended to employ three doctors in each health unit but due to

meagre facilities, the doctors were not willing to serve in those areas (12). A small, but statistically significant study conducted in Abbottabad, Pakistan, revealed the disappointing situation (figure: 2), regarding the availability of utilities at rural health centres in Abbottabad (13) . Bangladesh also reported of similar situation in its rural areas, such as poor living conditions, unsafe drinking water, insufficient equipment, security fears, limited opportunities for private practice, minimal career development and non-provision of hardship area allowances (14).

Figure:2 Availability of Utilities at Rural Health Care Facilities District Abbottabad 13

Grant of rural non-practicing extra hardship allowances and priorities for residency in post graduate institutions should be provided to doctors coming particularly from rural/disadvantaged background to increase their influx and thus ensuring their retention (15). In India, the strategy of retaining physicians (whether from urban or rural background) to serve in rural areas for few years in exchange for specialist seats reservation has been quite successful (5). Thailand has made it compulsory for their physicians to work in rural areas for the initial three years of their careers and failure to abide by this rule results in heavy fines imposed on doctors (16). In Australia and South Africa financial incentives are provided to attract doctors to serve in the suburbs (17,18), whereas in France rural focused health strategies have been developed including an even distribution between urban and rural areas, providing incentives in form of subsidies, construction of health facilities with advanced equipment, ambulances, vehicles, electricity and water supply to target the existing gaps to retain health practitioners in these areas (19,20).

The present study indicates that the training of medical students is urban based with little or no rural exposure. A study from a Canadian medical college demonstrated; that by attending a rural medical school ($p < .0001$) and having rural exposure during medical studies and residency training ($p=.0068$), there were significant chances of physicians practising in rural locations (21). Germany introduced an elective course in 2014 for medical undergraduates to get familiarized with the rural community setup and the specific health issues in such areas (22). Effective communication between doctors and patients is essential for quality health care services (23). Residency programs designed to teach clinical, social, inter personal and management skills needed for successful rural practice are essential for future health practitioners. The rural communities can also play their role by welcoming the doctors and appreciate and support the doctors in every possible manner. As evidence proves that 'sense of achievement', 'recognition' and 'relation to the community' are strong motivating factors from the perspective of health professionals (24).

In the recent years, WHO has launched a program for "Increasing access to health workers in rural and remote areas through improved retention of health workers in rural areas" (25). WHO has provided guidelines assisting the governments in developing policies associated with improving the quality and duration of training sessions in rural areas (26). It is the state responsibility to strengthen the infra-structure of health care centres equipped with machinery, drugs and instruments so that the doctors get the opportunities to perform their curative and preventive responsibilities (27). Many countries are trying to train and mobilize nurses, midwives and paramedic staff to overcome the challenges faced in rural areas due to shortage of doctors. Advantages of appointing such a staff are that they are willing to work on lower salaries as

compared to doctors and can provide basic health care to rural communities, which is the foremost issue at these areas (5).

Conclusion

The health sector of Pakistan has long been neglected. There are limited social, professional and financial prospects for doctors working in rural health facilities. Appointing doctors at rural areas on contractual basis rather than permanent basis with higher remuneration than the market will be a strong motivational and retention factor in Pakistan. A multi-disciplinary approach aiming to achieve a rural work friendly environment consisting of well-paid doctors who are also in touch with the main stream health industry through continuous professional development is the need of hour in Pakistan. As eventually all these measures will not only help in improving the health of rural Pakistanis, but also decrease the load on tertiary care hospitals due to unnecessary referrals for understaffed rural health centres.

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