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Location and vocation: why some government doctors stay on in rural Chhattisgarh, India

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ABSTRACT

We conducted a qualitative research study in Chhattisgarh State, India, to explore why some qualified medical practitioners decide to stay on in government rural service. The fieldwork consisted of in-depth interviews with 37 practitioners who had an established record of rural service, and data were analyzed using the 'framework' approach for applied policy research. Study participants cited complexes of reasons for staying on, including geographical and ethnic (tribal) affinities, rural upbringing, availability of schools, personal values of service, professional interests, co-location with spouses, and relations with co-workers. Extrinsic (environmental) and intrinsic (personal) factors both play a part in determining the decisions of doctors to stay on, and are interdependent. Some doctors were influenced to remain by the close relationships they had developed with local communities and their acclimatisation over time to rural life. The policy imperative of rural workforce adequacy may be served less by choosing one retention strategy over another than by developing multi-dimensional solutions focused simultaneously on identifying and incentivising rural practitioners with appropriate characteristics, and on creating external conditions for their improved performance and welfare. Further, in a low-income setting such as India, questions of rural workforce adequacy cannot be addressed in isolation, but need to be tackled as part of broad agenda of social development that include strengthening public service systems and empowering communities.

1. Introduction

1.1. Health workforce distribution: a global concern

Health systems across the world face a shortage of qualified health workers in rural and remote areas.[1–3] According to the WHO, approximately one half of the global population lives in rural areas, but these areas are served by fewer than a quarter of the total physician workforce.[4] Low- and middle-income (LMI) countries in Africa and Asia are particularly affected by workforce shortages.[2]

Health worker shortages in rural and remote areas directly affect the ability of country health systems to deliver services to populations living there. This not only contributes to socioeconomic inequities in health and service delivery but also prevents efforts to reduce these differences.[3,4] In many LMI countries, the absence of qualified health workers in rural areas has resulted in rural populations receiving poor quality and harmful services from unqualified providers.[5] Adequacy of the rural health

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workforce emerges as a pre-eminent concern for global health, and a key challenge for the achievement of the Millennium Development Goals.

1.2. Factors influencing workforce distribution

The problem of health workforce adequacy is operationally and conceptually complex. Policymakers have sought and tested varied solutions to the problem, and it is also the subject of diverse hypotheses and formulations by researchers. The strategic response to workforce asymmetries has ranged from regulating and enforcing rural postings to providing monetary and non-monetary incentives for rural providers, hiring doctors on contract, and shifting tasks to mid-level clinical cadres.[6–8]

A growing realisation, in the past decade, that command-and-control regulation is not the most effective way of enhancing rural retention[9] has led to an increasing demand for research on the issue of health workforce asymmetries. Research studies and reviews have been commissioned and conducted on the motivation of rural physicians, on their decisions to choose urban over rural service, and on the efficacy of varied strategies to promote rural retention.[4,8,10,11] 'Push' and 'pull' factors identified include the differential availability in cities and villages of a number of factors, including lifestyle amenities, employment opportunities for spouses, access to education services for children, professional, family and social ties, and opportunities to realise professional ambitions.[1,12]

Monetary and non-monetary incentives designed to compensate for some of the disadvantages of rural lifestyle have had qualified success as part of attraction and retention policies.[8,11] There is also a heightened understanding of the need to improve working and living conditions, training opportunities and support systems for practitioners working in rural areas.[13–15]

Most recently there has been a greater appreciation of heterogeneity in the workforce, and an understanding that practitioners with particular attributes, such as a rural upbringing or greater commitment and motivation, are more likely than others to choose to work in rural areas.[16] Chhea et al. and Serneels et al. have, separately, drawn attention to the distinction between the personal attributes of practitioners, i.e., intrinsic factors, and extrinsic or relational factors, such as environmental influences and institutional and market characteristics, that influence practitioner location.[17,18]

Broadly, identifying intrinsic factors tends to suggest solutions focused on selecting or targeting providers with particular attributes for rural service, whereas focusing on extrinsic factors highlights the need to reward or incentivise rural service, ameliorate poor working conditions and redress the lack of amenities.

Despite an increasing number of published studies looking at the problems of maintaining an adequate rural workforce, research in this area is still sparse and formative; important geographical settings remain unexplored (India being a key example), and the search continues for explanations of a finer grain and greater depth that will inform successful interventions. In this study, we explored rural doctors' reasons for staying on in villages, through a narrative approach that educes both personal (intrinsic) and relational (extrinsic) reasons for their decisions to remain in rural service.

2. Methods

A simple model (based on Porter et al.) was developed as a conceptual framework to plan the research instruments and for subsequent thematic analysis (Figure 1).[19] The framework is constructed of four overlapping domains, with the main subject of research – the health workers – at the centre. Using this framework, the reasons why practitioners 'stay on' are examined by studying their own personal characteristics, values and forebears (intrinsic factors), and also their respective interfaces with the health system, with communities, and with users of care (extrinsic factors).

The study was conducted in the state of Chhattisgarh in central India, using in-depth qualitative research methods. Chhattisgarh is one of the least urbanised states in the country with a large ethnic minority (32% of the population) of tribal or indigenous peoples. The state government has invested substantially in improving health infrastructure. Large parts of the state are under dense forest cover, and armed conflict between the state and extremist groups is posing additional challenges for the government in providing health services in these areas.

Essential criteria for the selection of practitioners as participants in the study were: a recognised medical qualification, and service in a rural area for more than 5 years or in a 'remote' (defined by an official government classification of health posts) rural area for more than 1 year. By referring to government records we identified all the doctors fulfilling the essential criteria in eight remote districts. Participants for the first round of interviews were identified from this list of eligible practitioners, using 'maximum variability' selection principles to allow for greater thematic breadth in the responses. This purposive selection approach focused on ensuring adequate representation of both male and female doctors, those trained in western and traditional medicine, both categories of employment (i.e.,

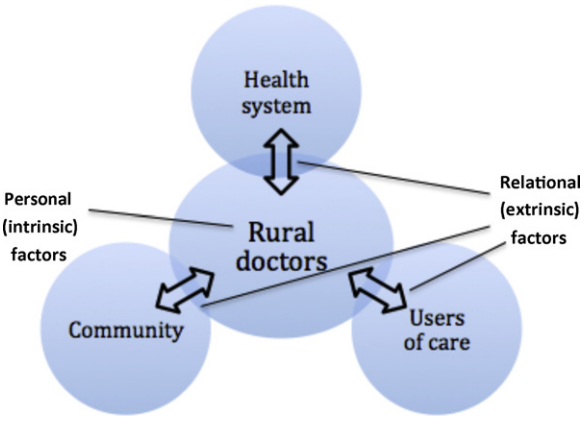

Figure 1. Conceptual framework used to plan the research instruments and data analysis.

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regular and contractual), and across different geographical locations within the state, which would not have been possible through random selection.[20]

Two teams of two researchers each conducted in-depth interviews with rural practitioners between July and September 2009. Following the first round of interviews in eight districts, a preliminary analysis and listing of emergent themes revealed that no new themes were being generated in the latter interviews. Following principles of data saturation, fieldwork was concluded at this point, with a total of 37 participants.

In-depth interviews with the participants were conducted in Hindi, and guided using topic guides (Box 1) and probes. All recordings were transcribed verbatim and then translated into English text by research assistants.

To organise the data from the interview transcripts we applied the 'framework' approach of qualitative analysis for applied policy research.[22] Underlying reasons for practitioners' decisions to join, and to stay on in, rural service were extracted from the narrative accounts, and classified thematically. Initially two researchers coded the data separately using the thematic framework; later, their analyses were compared and revisited to improve the reliability of interpretations from the data.[23] The thematically categorised findings were written up and are presented here.

2.1. Ethical precautions

Study participants were informed of the objectives of the study, and all 37 practitioners gave verbal consent to participation prior to being interviewed. Interviews were recorded on a digital media device with the permission of the participants,[21] and data stored in encrypted format with restricted access. Care has been taken to ensure anonymity of all individuals cited in this article.

Box 1. Topic guide for the in-depth interviews with 37 doctors

Educational, professional and social history
Context of joining their profession
Remit of medical duties and activities
Interactions with patients, any remarkable or long-standing associations
Familial bonds, experience of geographical distancing from family, if applicable
Community bonds, experience of geographical distancing from community, if applicable
Interactions with community leaders, social movements, individuals active in politics
Experiences of working conditions
Experiences of remuneration arrangements
Experience of changes and reforms in working arrangements or remuneration, if any
Interactions with co-workers, supervisors, referral units, other health system staff
Experiences of opportunities for personal development and capacity building
Experiences of competing opportunities elsewhere
Experiences of working in other locations, if any
Social, professional goals and ambition

3. Results

3.1. Profile of participants

The study participants are profiled in Table 1. Most of these doctors (34/37) had had a rural upbringing. Fourteen had been born or brought up in the district of their present workplace or a neighbouring district, and 17 in other districts of the same state. Thirty-four participants were married at the time of interview, most of them with children. Of these 34, 14 reported living apart from their families.

3.2. Joining a rural health post

Typically, combinations of factors were responsible for doctors' decisions to join rural service in the first instance. These are summarised in Box 2.

3.3. Staying in rural service: intrinsic factors

Geographical affinities (underpinned by a combination of factors relating to upbringing, community and culture) were the most widely cited and affirmative motivation that doctors associated with their decision to remain in a particular rural location. Most study participants reported that they had preferred to stay and work where they had been brought up; where members of their families or communities resided; and whose languages and culture they were familiar with. Participants also stated relative proximity to parents and other family members to be important.

Box 2. Summary of doctors' reasons for joining and remaining in rural service

Major reasons for joining
Geographical and ethnic (tribal) affinities
Personal values of service
Financial compulsions

Minor reasons for joining
Preferential admission to higher education

Major factors favouring staying on
Geographical affinities
Rural upbringing
Ethnic (tribal) affinities
Availability of good schools in the region
Personal values of service
Professional interest and ambition
Strong relationships with colleagues
Anticipation of security of regular job (contractual doctors)
Opportunity for both spouses to work and live in the same location (female doctors)

Minor factors favouring staying on
Spiritual and religious leanings
Disinclination for private practice
Financial compulsions
Getting accustomed to rural life
Closeness to parents and family
Familiarity/familiarization with village life
Good relations with local communities
Satisfaction and fulfilment
Good relations with supervisors

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Doctors who did not specifically have forebears in the locations where they were posted but had had a rural upbringing also cited a preference for rural jobs. Familiarity with village life and with associated values of simplicity and fortitude were the key factors cited in these accounts. Participants also specifically referred to an ethnic (usually tribal) identity as being a defining reason for their decisions to remain and serve particular communities.

Many doctors expressed personal values of service to the poor and selflessness as being important motivating factors for rural service. Others remarked on the personal fulfilment and the feeling of self-worth and usefulness of practising in otherwise underserved areas. Participants also specifically cited familial values as being instrumental in their continuation of service. In some instances service values were marked by overt religiosity, with the participants linking caring for the poor at no cost to performing a religious service. Other relevant personality traits included an incapacity or distaste for commercial enterprise, or a preference for the lifestyle of regular service, linked to a decision not to undertake private practice.

Quotations illustrating the role of personal or intrinsic factors in doctors' decisions to stay in rural areas are listed in Box 3.

Table 1
Profile of the study participants (n = 37)

Characteristic	n (%)
Sex	
Male	33 (89)
Female	4 (11)
Employment status	
Regular	25 (68)
Contractual	12 (32)
System of medicine	
Allopathic (western)	31 (84)
Indian systems and homeopathy	6 (16)
Years of service	
1–5	12 (32)
>5	25 (67)

Box 3. Intrinsic factors in doctors' decisions to stay in rural practice

Geographical and community affinities

I got tired of it (working in the city) so I stopped going on my duty. Then once the Chief Minister came close to our hospital, there was some programme – so I went there and I complained. I asked them to send me to the place where I came from. After 15 days, I got an order and I came here. I was really happy to come here from there. *(Allopathic doctor, regular, 11 years' experience, male)*

I belong to this place. My family is here since I don't know when. They (people) know me and now they feel that they should come to the hospital. . . Patients complain in Chhattisgarhi, which I understand very well. And their other language Gondi, it was also used in our house by my grandmother, so I can't speak it but can understand it to some extent. *(Allopathic doctor, regular, 4 years' experience, female)*

My mother and father stay in the village – we have our farming there. Its 150 km from here and I go every 2–4 months. It doesn't feel like we are far away from them. . . If they say that we have some health problem or something, we take out the vehicle and go. *(Allopathic doctor, regular, 8 years' experience, male)*

Rural upbringing

People from middle class, who are from cities – they don't like it here. We have always stayed in villages and financially also it's not that we have been brought up nicely – we have stayed in struggle. We like it in struggle, there is no problem in that. *(Allopathic doctor, contractual, 15 years' experience, male)*

It was already in my heart that I will live in a small place only and work. Because my background was not such, that I would have adjusted in a big place. *(Allopathic doctor, contractual, 10 years' experience, male)*

Tribal ethnicity

People run away from this place – it is a very tribal area, heavily forested. But I am myself a tribal, so (I thought) who will work in our area? We only will have to work in our area *(Allopathic doctor and specialist, regular, 8 years' experience, male)*

I am also an ST (Scheduled Tribe) and I am serving the ST people here, so I find it good (*Indian systems doctor, contractual, 3 years' experience, male)*

Service values

Patients will come to you hungry and naked, without money – we just think that God has given us an opportunity so maybe we have been born to do social service only. . . because I belong to a poor family, so I find it fine. *(Indian systems doctor, contractual, 3 years' experience, male)*

Here we work for only those people for whom nobody works. In a way we are working for the government and also doing virtuous work *(punya ka kaam)* by working for those for whom no one works. *(Allopathic doctor and specialist, regular, 8 years' experience, male)*

My father said that you try (working) for sometime in (a remote district). . .I came because of that, but later I started liking it here. Peaceful people live here and if you do a little for them, they treat you like family. *(Allopathic doctor, regular, 11 years' experience, male)*

I was drawn to doing a job that I am obligated to do, that I have to stand up and be counted. They were not happy at home – they said 'it's an (extremist-affected) area, there is so much fighting there, everyday it is in the TV' . . . (But I said) wherever one is, one has to die so if I have to die I will – whether here or there! *(Indian systems doctor, contractual, 3 years' experience, female)*

Aversion to private practice

I will not do (private) practice. What is the point in earning so much money, you will not take it with you (beyond the grave). I am an easily satisfied type of person – if I get it, it's good, if not, even then. It is all fate. I don't think much about it – just let it go. *(Allopathic doctor, regular, 11 years' experience, male)*

In private (practice) I had this problem that I could not ask for money. Like, if I see a poor person then I used to think, he is poor how will I ask for 150 rupees, so give whatever you want to give. So he would give 100 rupees. . . Like this I lost a lot of money. . . So I thought, let me go (into government service) – at least I will get (Rs) 15,000 in a month. It is my weakness. *(Indian systems doctor, contractual, 3 years' experience, male)*

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Box 4. 'Extrinsic' factors in doctors' decisions to stay in rural practice

Schools for children
There are discussions in the family but they don't have any objections with it, because the kids are studying in good schools . . . So that's why there is no objection that 'you are staying in a village' or anything. It's not 100% but school for the children, and other conveniences, we are getting them here. That's why we don't want to migrate towards the city anytime soon. *(Allopathic doctor, contractual, 10 years' experience, male)*

The greatest benefit of staying here was that we could educate the children here properly. One has gone to medical college and the other to engineering college. I feel this peace that my kids are studying well. This is my peace. *(Allopathic doctor, regular, 24 years' experience, male)*

Co-location with spouse
I got married here, and husband is from here, so I came here. Such opportunities are very rare, both husband and wife staying together, normally only one gets a position. He is in the same hospital; he is a doctor. *(Allopathic doctor and specialist, regular, 4 years' experience, female)*

Benefits, prestige of government job
This is a government job, so tension, financial tension, is less. . . We also get other benefits – like we get training for higher studies. We get knowledge, we meet a lot of big doctors – there are benefits *(Indian systems doctor, contractual, 3 years' experience, male)*

They (family) are very happy that I am a doctor – if there is some work in which I can help they do come to me, and I feel happy about it. It feels good when somebody in the family is in a high post. *(Allopathic doctor, regular, 11 years' experience, male)*

Anticipation of regular job
My wife stays elsewhere, children live elsewhere, so I think leave it, why bother just for 15,000 rupees – this much I can earn there (in private practice in town) also. But I see some possibilities, so I think that in a year or two I might get regular, then I can get my wife here only. *(Indian systems doctor, contractual, 6 years' experience, male)*

Irregularities in placements and transfers
I thought of taking a transfer earlier. But if a reliever (replacement) will not come then you will not be relieved – that's what they said. And in 2001 I did a transfer – but at that time also they did not get a reliever, so they were not ready to let me go. Two or three times I put in an application saying relieve me but they did not do so. Then I did not try again.*(Allopathic doctor, regular, 19 years' experience, male)*

Since you are asking, I will tell that when I came here I thought that I will stay for 2 years and then find something near my house. I sent in the request last year but they gave me a place further away near (another district). I did not take that and thought that I will apply again next year. *(Allopathic doctor, regular, 9 years' experience, male)*

3.4. Staying in rural service: extrinsic factors

Pragmatic rather than ideological factors often dictated the doctors' decisions to stay on. The availability of good schools for their children emerged as one important theme. The happenstance of spouses finding work in the same or adjacent locations, enabling them to live together, was also a factor favouring staying on reported by many of the participants (especially women).

While some participants indicated that private practice supplemented their government incomes, the opportunity for private practice did not emerge as a determinant of the decision to stay on. Practitioners in smaller hamlets and more remote habitations reported that most of their patients were unable to pay for services, and private practice was generally not considered viable or profitable. 'A patient will come to you hungry and naked, what 50 rupees will you ask from him?' said one contractual doctor.

The expectation of obtaining a regular job if they continued in service emerged as a significant motivating factor for contractual doctors. The security and prestige afforded by a government job was reported to be important, although the prestige associated with government jobs had waned in recent years. An ambition to progress to higher positions in the government public health system also emerged as a key motivating factor. Some doctors dissatisfied with their location remained where they were because the authorities were unresponsive to their requests for transfer, and their financial concerns prevented them from risking seeking new avenues of work.

Quotations illustrating the role of job and society-related (extrinsic) factors favouring the doctors' decisions to stay in rural areas are listed in Box 4.

3.5. Work-life continuum

For doctors in more remote areas, there was often no obvious separation between work and home life. Work places were also avenues for support and social interaction, and they shared living quarters, pastimes and preoccupations with co-workers. While there were instances of interpersonal differences, good personal and working relationships with colleagues were a source of strength and support. Supportive supervisors and peers were cited as being instrumental in creating positive working environments.

The extent of satisfaction from work was variable among the doctors. On the one hand, justifiably, most study participants were not satisfied with the support and facilities available to them. Conversely, there was also a widespread expression of being inspired by the unique challenges and ability to influence health outcomes. While participants complained about erosion of knowledge and the lack of educational opportunities, yet scientific interest and professional fulfilment was marked among several of them (see Box 5). The frequently critical nature of illness in poor and underserved areas, and the opportunity to achieve significant medical outcomes, was cherished. Others claimed particular interests and skills (eye care, infectious diseases, surgery, obstetrics, health administration, etc.), which they wished to develop further by means of training and higher education. Participants also

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Box 5. Expressions of medical professional identity in the rural context

Like a super specialist is saving life by removing brain tumours, I am working at the same level by treating cerebral malaria, meningitis patients. There is no difference in the work. It would only be my mentality that I am not a super specialist placed in some big place – so I don't have cars and other facilities. Otherwise my motive of serving is being fulfilled here. If there is a patient with diarrhoea and dysentery and the patient is in mortal state, if his life is saved then it has the same value as those in some big place. This is what I believe. *(Allopathic doctor, contractual, 16 years' experience, male)*

The life-saving that we have done – we have saved many people at the brink of death – some bike accident cases, malaria, snake bite – you get more satisfaction after giving such service. Basically I am a doctor; I like doctors' work only. *(Allopathic doctor, regular, 28 years' experience, male)*

reported interest in undertaking outreach work, and in implementing public health programmes in the community. A contractual doctor described work in a particularly strife-affected and remote area as being 'beautiful and challenging'.

3.6. Shifts in perspective

A number of study participants did not feel that taking up practice in a rural area had been entirely of their own choosing. There were other factors at play – financial needs and obligations, subjection to government placement processes, and opportunities for higher study. Remarkably, in this context, practitioners also recounted how, over time, they achieved a degree of comfort, and became accustomed to life and work in the villages. The doctors may not have originally have had a rural upbringing or previous community links in their place of work, but often developed close relationships with the local communities. This sense of belonging to local communities was also cited as a reason for staying on. There were also instances of close and extended friendships and relationships with particular patients or families.

The doctors narrated frequent and sometimes hazardous instances of interactions with extremist groups, widely regarded as a deterrent to practising in remote areas. However, participants also reported acclimatization to their purportedly dangerous, strife-afflicted environments. Time spent serving local communities and the relationships developed often led to a reduction in the perceived threat of violence. The quotations in Box 6 illustrate the importance of transformative processes in the lives of the practitioners, including developing relationships and trust with communities, and their privileged position in being able to engage professionally with security forces and extremists alike.

4. Discussion

Of all facets of an effective health service, the presence of health workers is the most fundamental requirement. Achieving the goal of an adequate number of health workers requires close attention to the frontline providers of health care – to their antecedents, the circumstances in which they live and discharge their duties, the web of interactions that define their roles in health systems and societies, and their interests, aspirations and needs.[24] The findings of the present study, which explored the work and lives of qualified practitioners serving in remote rural locations (hitherto uncharted, in India), are of strategic relevance for Chhattisgarh state, but also contain important lessons for those devising strategies to retain qualified health workers in rural and remote areas in comparable Indian and global contexts. (See Box 2 for the major and minor factors that favour staying on, i.e. those emerging prominently or frequently from participants' narratives, and those emerging less prominently or less often).

Among the limitations of this study is that the findings are based entirely on the individual accounts of practitioners in active rural service, and are hence both a partial and subjective version of the realities of rural medical practice – the findings should be read in that light. Furthermore, profiles of practitioners and environmental factors are likely to vary geographically, and hence the context of Chhattisgarh is indicative rather than representative of rural milieux in India. While many of the findings may have resonance in other parts of India and comparable LMI countries, we caution that those devising policies for different settings should independently explore the behaviour and motivation of practitioners in those settings.

Geographical affinities and rural upbringing were dominant factors favouring doctors' decisions to join and to remain in service in rural locations, supporting findings from numerous other studies in different contexts.[16,25–27] Tribal ethnicity as a factor presents as a new observation,

Box 6. Shifts in doctors' perspectives on rural service over time

In the beginning it was not good at all . . . you think that you will work at a good place . . . (but I was placed in) this PHC in a village! After that I thought OK let's try out this PHC job. Slowly I adjusted. I started feeling a sense of oneness with the people *(Allopathic doctor, regular, 4 years' experience, male)*

It was said that it is an (extremist) area and all, but I never faced any such problem. It's not that I haven't met them – we do meet them. They only want treatment; they don't have any other demands. They are also normal human beings like us. What happens between them and the police is a different matter. Our relations with them have been good. Our relations with the police have also been good. We are the people who give help. If we will extend help then who will harm us? No one will. People (other practitioners) should come here – unless they come how will they know? *(Allopathic doctor, regular, 11 years' experience, male)*

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and possibly a unique contribution of this study. The observation supports the adoption of policies such as affirmative action for entry into medical education for individuals originating from underserved areas, and also potentially for candidates with tribal ethnicity. Another potential strategic direction suggested by our finding is the decentralization of medical training; establishment of medical colleges in rural and remote areas would enable medical aspirants with a rural upbringing to train and find work in their preferred places of residence, and also allow urban candidates to get acclimatised to rural medicine.[16,28] Balancing the established fact of the importance of location, with respect to upbringing and community linkages, is the emerging significance of practitioners' vocations. The strong personal values and professional interests evinced by a number of participants belie the popular myth that doctors remain in rural areas only if they have to.

'Extrinsic' factors influencing doctors' choices included the availability of schools, employment for spouses and the promise of regular jobs. The willingness of contractual doctors to remain in rural service indicates a prevailing human resource market that is being inadequately exploited. In spite of significant concerns over the quality of working environments, regular government service was widely regarded by study participants as a stable career option, and a positive opportunity to contribute to the broader social good, even as these practitioners forsake the possibility of significantly greater income from private practice.

The importance of providing government servants with better working conditions and with key amenities such as better housing and educational opportunities for children cannot be overstated; however, achieving this necessitates intersectoral action, which is often difficult to implement.[29] Higher salaries for rural doctors would be a clear short-term solution, and one that could help defray the loss of private practice income.

The nurture of doctors' professional interests and ambitions, together with stemming the erosion of professional skills, is also an achievable goal for the health sector; in particular, opportunities to enhance skills and academic exposure in areas that reflect community needs can help to further doctors' professional interests, and reduce problems of intellectual attrition and isolation. Significantly, doctors seek accountability and respect from their employers. Rational and transparent procedures for placement, transfer, promotion and upgrading from contractual to regular services can all play a part in making rural government service a more attractive proposition.

A principal observation from participants' accounts is that intrinsic and extrinsic factors are not easily distinguished, but overlap and inform each other. Inborn motivation and vocation feeds off a positive system of supports and incentives and a conducive work environment.[17,18] This highlights the value of multidimensional strategies for retaining doctors.[29,30] Strategies based on targeting providers with specific attributes may not preclude the need for system reforms, including creating positive practice environments, better infrastructure, financial and non-financial incentives, and better accountability to employees. For example, a selective placement and contracting strategy that is not strong on employee welfare may not succeed.

Finally, our analysis also emphasises that factors favouring rural retention of doctors are not static but mutable: acclimatization to rural life, even among those with non-rural upbringing, was found to reverse some doctors' inclinations to leave. The doctors developed close, reciprocal relationships with communities over time, even though some were non-locals. Health policies cannot afford to neglect the transformative capabilities of medical practitioners, who are, eventually, purposive beings engaged in a deeply vocational pursuit, not simply passive targets of policy decisions.

5. Conclusion

Responding to the imperative to improve health workforce retention, so as to ensure access to health care for rural communities, calls in part for bold policy decisions such as setting substantially higher salaries for rural workers. However it would be erroneous to treat financial inducements in isolation as a long-term solution for such a complex problem. Even as rural workforce retention has emerged as a global concern for rich and poor countries alike, this should not obscure the fact that, in low-income settings such as much of rural India, the issue is inseparable from the broader developmental goals of strengthening public services and empowering communities.

The retention problem exemplifies the need for a holistic outlook on health systems reform – one that looks beyond merely the putative end-point of health outcomes, and concerns itself equally with the wellbeing of its employees, the creation of a healthy organisational culture in health facilities, and the propagation of core service values. Strategies to ensure and secure health worker welfare and workplace entitlements can contribute to long-term retention and sustain higher levels of performance.

Finally, and critically, solutions for rural workforce retention must be founded on an appreciation of the importance of community. In this study, strong community linkages and ethnic identity (notably of underprivileged groups) emerged as the definitive factors favouring doctors' decisions to remain in rural service, thus highlighting health providers' deep rootedness in local communities. Strategies to engage with rural communities and empower them to demand quality essential services may, in the long term, be the key to creating a more equitable balance of human resources for health.

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