

Rural Medical Practitioners: Who are They? What Do They Do? Should They Be Trained for Improvement? Evidence from Rural West Bengal

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Abstract

Private healthcare sector in rural India is often dominated by unqualified rural medical practitioners (RMPs). However, there is limited systematic evidence with regard to RMPs and their potential for an intervention to reduce their harmful practices and improve quality. This paper presents their brief profile. It critically examines their role and explore the need for an intervention for harm reduction and quality improvement. The sample included 104 RMPs, 765 household respondents, 188 Panchayat members and 48 ANMs. They are examined in terms of their knowledge, attitude and practice parameters. Results are analysed in the light of evidence from previous studies. Their knowledge varies by disease but for more than half of the difficult cases they seem to suggest right medicines. Users are generally satisfied with them with regard to effectiveness of treatment and price. Panchayat members and ANMs have mixed opinions but are in favour of a training programme to improve their work. They too feel the need for training but their expectations vary along with willingness to pay for it. RMPs are an essential and unavoidable component of rural health care in India, but their role should not be overemphasized. As a transitional arrangement, the initiative of training them must be explored but not tuned to institutionalise them so as to attract more people to join the RMP force.

Keywords: Rural India, Rural medical practitioner, Rural health intervention.

I. Introduction

Private health sector in India, as in the developing world, consists of a variety of providers ranging from super-specialty facilities equipped with the latest technology and qualified doctors to the unqualified rural medical practitioners (RMPs) or quacks who have little formal knowledge to back their treatment practices. The existence of RMPs both in the rural areas and urban slums in India and elsewhere are documented in some studies (Rohde & Viswanathan, 1994; Rahman et al., 1998; Das, 2001; Naidu et al., 2003; Pratchi Trust, 2005; Das, 2007; Kanjilal et al., 2007; George & Iyer, 2013; Gautham et al., 2014). From time-to-time serious concerns have been raised about the quality of health care rendered by this vast number of RMPs as the poor quality of health care rendered by them is likely to have serious implications for disease transition, spread of infectious diseases and development of drug resistance in the community (Mills et al., 2002).

The existence of RMPs or quacks is as old as the history of health care (Wear, 2005) and different definitions of quacks are found in the literature. From the point of view of law and legitimacy, qualified practitioners are different from the quacks mainly on two counts: (a) the former are recognised by the state; and (b) expected to possess the knowledge of best acceptable practices in a given context (Wear, 2005). In India the Supreme Court defines a quack as *a person who does not have knowledge of a particular system of medicine but practices in that system and as a mere pretender to medical knowledge or skill, or to put it differently, a charlatan*. An operational definition of RMP is found in Kanjilal and others who include three types of health care providers: (a) who practice without any formal training on any stream (allopathy, homeopathy, Ayurveda,

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etc.); (b) who graduated in medicine from any unrecognised organisation; and (c) who graduated in a non-allopathic system but practise the allopathic system of medicine (Kanjilal et al., 2007).

Given that there is limited systematic evidence with regard to the RMPs and potential for an intervention (e.g., a training programme) to improve their quality, the current paper sets out three objectives. First, it aims to provide a detailed profile of an appropriately sampled set of RMPs by delineating their background, knowledge, attitude and practice and their interface with components of the community where they practise – the users, government health workers and community leaders/elected representatives. Second, the contributions and prospects of the RMPs are critically examined in the broader context of health care provision in an underserved community and the need for interventions by the state and/or NGO is discussed. While the first two objectives are solely based on the data from the primary survey, the last objective uses data both from our own primary survey and evidence from other studies.

II. Context and sample

The empirical analysis of this paper is based on data from a primary survey which was carried out in August-September 2010. The survey covered three administrative blocks of Birbhum district in West Bengal, namely Dubrajpur, Sainthia and Mayureswar. Birbhum is predominantly a rural and agricultural district and is one among the typically backward districts of West Bengal. According to the Census of 2001, more than 90 per cent of the population lives in the rural areas and earns its livelihood through agriculture and related activities. The district has a large proportion of socio-economically backward population (scheduled castes 29.5 per cent, scheduled tribes 6.7 per cent and 35.1 per cent Muslims). The rural sector of the district is divided into nineteen administrative blocks. The survey blocks were selected considering a block's population density and percentage of socio-economically backward population along with various logistical advantages for conducting the primary survey. All RMPs practising in these three blocks were listed. Only those RMPs having at least 10 years of schooling and were willing to take part in the survey were finally included in the survey. Other than the RMPs, the survey collected information from other three types of stake holders – users of RMPs (i.e., the households), government health workers (ANMs) and community leaders (elected Gram Panchayat members) - all from the areas where the RMPs practised. From each RMP, a list of users/patients was obtained. It was then converted into a household list and was stratified based on caste and religion. A maximum of 10 sample households was selected for each RMP and attempt was made to ensure two ST users, two SC users, two Muslim users and remaining four other users as far as possible. An attempt was also made to include at least four women users (mother or non-mother) for each RMP as far as possible. From each sample household, one respondent was selected who visited the RMP in recent time preceding the survey. It would have been ideal to include the government doctors working in the rural areas as representative of government health workers. However, it was found during the pilot survey that in many cases the government doctors did not know all RMPs working in the area and it was the ANMs who were having a fairly good idea about the practising RMPs in the areas they served. In all, our survey interviewed 104 RMPs, 765 households, 188 Gram Panchayat members and 48 ANMs spread across 18 Gram Panchayats in three blocks. Collected data were fed into the computer using CSpPro and analysed using the statistical software Stata.

III. Results

A brief profile of the RMPs

A brief profile of the sample RMPs is provided in Table 1 using select summary measures. For most of the RMPs (79.8%), medical practice was the main profession but almost all of them were simultaneously engaged in other income earning activities, sometimes in multiple activities. The other income earning activities were agriculture, petty business, LIC agency, assisting qualified doctors, etc. The average age of the RMPs was about 41 years (median age 39 years). Approximately 60 per cent of the RMPs are 40 years or less and about 80 per cent of them are 50

years or less. Their average year of schooling is 12.5 years and the average duration of experience is 13.2 years. However, our sample of RMPs included only those who completed at least 10 years of schooling. As a source of knowledge required for the practice, little more than one-third of the RMPs received it either from working with a qualified doctor as assistants and more than half of the RMPs either learned from other RMPs (mostly from their fathers or ancestors) or from medical institutions of questionable credential.

Table 1: Summary statistics for RMPs

	Estimate	(95% CI)
RMPs having medical practice as the main occupation (%)	79.8	[70.8, 86.5]
Average years of schooling	12.5	[12.0-12.9]
Average years of experience	13.2	[11.3, 15.0]
Average number of trainings attended	1.0	[0.6, 1.3]
Having own chamber/clinic (%)	85.6	[77.3, 91.2]
Provide both allopathic and other medicines (%)	14.4	[8.8, 22.7]
Average number of patients	14.9	[12.6, 17.2]
Go on call (visit patients' house) (%)	89.4	[81.7, 94.1]
Provide all medicines most of the time (%)	76.0	[58.5, 95.2]
Having own fridge (%)	37.6	[28.6, 47.6]
Procure medicines from wholesalers (%)	57.4	[47.4, 66.8]

Source: Primary survey (2010).

Knowledge

The estimates of a select set of parameters with regard to RMPs' knowledge, attitude and practice are presented in Table 2. A number of pointed questions were asked to examine RMPs' level of knowledge of some specific diseases, their symptoms and treatment. Their level of knowledge with regard to possible reasons for breathing trouble was found to be very poor. More than 60 per cent of them could not name asthma as one of the possible causes of breathing trouble. Only 3 per cent of them could tell four commonly found causes of breathing trouble and as high as 22 per cent of them could not tell even a single possible reason for breathing trouble. However, their knowledge and awareness were better with regard to possible reasons for stomach pain. Almost half of the sample RMPs could mention four most common reasons for stomach pain. Out of 104 RMPs we surveyed, 50 RMPs reported to experience at least one 'complicated medical case' in the last three months. Symptoms of the patients as described by the RMPs and the medicines prescribed by them were recorded. Other details of the patients along with this information were screened by a team of two qualified doctors to judge the appropriateness of the medicines prescribed. Comments on the prescribed medicines were then classified into four categories: (a) right medicine, (b) probably right medicine, (c) wrong medicine; and (d) difficult to comment given the information. It was interesting to observe that in 28 cases (56%) the RMPs prescribed/provided either right medicine or probably right medicine. Out of the remaining 22 cases, only in 5 cases (10%) wrong medicines were prescribed. For the rest of 23 cases, it was either difficult to judge or no harmful medicine was suggested.

Attitude

About 39 per cent of the RMPs reported to have no interaction with fellow RMPs practising in the same or neighbouring areas. With regard to their attitude toward referral of what they considered 'complicated' or 'difficult' cases, a mixed pattern was found. As per their reporting, one-fourth of the patients were directly referred to the government facilities and in half of the cases the patients were referred to government hospitals or private doctors only after providing what they considered essential minimum primary care. None of the RMPs reported that referring patients to government hospitals or private doctors would be damaging to their reputation, rather they feel that referring the patients in right time would earn them trust of the community and the patients who get cured after referral generally came back to them to share the information of the treatment. Against

this finding, it is surprising to observe that one-fourth of the uncommon/complicated cases were retained by the RMPs and this is a matter to worry.

Table 2: The knowledge-attitude-practice parameters of the RMPs

Parameters	Estimate	(95% CI)
RHCP who could mention at least three right causes of breathing trouble out of the following four causes: asthma, heart disease, respiratory tract infection and anaemia (%)	10.6	[5.9, 18.3]
RHCP who could mention at least four causes of stomach pain out of the following seven causes: out of the following four causes of breathing trouble: asthma, heart disease, respiratory tract infection and anaemia (%)	49.0	[39.4, 58.7]
RMPs who could rightly answer what criteria one should consider for deciding about the doses of antibiotics (%)	50.0	[40.4, 59.6]
RMPs who believed that referring patients to other providers harms their reputation (%)	2.9	[0.9, 8.7]
RMPs who could tell at least three symptoms for identifying risky mothers (%)	10.6	[5.9, 18.3]
RMPs who could tell pregnant women need minimum 3 antenatal check-ups (%)	56.3	[46.5, 65.7]
RMPs who could tell pregnant women the need for need tetanus injection (%)	55.3	[45.5, 64.8]
RMPs who could tell pregnant women the need for iron-folic acid tablets (%)	61.2	[51.3, 70.2]
RMPs who could rightly tell how many doses of BCG a child should be administered in one year from birth (%)	43.3	[34.0, 53.1]
RMPs who could rightly tell how many doses of OPV a child should be administered in one year from birth (%)	4.8	[2.0, 11.2]
RMPs who could rightly tell how many doses of DPT a child should be administered in one year from birth (%)	22.1	[15.1, 31.3]
RMPs who could tell at least 2 correct reasons for a liver disease	51.9	[42.2, 61.5]

Source: Primary Survey (2010).

With regard to RMPs' felt need for further knowledge, almost 95% of the RMPs feel the need for undergoing some kind of training programme by qualified doctors for improving their knowledge and treatment practices, although they do not show any willingness to pay for such training. An in-depth interview of the non-willing RMPs does not indicate that they are better-off in terms of knowledge and practice. A majority of the willing RMPs do not have well specified goals on what they expect to learn from the training programme. A significant number of them expressed goals such as teeth removal and small surgery, etc.

Practice

Most of the RMPs (85.6%) practise allopathic systems only and the remaining 14.4 per cent of them do prescribe ayurvedic and/or homeopathy medicines along with allopathic medicines. On an average, an RMP gets about 15 patients per day. Even though our survey included questions on RMP's earnings, it was difficult to separate out their earnings from the cost of medicines as all RMPs charged fee as mark-up on the cost of medicine and the proportion of mark-up varied across RMPs and users.

About 76 per cent of the RMPs provided almost all the required medicines to their patients. More than 90 per cent of them store their medicines and about 57.4 per cent of them procure medicines from the wholesalers or dealers. The medical representatives of pharmaceutical companies visiting RMPs are common for RMPs with good patient-turnover. About 70 per cent of them administered intravenous injections and 64 per cent administered drip. Most RMPs (95%)

provide antibiotic though only half of them could say what characteristics of the patients they would consider while deciding about the doses of antibiotics.

Even though half of the RMPs in the sample reported that pregnant women do come to them, similar question with one-month recall period resulted in a negative response. All RMPs report that they always refer the pregnant women to health centres after doing the essential primary check-up. Serious doubts can be raised both about RMPs' knowledge of what constitute the essential check-up as well as their capacity to carry out the check-up (Table 2). Although checking of blood pressure, anaemia and pulse rates were reported by a large number of RMPs, an equally good number of them mentioned about check-ups which required advanced knowledge and equipment. Their lack of knowledge with regard to reproductive health care is supported by the evidence that only 10.6 per cent of them could tell at least three symptoms of possible risky pregnancies. Their knowledge of immunisation is equally poor.

Perspective of users

Our sampling design does not allow us to estimate what proportion of rural population goes to the RMPs when they fall sick. Estimates from other studies suggest that such figures can lie anywhere between 60 per cent and 90 per cent in the rural areas (Rohde & Viswanathan, 1994; Kanjilal et al., 2007). Since our sample of households includes only those households which visited an RMP in the last three months preceding the survey, it could explore the reasons why they preferred RMPs to other health care providers. The main reason why a large majority of the rural population prefers RMPs to 'free' government facilities is the easy accessibility of the former. The second major reason is related to the poor quality of the government facilities as perceived by the rural people. Parameters capturing patients' experience with the RMPs are provided in Table 3. A majority of the users (62%) do not consider their illness serious enough to go to government facilities or qualified private doctors. The average cost of visit to an RMP is Rs. 61 (median cost is Rs. 50) and as high as 90.5 per cent of the respondents are satisfied with the price charged by the RMPs.

Table 3: Parameters capturing patients' experience with RMPs

Parameters	Estimate	(95% CI)
Patients who said RMPs explained reasons for the illness (%)	48.9	[44.7, 55.1]
Patients who said RMPs explained how to avoid such illness in the future (%)	56.0	[51.8, 60.2]
Patients who said RMPs provided all the medicines	61.0	[56.8, 65.0]
Patients who paid fees of RMPs in instalments (%)	26.0	[22.5, 29.9]
Patients whom RMPs charged right or less money (%)	90.5	[85.4, 95.6]
Patients who were happy with the service of RMPs (%)	69.2	[65.2, 73.0]
Patients who would visit RMPs in the future for similar illnesses (%)	86.6	[83.5, 89.2]

Source: Primary Survey (2010).

Role of RMPs: from the perspectives of ANMs and GP members

It may be important to know the views of the government health workers such as ANMs about the RMPs. The ANMs do have a fairly good idea about the RMPs practising in their areas (Table 4). Their opinion is mixed. Their skill in providing curative care is perceived to be low by the ANMs. Though about 20.8 per cent (10 out of 48) of them sought help of RMPs in public health programmes such as pulse polio and health camp for reaching out the population, only 10.4 per cent (5 out of 48) of the ANMs believe that RMPs can properly treat patients. A majority of them believe that the easy accessibility of RMPs and rural population's greater trust in them in case of minor illnesses and not so much due to the unavailability of government facilities are responsible for RMPs' popularity and the subsequent bypassing of government facilities. More than 80 per cent (38 out of 48) of the ANMs believe that the role of RMPs can be improved by providing them proper training.

Table 4: Interaction and attitude related parameters for the RMPs and community

ANMs' knowledge and opinion	Estimate	(95% CI)
Knowing the RMPs in their areas		
ANMs know all RMPs in their work area (%)	18.8	[9.8, 32.9]
ANMs know one/few RMPs in their work area (%)	72.9	[58.2, 83.9]
ANMs don't know any RMP in their area (%)	8.3	[3.0, 20.8]
ANM believe that RMPs can treat some ailments (%)	62.5	[47.6, 75.3]
ANMs' opinion on why people prefer RMPs		
Easy accessibility and availability (%)	54.2	[39.6, 68.0]
Higher trust in RMPs (%)	33.3	[21.1, 48.2]
RMPs provide medicines (%)	8.3	[3.0, 20.6]
Unavailability of government doctors (%)	22.9	[12.9, 37.4]
ANMs who ever took help of RMPs (%)	20.8	[11.3, 35.2]
ANMs who believed that training could improve RMPs (%)	81.3	[67.1, 90.2]
GP members' opinion	Estimate	(95% CI)
GP members' assessment about the quality of service provided by the RMPs		
Very good (%)	13.0	[8.1, 20.3]
Moderately good (%)	56.9	[47.9, 65.5]
Average (%)	25.2	[18.2, 33.7]
Cannot say (%)	4.9	[1.6, 14.8]
GP members who believed that RMPs could assist government health workers (%)	30.9	[24.6, 37.9]
GP members who believed that training could improve RMPs (%)	76.6	[69.9, 82.1]

Source: Primary survey (2010).

The opinion of the GP members about the quality of health care rendered by the RMPs is also mixed (Table 4). Almost 30 per cent of GP members find the quality either average or are not in a position to comment. Even though little less than one-third of the GP members are of the opinion that RMPs can help the government health workers on various health-related programmes in the village, they could hardly specify any such programme or activity where the support of the RMPs can be utilised. Like the ANMs, a majority of the GP members (76.6%) believe that RMPs need more training and such training if provided could improve the services rendered by them.

When we look at the ANMs-RMPs or Panchayat Member-RMPs interaction from the RMPs' point of view, we know most of the RMPs personally know the ANMs who are working in their areas. Very few of them visited the local health centres for attending meeting of public health programmes such as pulse polio, malaria or filaria. Their association with the local government (Panchayats) does not appear to be strong. RMPs enjoy good relation with the GP members at personal level but they do not have any formal communication channel with the local governments. More than 80 per cent of the RMPs do not have knowledge if any health-related meeting has taken place in their GPs in the last three months which is organized by the Panchayat or Health Department. Only 16 per cent RMPs had knowledge that a health-related meeting took place in Gram Panchayats and only 5 per cent of the RMPs were called for it.

IV. Discussion

A number of studies including our analysis suggest that among the rural populations higher dependence on the RMPs is due to latter's close proximity, continuous availability, cheaper cost, perceived 'greater effectiveness' of treatment and options of part payments. This is compounded by the fact that many public facilities, especially those located in the rural areas are run with lesser doctors and health staff than what is required even by a loosely set standard (Madur, 2007). The RMPs score better in terms of availability and continuity as high absenteeism among doctors and health staff is a regular feature in many public health facilities located in the rural areas (Chowdhury et al., 2003; Banerjee et al., 2004).

Though it is a common perception that treatment by the RMPs is cheaper than treatment by other healthcare providers, a study found that a typical visit to an RMP costs as much as it costs to visit to a government facility (Kanjilal et al., 2007). As far as the perception of 'higher effectiveness' of treatment is concerned, there are few possible reasons for developing such perception. First, in the absence of any legal control, RMPs prescribe and provide medicine which the ordinary health workers are not authorised to prescribe even if they possess the same knowledge as the RMPs with regard to the disease and possible treatment. There are clear rules about what an ordinary health worker can and cannot do. Second, patients are more satisfied with the RMPs as they receive more attention from them than what they usually receive from the health workers or the doctors at the primary level facilities. Moreover, the treatment provided by them is often believed to be more effective by their patients as they are more prompt in administering injections and intravenous drops as desired by many patients, even if medical conditions do not warrant (Dugger, 1998; Banerjee et al., 2004; Dugger, 2004). Third, they do not generally charge separate fees and rather compensate that by adding a surcharge on the fees for medicines. Most of the patients tend to believe that they are only paying for the medicines (Rohde & Viswanathan, 1994).

More than half of the RMPs (57.4%) in our sample procured medicines directly from the wholesalers and not from the retail medicine shops. Medical representatives regularly visit those RMPs having good business and often act as a sole source of information for new drugs. In the absence of any formal and authentic channel for them to know about new diseases and new medicines, salesmen of medical companies (medical representatives) fill that vacuum. Salesmen not only supply them medicine but also teach them when and how to use them. In a situation where the practices of the qualified doctors are influenced by the biased information from the pharmaceutical companies, one can imagine how severe such influence could be for the RMPs (Avorn et al., 1982; Kamat & Nicheter, 1997). However, the prices of medicines and implied cost of treatment can probably work as a constraint since any cost increase will have an expected negative effect on the demand for RMPs' treatment. Like another study, we too found that RMPs generally buy those medicines which are effective but not expensive (Dugger, 2004).

Though it was not observed in our study, other studies have found significant numbers of children and pregnant women being treated by the RMPs. This can have larger implications for the functioning of publicly funded Reproductive and Child Health programme in the rural areas. Boys among the children often get priority for getting treated by the qualified doctors and treatment by RMPs becomes the first choice for girl children (Pandey et al., 2002). In such an environment of gender discrimination, improving the treatment practices of the RMPs is going to be beneficial for the girl children or others who face similar type of discrimination in health care utilisation.

People's perception of 'more effective treatment by RMPs' often does not stand empirical scrutiny. About 60 per cent of rural hospitalised persons had initiated their treatment with the RMPs and out of them a large number shifted to hospitals due to non-recovery of illness or deterioration of health status (Kanjilal et al., 2007). Another study also did not find higher effectiveness of treatment by the RMPs (Das, 2007).

The harmful practices of the RMPs are documented in many studies. They prescribe antibiotics in smaller doses than what is required. Such patients often get better, but it leads to drug resistance which makes future treatment less effective (Dugger, 1998). Concerns were also raised from time to time by different quarters that various national programmes launched to eradicate diseases such as malaria, tuberculosis and cholera lead to becoming less effective because of the proliferation of RMPs (Dua et al., 1994; Singh & Raje, 1996, *The Hindu*, 2004). There are other harmful practices such as reuse of syringes or needles, use of unsterilized medical equipment and disposing of biomedical wastage in an unscientific manner. Late referral of cases or making cases complicated by wrong treatment is another problem. There is mixed evidence on this issue in our study as well as in other studies. Kanjilal and others found that for children only 10 per cent of the cases were referred to the formal providers, while another 20 per cent were not cured (Kanjilal et

al., 2007). The late referral of cases may not be confined to the child illness alone, there are anecdotal evidences that the quacks refer potentially or actually complicated cases to public facilities or qualified private doctors when cases go completely out of their control.

The governments seem to have two options with regard to the RMPs. The first option would be completely banning the RMPs with strict laws and provide 'standard' health care package by qualified doctors. The second option could be accepting the reality of RMPs and provide them with training on minimum essential aspects of curative treatment and public health and integrate them with the national health goals. Ensuring adequate basic health care facilities with qualified staff who would remain available round-the-clock for basic curative services and birth delivery in the rural areas does not seem to be feasible at least in the short-run. However, accepting the RMPs as a reality and allowing them to perform restricted role in providing health care may look as a pragmatic step. However, these two options are not necessarily mutually exclusive. While exercising the second option in the short-run, the government can aim at using the first option in the long run though the feasibility of such a move can be questioned. One can argue that even as an experiment, instead of banning their practices, a selected number of RMPs can be trained with some elementary knowledge of treatment in order to reduce their current harmful practices as well as improving their practices.

With some exceptions, most of the state governments do not seem to have addressed the issues related to RMP/informal provider/quack at a specific policy level. In some legal cases, governments have intervened when complaints were lodged against RMPs for harmful treatment (*The Times of India*, 2009). Andhra Pradesh has a history of associations of the RMPs (informal providers) and associations have grown so that they have an arrangement with the state government for providing them training with the aim of certifying them through state paramedical council (Cautham et al., 2014). It is not difficult to understand the reasons behind governments' soft stance on the RMP issue. In places where government health facilities are either non-existent or are of poor quality, RMPs become the only affordable option to the rural population. Banning the RMPs in such a situation without providing an alternative to the rural population can only raise agony of the people. But at the same time, legal aspects and pressure from the physicians' lobby make it difficult for the governments to accept publicly the positive role played by the RMPs. Doing so will amount to accepting its failure to provide health care to the poor population. Such a dilemma has possibly prevented the governments in most of the Indian states to take measures to monitor and control the activities of the RMPs.

V. Conclusion

This paper makes a case for interventions for the RMPs in order to reduce their harmful practices and improve the quality of their services. It is possible to minimise the risk of harmful practices of the RMPs by providing them hands-on training. Training has improved the diagnosis and counselling practices of informal providers in India. The provision of anti-malaria drugs by shopkeepers in Kenya and the management of diarrhoea and acute respiratory infections by private medical practitioners in Mexico are examples (Bojalil et al., 1999; Marsh et al., 1999; Chakraborty et al., 2000). In a control-intervention study it was found that as a result of training the traditional bonesetter could considerably reduce the rate of gangrenous limbs, infection, non-union and malunion (Onuminya, 2006).

However, an initiative for such as intervention may face socio-political and administrative constraints. Any initiative by the government for either accepting the role of RMPs in our health care system or facilitating training to them would face the opposition of the mainstream medical fraternity. Apart this, there are legal dimensions which may limit the involvement of the unqualified RMPs in the formal medical care programme of the government. In 1970s when oral rehydration salts (ORS) solution was experimentally introduced in Africa and South Asia during the passive outbreak of cholera, ordinary persons were trained to administer ORS since it was not possible to provide intravenous saline by trained doctors. The move faced strong opposition from

the hospital-based clinicians and oral rehydration treatment was regarded by them as a second-class treatment (WHO, 2009). In a similar way, the proposal by the central government a few years before to create a three-year training course to produce community health practitioners who would be deployed in rural areas that have an acute shortage of graduate doctors create a parallel stream of medical practitioners for the rural areas had triggered a heated debate across India which was finally abandoned (Madur, 2007). Second, the low education base of the RMPs may make it difficult to educate them through training programmes. There is also the issue of sustaining the knowledge which is provided through training, especially if changing practices are cost enhancing. Even the performance of qualified doctors has diminished a few months after the training (Mohan, 2003). It is, therefore, important to ensure that the RMPs do not continue their old practices and improve their current practices with the acquired knowledge from the training. Third, with regard to the referrals, an RMP may not have enough incentive to refer many of his cases to government hospitals or to qualified private practitioners as it may affect his credibility negatively. In the absence of an effective regulation of the rural informal practitioners, it is desirable to avoid making them appear to their patients more qualified than they are by combining measures addressing the practitioners by demand side measures. Finally, training the RMPs should be viewed as some kind of a transitional arrangement and should not attract more and more people to become RMPs.

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