Compulsory Rural Service – A Step Towards Achieving Universal Health Coverage?

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Abstract

Universal Health Coverage is being adopted on a larger dimension globally. One of the important components for effective implementation of Universal Health Coverage is adequately trained human resources at every level of healthcare. The production and retention of trained human resources is a huge on-going challenge. Several state governments in India have devised a strategy of compulsory rural posting for undergraduates and postgraduates from government institutes, ensuring the availability of medical professionals in rural and tribal areas. The present study was planned with the objective of assessing the understanding of postgraduate and super speciality course students regarding the compulsory rural posting against a financial bond, and evaluate the factors influencing the completion of the bond. The aim was to provide suggestions to improve the compliance towards compulsory rural posting. The study revealed that increased duration of the medical course due to inclusion of bond, career pathway being unclear, lack of incentives in the form of increased salary or extra marks during postgraduate admission, effect on pursuing higher studies, social and personal life were major deterrents in completion of the compulsory rural posting. We also propose measures such as educational reforms, policy level reforms and consideration of social issues so as to make the implementation of this strategy a successful model in taking Universal Health Coverage forward.

Background

India's vision of providing universal health coverage (UHC) to every Indian citizen, although focusing on financial protection, requires functional health infrastructure, adequate and effective human resources and sufficient availability of affordable drugs and technologies to be significantly implemented (Planning Commission of India, 2011).

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Currently, the healthcare delivery system in India is struggling with issues of shortage of skilled manpower in terms of production, distribution and retention (Biswakarma, 2012).

Inadequate production, inequitable distribution and poor retention of the trained health workforce are key constraints in achieving the objective of universal health coverage. While UHC aims to achieve the ideal 1:1000 doctor patient ratio, India is short of 850,000 doctors to reach this goal. Of the overall shortfall, 63% is for specialist and 10% for allopathic doctors (Biswakarma, 2012). Worsening the situation is the trend where approximately 74% of the doctors serve 28% of the national population living in urban areas.

Current scenario of Human Resource and Infrastructure with basic amenities in Maharashtra

In Maharashtra, the rural population accounts for 54.8% of the total population, and health status such as crude birth rate and infant mortality rate are higher in rural compared to the urban population (Ministry of Health and Family Welfare, 2011). As of March 2011, there is no shortfall of doctors in Primary

Health Centres (PHCs) based on the sanctioned posts, but 36.6% of the total sanctioned posts are vacant. In Community Health Centres (CHCs) (365 specialist posts for each i.e. physician, obstetrician/ gynaecologist, surgeon, paediatrician) there is a shortfall of 249 and 31 vacancies for surgeons, 140 shortfall and no vacancies for obstetrician/gynaecologists, shortfall of 287 and 41 vacancies for physicians and shortfall of 184 and no vacancies for paediatricians. There is a shortfall of 138 of 722 sanctioned posts among general duty medical officers at CHCs.

The assessment of health infrastructure shows lack of basic amenities such as water, electricity and road access, with 8.6% of PHCs without electricity, 18.9% without regular water supply, and 25.4% without all-weather road access by motor vehicle. Of 1,809 PHCs only 11.8% are functioning as per Indian Public Health Standards (IPHS) norms.

In an attempt to address the issue of unavailability of trained medical professionals in rural and tribal areas, some state governments have introduced compulsory rural posting against a financial bond after completion of undergraduate and postgraduate medical courses (Sundararaman & Gupta 2011). In the state of Maharashtra, the government has mandated a one year compulsory rural posting after each undergraduate, postgraduate and super speciality course, which is to be completed after the conclusion of the course against a financial bond of Indian Rupees 500,000/-, 5 million and 20 million respectively for the above courses.

Methodology

The purpose of this study was to assess the awareness of postgraduate and super speciality students about the compulsory rural service against a financial bond and to evaluate factors responsible for the completion of the bond, and make recommendations to improve compliance and assure the availability of skilled manpower in hard to reach rural and tribal areas, thus strengthening the primary healthcare services and taking a step towards providing universal health coverage.

A range of literature was reviewed and a questionnaire was designed and pretested for medical students enrolled in the postgraduate and super speciality courses of a randomly selected Medical College and Tertiary care Hospital. A purposive sample of 150 postgraduate and super speciality resident doctors of a Medical College and Tertiary Care Hospital was included. Data was collected by administering the pretested questionnaire and through informal discussions.

Results

The results are presented thematically and have been divided into the following domains. The responses of the participants have been integrated for the purpose of explanation.

Demographic Profile of the respondents

The respondents consisted of 64.7% males and 35.3% females. Of the total 150 respondents, 70.7% were unmarried. Further, 90% were postgraduate and 10% super speciality resident doctors. Mean age for males was 28± 3.2 years and 27± 1.5 years for females. Thus, the majority were below the age of 30 years and unmarried. While there are no studies associating age and marital status to rural service preference, the issue of good schooling for children is a factor among married doctors which we observed to be associated with the rural service.

"*I am almost 26 years old, to complete my post-graduation, I will need 2 more years and after that if I have to go for 2 years in a rural area to complete my undergraduate and postgraduate bond. Then when do I start my practice and how long will it take to settle down? And without any career and financial settlement how do I think of marriage and a family life? Whereas my friends who are in engineering or management field are already earning a huge package, bought a house, car and enjoying a good life style" -* ***postgraduate resident.***

It should be noted that in India, the recruitment of students for medical courses (undergraduate or postgraduate) is done by competitive entrance exams and the full course is of 5 ½ years duration including one year of compulsory internship. With the hope of obtaining a good rank in the competitive exams, students prepare for almost 1-2 years for these exams, thus extending the education period for medical professionals.

Awareness and Knowledge of compulsory rural service bond

Of the 150 respondents 47.3% were not aware of the bond before starting their career in the medical field. If they had known about the bond at the time of admission, 20.7% doctors

strongly responded that they would not have joined the medical profession.

The strategy of the government in implementing this compulsory rural service bond was known by only 48.7% of the respondents. Among them, 28% postgraduate students and 75.3% super speciality students were unaware about the exact amount of the bond money to be paid to the government in case of failure to complete the bond.

Perceptions regarding usefulness of bond with respect to community and the serving doctors

"*We do not get adequate training during our internship or medical course to directly go and handle a PHC. In the PHC we are not only supposed to look after the patients, but we have to manage the PHC staff as well as look at all the administrative issues like procurement of drugs, maintaining registers, reporting in various formats under the national health programmes. We have only theory knowledge of these issues that also to a limited extent. We do not have any hands on training to manage a PHC" -* ***A postgraduate resident having completed his one year UG bond.***

In this study, 52% of the doctors felt that during the compulsory rural posting the experience will not enrich their knowledge or skills in anyway. Over half (54.3%) doctors felt that if they are posted in district or tertiary care hospitals instead of rural hospitals, poor people will be served in a better way.

The posting of doctors for a period of one year under the compulsory rural posting was perceived as beneficial to the community by 72% of the respondents, but 11.6% felt that only the availability of doctors without infrastructure and facilities would not achieve the purpose of serving rural people.

The compulsion of the bond within a specified period will cause many of the doctors not joining the given postings or else remain absent on duty was felt by 26% of the respondents. Majority of them remarked that as the curriculum is closely linked to a tertiary care hospital, they find it difficult to function in a remote PHC where there is no multidisciplinary support.

Compliance towards completion of bond and continuation of service:

With respect to the reasons to serve the bond, 70.7% reported that they will serve it because it is compulsory and 14.7% said they were really interested to work in rural areas and gain the experience. A further 12.6% were inclined towards completing the bond because of the financial security that it offers, though only limited to the bond period.

After completion of the compulsory rural service, 71.3% were of the opinion of discontinuing rural service. However, 27% thought they may continue if adequate incentives are provided, whereas 25.5% were inclined towards pursuing higher studies.

As per the study and the literature reviewed, the various factors affecting the completion of compulsory rural service bond are as follows:

- *Pursuing higher studies:* compulsory rural service will affect the pursuit of higher studies according to 84% of respondents. According to 15.6%, the compulsory rural posting will increase the duration of the medical course, whereas 26.7% felt it will cause a break in their academic path.

- *Professional development:* among the respondents 11.4% felt that as they will be in distant areas and will be expected to be there on 24/7 duty, they will not get an opportunity to attend Continued Medical Education (CMEs), workshops or training programs of their interest which can enhance their knowledge and skill and 28.8% felt working in a PHC will lead to neither utilization nor enhancement of their knowledge.

- *Social life, stability and security issues:* Compulsory rural service will drastically affect their social and personal life according to 77.3% of the respondents. Residing in such remote areas will keep them away from their family (33.7%), as majority of the respondents were unmarried, they were planning to gain financial and career wise stability and security so that they can advance their personal life by thinking of marriage and extending their families but if the living conditions are not favourable then they will have to forego of their married life which can be distressing at this point in their life (11.6%). Issues like non-availability of employment opportunities for the spouse and good schooling for children, security in case of female doctors are also important factors influencing the students to complete the CRS willingly and to stay in the service after the completion of the bond.

Finally on the opinion whether there should be a bond system for medical graduates, **73.3% doctors felt there should not be any compulsory service bond**. The following alternatives were suggested by the respondents:

1. The rural service itself should be made voluntary and not compulsory

2. The duration of the bond should be decreased

3. The postings should be according to subject specialisation and maximum efforts should be taken to ensure that the skills of the resource personnel are used to the optimum.

4. Provision of basic facilities to ensure adequate living conditions with electricity, water, staff, drugs and equipment.

5. The doctors serving in the rural areas should be given incentives according to the inaccessibility of the area where they are posted. The bond money to be paid on failure to complete the bond should be reduced

6. Apply same rules for all government run colleges in all states of all disciplines, including IIT, IIM, etc.

7. Allow continuation of service for those doctors who wish to serve the government even after completion of bond.

Discussion

This research is based on a limited number of interviews and though not conclusive, provides suggestive findings. Due to the purposive and restricted sample the findings cannot be generalised. However, further elaborative studies can be conducted to analyse the intricacies of the retention of human resources in the medical field.

The above observations and responses clearly state that the duration taken for a student to complete his graduation and postgraduate studies is greater than in other disciplines. The medical professionals do not have a clear pathway in which their career will take them. Above all, the compulsory rural postings extend the course duration which leads to more uncertainty and insecurity. Various factors such as not posting the doctors according to their subject of specialization where they can use their acquired skills, poor infrastructure, scarcity of facilities like instruments drugs etc. influence the compliance towards compulsory service. Professional opportunities linked to the career pathway such as better opportunities for following a postgraduate course, or skill up-gradation opportunities when offered as an incentive for health professionals working in rural / remote areas, without any mandate of bond have shown better results (Sundararaman & Gupta, 2011).

There is a clear indication of miscommunication between the administration and the students before and during the admission process. In addition, the figures clearly state that knowledge of the bond prior to seeking admission may lead to students preferring other areas of study instead of the medical profession. This may lead to successively less high performing students entering the medical profession, further instigating deterioration of the standards of education, performance and at the end, the delivery of inadequate quality services to the community.

According to majority of the respondents there is a need to revise the curriculum and make it more rural friendly with appropriate hands on training.

The above observations show that the postgraduate students either pursue higher studies or cannot utilise their skills due to lack of infrastructure, other resources and also due to the desire to experience a better lifestyle. Still, financial incentives play a role in retaining the doctors, but maybe for a short period, as it has been documented in various studies that financial incentives can only be a temporary motivating factor.

Mandatory rural service as a condition for postgraduate admissions, have helped to attract doctors to rural areas, but failed to retain them. Also young doctors obliged to give such service, while preparing for postgraduate admissions may often get a person notionally available, but not in body and spirit. This closely matches with the international experience as well, as documented by the Public Health Foundation of India and the World Bank (2008).

Snow *et al.* (2011) assessed the rural posting preferences of senior medical students. The responses were categorised as follows: to provide career development incentives, to

provide clear terms of appointments with reliable endpoints and salary top-ups, clinical infrastructure, adequate accommodation and provision of schooling for children (Snow *et al.,* 2011).

Recommendations

Irrespective of the above limitations the research findings highlight the need for modifications and transformations at different levels such as educational, policy making, implementation and social to be undertaken in an integrated manner with systematic reviewing and planning of strategies so that the existing trained human resource can be utilised to the optimum.

Educational level:
There is an urgent need to revise the medical curriculum and intensify the practical aspects so that the students are trained in view of preparing them to manage a primary healthcare centre independently. The period of internship is a crucial period, but internship followed by entrance exams changes the focus of the students from learning through experience to preparing for their entrance and losing the opportunity of hands on training. It is suggested that the entrance should be scheduled at the commencement of their final year examinations.

Policy Drafting and implementation level:
At policy making level, the following issues should be considered based on the study findings as it was seen that the factors like compulsion of the bond, duration of the bond and the money to be repaid in case of bond failure should be reconsidered. The incentives though a temporary motivating factor can be thought of for retaining some of the doctors. The doctor's incentives should be directly proportional to the inaccessibility of the area of posting. The career pathway should be well defined with timely promotions and opportunities to pursue advanced courses. The guidelines of bond execution should be clear and communicated before giving admission forms. The doctors willing to continue after serving the bond should be absorbed to the government service. Integration with other sectors so as to improve the living and working conditions is necessary. Consideration of all these issues while revising the policy will certainly increase the compliance towards completion of the bond service.

Consideration of social issues:
The above observations cannot be complete without considering the issues affecting the social and personal life of the individuals such as long duration of course, average duration to clear entrance, availability of spouse employment and good schooling for children. As stated earlier, monetary incentives are a temporary motivation, the permanent motivating factors are defined career path, basic amenities, financial security and stability.

Conclusion

The results of the study have pointed to the fact that compulsory rural service against a bond can definitely work towards achieving the said objective of filling the gap of skilled human resources for health specifically in rural and tribal areas and thereby help in achieving a larger goal of providing universal health coverage to every Indian, but this is subject to the realisation of factors which are strongly responsible for the success of this strategy. There is a need to dwell on issues highlighted by this study so as to enhance the compliance of the serving doctors. Other studies to assess the posting of these doctors, the percentage completing the bond etc., should be carried out to further explore the topic. Brain storming sessions on alternative strategies and revision of curriculum is an urgent need.

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