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Review Article

India's Frontline Health Workforce: Theoretical Perspectives and Operational Challenges

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ABSTRACT

FHWs are among the most utilized health workforce in majority of LMIC especially in India. Effective use of the FHWs was considered instrumental in the provision of Primary health care (PHC) and the potency of FHW was recognized to be essential to achieve the targets of MDG. FHWs consists of a wide range of health workers such as CHWs, Mid-level care providers, Physician-assistants, Nurses, Doctors etc., who are most of the time the first level contact of the health system to the people, majorly engaged in provision of PHC and the services focusing on disease prevention and health promotion. Unlike the most of FHWs the CHWs are the group of FHWs whose potency is greatly explored and well documented since there conception in 1950's as barefoot doctors in china. FHWs by itself is a wide area of research and this review does not talk much about already well known areas in frontline health workers. The review is split in to two parts with first part talking about the theoretical perspectives in-terms of FHWs and second part talks about operational challenges. First part focuses much on other theoretical concepts in FHWs such as Task-shifting, Public-health nurses and mid-level care providers etc., which are not very much known, compared to their counter parts and majority of the times ignored. The second part of the review has its emphasis on the prime operational challenges which are faced by the FHWs.
By summing-up the majority of literature related to the different theoretical concepts in the area of FHW it reflects on the options available to provide efficient health care to the underserved populations and the challenges being faced while dealing with FHWs. It could be helpful in guiding the planning and implementation of sustainable, holistic and cost effective interventions to provide universal PHC.

Keywords: Frontline health workers, community health workers, primary health care, India

INTRODUCTION:

The frontline health workers (FHWs) are the health workforce that provide routine, essential and emergency medical services to the community and are often the individuals first line of contact to the health system. The FHW coalition defines FHWs as "those who are often based in the community and generally come from the community they serve playing a critical role in providing local context for proven health solutions and. They connect the patients and there families to the health systems and are often first and only link to health care for millions across the world, they are relatively inexpensive to train and support and provide lifesaving interventions[1]"FHWs play multiple roles as Community health workers(CHWs), health activists, health educators, nurses, mid-level health care providers, pharmacists & doctors etc. In the contemporary world the CHWs (In the form of ASHAs of India, Lady health workers in Pakistan, Community health agent in brazil etc.) form the majority of frontline health workforce and mostly the words CHW and FHW are used interchangeably. Though the words FHW & CHW sound similar the difference between FHW and CHW need to be noted. "Front line health workers are defined by service delivery" whereas Community health

workers in most of the cases are associated with health promotion & function as social activists and not necessarily play the role of providers of health care". In Indian context the Medical officers, Public-health nurses, Mid-level care providers, Nurses, ANMs, AWWs and ASHAs are the prime workforce falling under the category of FHWs.

Theoretical Perspectives:

Community health workers

The early historical origins of Community health worker programmes date back to early decades of 19th century where the concepts like Chinese barefoot doctor programme led to substantial improvements in health. In 1960's the health inequalities and the shortage of trained health workforce was more apparent in the developing countries, marking the obvious need for an alternative approach to provide health care during which, the barefoot doctor approach served as a guiding concept for development for several early CHW programmes in many developing countries including India[2].In India, issues like severe shortage of trained medical

professionals like doctors and nurses coupled with concentration of the professionally trained health work force in and around the urban areas deprived rural India from the basic primary health care, thus resulting in idea of establishing a cadre of frontline health workers providing basic health services. The origin of India's CHW programmes dates back to mid1970's when the idea of CHW strategies was experimented upon by several NGOs and voluntary organizations. CHW programmes like Comprehensive rural health project- Jamkhed, SERACH- Gadcharoli, SEWA in rural Gujarat etc. gave valuable inputs for several government led CHW programmes establishing a cadre of several kinds of front line healthworkers[3] such as Community health Volunteer, the village health guide, janswasthya rakshak, drug depot holder, malaria link worker, Trained birth Attendants, Anganwadi worker, Accredited social health activist etc.

The Alma Ata Conference of 1978 came up with idea of creating national community health worker programmes to cater to the health needs of underserved village communities and the CHW programmes were confined to promote the key principles of equity, intersectoral collaboration, community development, prevention and use of appropriate technologies (WHO 1998). The CHW combines the service function and the developmental/promotional function thus plays the role which can be neither be fulfilled by formal health systems nor by communities itself. Most importantly the community health workers act as bridge between community and the formal health services thus providing opportunities to improve effectiveness of both preventive and curative services[4].

Defining Community health workers:

WHO defined community health workers as "Community health workers should be the members of the community where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily part of it's organization, and have shorter training than professional workers[5]"

Witmer (1995) defines community health worker as "the community members who work almost exclusively in community settings, and serve as connectors between the health care consumers and providers thereby promoting health among the groups who traditionally lacked adequate health care. Being the one from the community the CHW can identify local problems, develop solutions and translate them in to practice thus, community health workers can respond creatively to the local needs[6]. Similar definitions of CHWs are given by APHA(American public health association), and walt (1989)[7]

Roles of Community health workers

Considering the various definitions given to the community health workers CHW acting as an intermediary between the communities and health systems is the predominant role performed by CHW. Other than that the community health worker plays a role in building the individual and community capacity by increasing health knowledge and self-sufficiency through the range of activities like health outreach, community education, informal counselling, social support and advocacy etc[7]. In Indian context the ASHAs are the key community health workers and are looked on as the bridge between community and health systems and as health activists who mobilize community towards health behaviour[8]

Nurses as FHW:

Nurses form one the most important health work force in the country with the different levels of qualifications ranging from ANMs, Staff Nurses, Public Health Nurses, specialist Nurses etc. The southern states of AP, Tamilnadu, Kerala and karnataka account for 63% of general nursing collages and has the nurse patient ratio which is more than the national average[9], whereas the northern states account for the minimum number of nursing college and personnel in-terms of health workforce .In the context of the Rural Government health services the Auxiliary Nurse Midwife (ANM) who works at the Subcentre level is the key field level health worker who interacts directly with the community particularly for family planning, maternal and child health care[10]. Public health nurse is considered as the highest position for nursing personal at district level in the public health system. The APHA defines a public health nursing as "a practice of promoting and protecting the health of populations using knowledge from nursing, social and public health sciences[11]" within the public health system in India the public health nurse is called as the district public health nurse (DPHN) is the senior most health worker at the district level. She leads the work of ANMs and their supervisors. The position of DPHN was created around 1962 to guide and supervise and monitor the performance of PHN personal in the district[8]. Even though DPHN is a senior position majority of posts of DPHN are vacant[12] or ill equipped to perform essential tasks[13]. Further issues such as un-equal distribution of health workforce across the country, primarily clinical oriented training of nurses, security, the issues of sexual harassment and gender based violence at the workplace still exist as the problems[9,14,15,16]which hinder the efficient utilization of extensive women health workforce which India has.

Mid-level care providers:

Mid-care providers are defined as "health providers who are not professionals but provide care in communities, and have less training and more restricted scope of practice than that of medical professionals. In contrast to community health workers they have formal certification and accreditation

through the country's licensing body and work generally in primary and community care[17]," mid-level providers are used with different names (such as clinical associates in south Africa & physician assistant in united states) across various countries to provide basic health care, In countries with high HIV burden Mid-level care providers proved to be as effective as physicians in providing HIV care as per quality standards[18] . The early origins of mid care providers in India can be traced back to pre-independent times when there was a separate cadre of medical professionals called as licentiate medical practiners who were later abolished. The serious shortage of Trained medical doctors at the PHC and Subcenter level made the government of India re-think its stand on the idea of Mid-care providers[19]. The NHP draft 2015, recognizes that one important element of expanding primary care from selective care to comprehensive care is the development of the cadre of mid-level health care providers and has come up with the idea that these cadre of health workers can be developed by introducing new courses or through skill building of graduates like AYUSH doctors, Pharmacists, nurses etc., to provide services at Subcentre level. Also BSc Community Health (BScCH) is considered as one of the prominent steps towards developing a cadre of mid-level where, thy are trained for 4years and are posted as rural community health officers being allowed to dispense drugs as per health programmes[20], however questions of quality of medications, unauthorized practise, and problems of recognition[21] surround the implementation of BScCH.

Task-Shifting*:*

The Global shortage of the professionally trained work force especially in the developing countries led to the raise of new concept called as task shifting. WHO defines task shifting as "the process of delegation where by the tasks are moved where appropriate to the less specialized health workers"[22]. It is felt that reorganizing this way by task shifting we can make more efficient use of the human resources which are currently available. Developed countries like united kingdom have practical experience with task shifting where the nurses are empowered to prescribe routine medications which was successful in both expanding and improving clinical outcomes, further countries like USA and Australia are successfully adopting task shifting from professional to non-professional community members in the management of chronic illness[22] proving task shifting to be one of the potential solutions for shortage of trained work force. However, it needs to be implemented in such a way that it improves overall quality of care and is not rated as a second level care, in the situation of acute shortage and immediate requirement in the states like chattisgarh the paramedics (mostly pharmacists) without any formal training in clinical care were appointed as medical officers at PHC level endangering the patients but are still continued because there was no one to fill the vacant posts[23]. WHO states that credentialing with quality assurance mechanisms such as licensing, certification, registration etc could be potentially

beneficial. ASHA certification programme through open school system which serves as a benchmark, for preferential selection of ASHAs in to ANM or paramedical courses[24] could possibly be looked on as one of the credentialing mechanisms for task shifting.

Operational challenges:

Majority of the programmes related to Front line health workers face the challenges related to inadequate training, Infrastructural issues, issues related to incentives/payments, monitoring and supervision issues, and issues related to supply of drugs etc, apart from these aspects the following are few other operational challenges being faced by the Front line health workers programmes.

Information and communication technologies in health:

Health information is considered as one of the key pillars of health systems and the usage of ICTs has revolutionized various dimensions of health care delivery. ICT facilities like E-health could be instrumental in improving the service delivery, capacity building of health care workers/professionals, and improving programme monitoring and supervision etc and tackle some the key challenges faced by the frontline health workers. Computerization of HMIS (Health management information system) provides a better tool for monitoring and supervision and for better data management [25] increasing mobile phone coverage has opened doors for mHealth approach to health by utilizing mobile phones and related content to provide health services. Already, mHealth solutions developed across various technologies like IVRS, Text SMS, 2G/3G videos etc are rolled out in the various parts of India to support CHW in key areas like self-learning/refresher training, patient monitoring, scheduling and task management, awareness and counselling etc[26]. Factors like high availability of mobile phones, potential for positive outcomes, low replication costs etc make the mhealth approach one of the ideal approaches for providing primary health care but the challenges like unclear long term results and benefits, poor evidence on standards, privacy, legal issues, lack of integration in to the health systems and research being limited to the pilot project and donor reporting[27] make the mhealth approach questionable bringing up the need of devising sustainable ways to utilize ICTs in health.

Multipurpose health worker Male:

The concept of Multipurpose health worker originated in 1974 for the delivery of preventive and promotive health care services to the community at the level of sub centre. The male MPHW mostly interacts with men in the community and is supervised by a male supervisor. They are primarily focussed with the control of communicable diseases like malaria, TB, leprosy, Water borne diseases and environmental sanitation etc. Also, as part of family welfare activities he works

towards the promotion of male sterilization, encouraging usage of condoms, prevention of HIV and STDs[16] . As per IPHS standards one of two MPWs (male & female) at subcenter and over 2,73000 MPHW Male needed to be provided for the projected population of 2010, . To meet this interim requirement GOI provided 100% support for engaging male health workers in 200 high malaria and kala azar endemic districts of 16 states. NRHM encouraged the states to recruit male MPHW as a conditionality for contractual second ANM under NRHM but most of the states were not able to recruit male MPHW's saying that male MPHW is a dying cadre, thereby overburdening available ANMs thus effecting the implementation of several programmes[28]. As of 2011 Rural health bulletin of MoHFW, Government of India the number of Health worker (Male) is short by 64%[12] .

Issues of Absenteeism, Accountability:

Absenteeism is defined as "chronic un excused absence from work which adversely effects health worker's productivity and undermines the quality of health services". Absenteeism is one of the frequent problems faced by the public health system of the country and around 40% of staff are absent at the level of PHC at any given time [29]. Studies indicate that absenteeism among medical officers range between 63.5% to 26.2% where as it is between 60.3% to 24% among nurses, considering both the number of vacant positions and absenteeism the percentage of doctor present at the assigned position ranges between 20.9% to 60.2% making the probability of doctor being present for the patient to be 1/5 times in low performing states like Bihar [30] which clearly translates into health inequities and low performance indicators. Considering the seriousness of the issue, methods to curb absenteeism seems essential in order to improve service provision and enhance accountability. Accountability in the health care setup is defined as the process by which health workers pursue the objectives of efficiency, quality and access to meet the interests of community/patient's interests or expectations [25].The NHP seeks to improve horizontal accountability by providing a greater role to for the local bodies to participate and encouraging community monitoring. It seeks to improve vertical accountability through better monitoring, grievance readdressal and evaluation[8].

Effective Approaches to Skill building:

The implementation of task shifting approach has led to the expansion of education and training to increase CHWs, mid-level care providers, and other FHWs. However, this successful implementation of task shifting needs the health workers to be properly trained and adequately informed bringing up the need for effective approaches for skill building. New approaches using technologies such like e-learning which combine the skill up gradation training with regular work had a positive impact in improving the quality of nursing care in countries like Kenya [31]. ASHA certification through national institute of open schooling could be

considered as one of the approaches to skill building. But, the questions of cost effectiveness, sustainability, and future opportunities to ASHAs undergoing this training do exist. Similarly for higher level medical professional such as AYUSH doctors working at PHC level their current level of training questions their competency to be the primary clinical provider [23], thereby making it essential to look out for efficient and effective ways of skill building

Recruiting and Retaining health workforce in rural areas:

India has acute shortage of professionally trained health workforce. As of 2009 the aggregate density of Doctors, nurses and midwives 2.08 per 1000 population which was lower than WHO's recommended density of 2.28, with states like Bihar and Jarkhand having severe shortage of health workers with density of less than 1 per 1000 population[32]. This shortage of health workforce is much severe, in terms of doctors who are at the density of 0.6 per 1000[32].

Considering this severe shortage of health professionals, recruiting and retaining health workers to work in public sector in the rural and underserved areas is one of the most significant challenges faced. Several measures were adopted to solve this problem such as most of the states offering higher incentives to the doctors serving in remote areas compared to that of urban areas, compulsory rural service bonds in exchange to subsidized government provided education, specific recruitment of candidates from underserved areas, bringing up new cadre of health workers like Mid-level care providers, temporary employment of physicians under various programmes, contracting out several PHC's to NGO's and purchasing services from gynaecologists to increase institutional deliveries etc[9], even though these measures are taken as for immediate need resilience of these measures is highly questionable.

CONCLUSION:

It could be seen that the major burden of the India's public health system rests on the shoulders of the frontline health workers who for the most of the time are ill paid, inadequately trained, overburdened with poor infrastructural facilities and coupled with the challenges mentioned above, limits their effectiveness. From 1970's itself though several programmes of this kind are initiated and reverted back still they are relapsing in one or other form reflecting the India's need for functional and efficient health workforce at community level, the raising certain research critiques that by instituting CHW programmes with minimal/poor institutional support reflects the governments motto to flee from its responsibility by stating that people's health is in people's hand. Thus there is need that the challenges faced in the implementation of these programmes are to be considered in order to come up with innovative efficient and sustainable ways to solve them making India's frontline health workforce more efficient.

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