Strengthening patient-centred care for control of hypertension in public health facilities in Kannur district, Kerala, India

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Background

In India, Non-Communicable Diseases (NCDs) are the leading cause of death, estimated to account for 63% of all deaths in 2016 (1). The country's public health system has been geared more towards management of communicable diseases. There remain considerable inadequacies in the delivery of NCD care services, both at the primary and secondary care level. Management of chronic diseases needs an integrated, comprehensive, patient-centred, and community-based strategy (2).

Patient-centred care is about putting the comprehensive needs of patients at the centre of health systems, and empowering people to have a more active role in their own health (3) and is an essential component of scalable treatment of hypertension (4); however, ensuring this in public health facilities has several challenges.

The state of Kerala located along the south-western coast of India has topped the health index report – 2018 released by National Institution for Transforming India (NITI) Aayog (5). However, the state has the lowest Epidemiological Transition Level (ETL) ratio of 0.16, indicating higher burden of NCDs compared to communicable diseases (6). On an average, one out of three adults in Kerala have hypertension. Hypertension awareness (44%), treatment (37%) and control (13%) levels are alarmingly low even in the relatively better educated population in the State (7).

Kannur, one of the districts in the state, has a population of more than 2.5 million. The prevalence of hypertension and diabetes mellitus among adult population (18 years and above) in Kannur are very high (47% and 40% respectively) compared to the state averages (35% and 25% respectively) (8). The public health system under the Kerala Health Services Department consists of one district hospital for tertiary care, one general hospital and seven taluk hospitals for secondary care, and 10 community health centres (CHCs) and 82 primary health centres (PHCs) for primary care (9). It is estimated that approximately 36% of rural and 31% of urban households seek non-hospitalised treatment from these public health facilities (10).

The district has a strong community level health workforce. Each PHC has about 3 to 6 subcentres attached depending on the population and each subcentre is staffed by field staffs - a male Junior Health Inspector (JHI) and a female Junior Public Health Nurse (JPHN). Under each subcentre, there are about 5 to 10 panchayat wards which are staffed by female Community Health Workers (CHWs) called as Accredited Social Health Activists (ASHAs).

This article discusses the challenges faced in ensuring patient-centred care in public health facilities of Kannur district, initiatives taken by the Kerala Government and the India Hypertension Management Initiative (IHMI) in 2018, lessons learnt and the way forward.

In the public health facilities, an NCD clinic is conducted on specific days in a week when known hypertensives visit on a monthly basis for clinical review and collection of medications. One of the

major challenges, is poor provider-beneficiary interaction times due to heavy patient loads. In Kerala, a government allopathic doctor serves an average population of 6,810 (11). In Kannur district, currently, nearly 40,000 hypertensive and diabetic patients visit NCD clinics every month in all the public health facilities (12). Consequently, a doctor barely spends a couple of minutes with each patient in the clinic (13). Adding to this, inconvenient OPD timings (9 AM to 1 PM) have been a barrier for the working male population in accessing regular care.

Training of health workers is mainly focused on communicable diseases and maternal and child health with less emphasis on NCDs. Therefore, they have limited knowledge and skills to offer services for NCDs (14). High turnover rates among the public health workforce further compromise patient-centred care. Attrition among contractual staffs are even worse as they work for a short period and leave their jobs, either for higher studies or private practice.

There are national and state level guidelines for managing hypertension, but very few public health providers are aware of it. Inconsistent and irregular supply of anti-hypertensive medications lead to frequent prescription changes in the public health facilities. In addition, often, several drugs with multiple dosages are prescribed causing inconvenience to patients and thereby reducing patient adherence. Other challenges acting as barriers for patient-centred care include lack of individual patient records and non-existent follow-up and defaulter retrieval mechanisms.

Interventions

Several recent initiatives taken by the Government of Kerala for improving the NCD program will go a long way in improving patient-centred care in public health facilities. Instructions have been given to increase the number of NCD clinic days in PHCs and CHCs if their NCD outpatients were more than 100 per clinic. Under Mission AARDRAM that aims at treating every patient with 'dignity' by creating a "People Friendly" health delivery system in the state, 11 PHCs have been transformed into Family Health Centres (FHCs) in Kannur district. Besides a daily NCD clinic, evening OPDs are also conducted here targeting working male populations. There is better infrastructure in the form of spacious wards, clean toilets and enhanced hygiene, and access to life-saving medicines at affordable cost for the public. In the next financial year 2019-20, 50 more PHCs will be converted to FHCs in the district (15).

Task-shifting to non-physician health workers (NPHWs) has been an effective model for managing infectious diseases and improving maternal and child health (16). To replicate similar models for NCD care, and to improve patient care, the Kerala government has issued an order clarifying roles and responsibilities of various health staffs in the NCD program. As per the order, staff nurses will give screening and counselling services at the PHC. Health Inspectors will generate and submit periodical reports. JHIs and JPHNs will run the NCD clinics at subcentres and bridge communication between PHCs and wards. ASHAs will assess the NCD risk factors in the population and mobilise them for screening. Medical officer will be the team leader, ensure smooth functioning of clinics at both subcentres and PHC and be responsible for diagnosis and appropriate treatment initiation. Indirectly, these efforts reduce the time taken for a patient from entry to exit in a health facility.

In order to increase accessibility and patient convenience of medical visits, NCD clinics are being conducted once- weekly at subcentres where blood pressure (BP) and random blood sugar are measured. The field staff have been instructed to ensure screening of all individuals 30 years and above in their jurisdiction for hypertension and diabetes and refer to higher centres as required.

The IHMI, a collaborative project of the Ministry of Health and Family Welfare, the State Government, Indian Council of Medical Research, World Health Organization, and Vital Strategies, was launched in Kerala in April 2018. The primary goal of this project is to reduce morbidity and mortality due to

cardiovascular diseases, by improving the control of high blood pressure. One of the main components of this initiative is patient-centred services to reduce the barriers to treatment adherence (17). This is sought to be achieved by providing standardized care, uninterrupted supply of drugs to ensure provision of monthly prescriptions, thereby reducing medical visits, use of once-daily treatment regimens, use of fewer tablets, improving access to blood pressure monitoring, and public education to increase awareness of the importance of control of blood pressure.

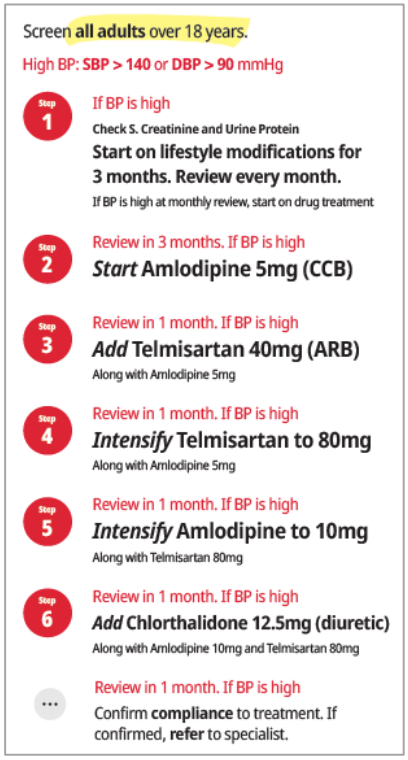

Figure 1. Hypertension Treatment Protocol

With support of IHMI, and based on the WHO HEARTS Technical Package, state-level experts in Kerala have developed a simple, standardized and evidenced-based protocol for treatment of hypertension using single dose drugs (Figure 1). These medications are dispensed free-of-cost to patients visiting the public health facilities. Various categories of staff have been trained as per their roles and responsibilities. For Medical Officers and Staff Nurses, the training focused on technical aspects like treatment protocol and standardized blood pressure measurement technique. Health Inspectors and Public Health Nurses (field staffs) were trained on screening, documentation, reporting and defaulter tracking mechanisms. At the community level, ASHAs were trained on assessing risk factors for NCDs and mobilising the high-risk patients.

In few facilities, patient flow from entry to exit has been streamlined by setting-up a pre-assessment area between out-patient registration counter and consultation room. An IHMI team comprising of a Cardiovascular Health Officer (medical) and Senior Treatment Supervisors (non-medical) works in close coordination with the government system and ensures capacity building of various categories of staffs, availability of logistics, supportive supervision, development of quarterly and annual reports to determine control rates and help in retrieving defaulters. During an institutional visit, a supportive supervision checklist is used to assess the screening and BP measurement techniques, treatment outcomes, patient recording and reporting system, service delivery, drug availability and other facilities in the institution. At the end of the visit, the feedback is shared with the in-charge Medical Officer and district officials for corrective measures.

In order to ensure the drugs procured out of grants reach the needy public through a transparent process and track all activities from procurement to distribution, the Government launched the 'Drug Distribution Management System (DDMS)' software in 2017. Adding to this, the IHMI team keeps a close watch and ensures availability of protocol recommended drugs in the institutions through on-going advocacy with the district and state Government officials.

Community health workers play a crucial role in ensuring continuum of care. The district officials and IHMI team in Kannur are working on system level approaches to enable easy identification and follow-up of the defaulters on a routine basis by the field workers. In few facilities, during weekly meetings of field workers, subcentre-wise defaulter line-list are being shared with concerned field worker for mobilization and reviewed in the consecutive weeks.

Lessons learnt

The use of a standardized protocol has increased the ease of logistics in terms of drug inventory, drug forecasting and quality monitoring. There has been no shortage of anti-hypertensive drugs across 97 primary care facilities in Kannur district since the launch of DDMS.

Setting-up of NCD pre-assessment area has reduced waiting time and streamlined the movement of out-patients within facilities. For every patient, in this area, anthropometric measurements are taken, blood pressure and glucose are measured instantly using digital monitors, patient education sessions are conducted and counselling on life-style modification is provided. However, in nearly 43% of PHCs and CHCs, high outpatient loads during NCD days (>100 patients/day) still remains a limiting factor, despite the increase in number of NCD days per week (12).

To tackle high attrition rates of health staff, and to ensure quality of care, continuous mentoring support at the institution level and periodical refresher trainings at the district/sub-district level are essential. Involvement of ASHAs to improve treatment adherence and defaulter retrieval is challenging as they lack motivation and are already over-burdened with several public health programs. As Gopalan et al mentioned, those ASHAs who had feelings of more community and system-level recognition, had higher levels of earning, a sense of social responsibility and a feeling of self-efficacy relating to their responsibilities (18). Therefore, effective functioning of CHWs needs to be addressed in a broader aspect than just building their capacities.

Next steps

Performance-based incentives play an important role in increasing motivation levels of ASHAs. The state government has already proposed additional incentives for carrying out NCD risk assessment community surveys and mobilisation of defaulters; these need to be implemented rigorously.

Currently, majority of patients visit PHCs and CHCs for routine NCD care. Decentralization of care to subcentres can increase accessibility, convenience and treatment adherence and should be considered by the State Government. Decentralisation also has the potential to reduce costs for patients as they will be able to collect prescribed medications from a centre located close to their residences. It will also reduce the outpatient loads at higher facilities and thereby improve the quality of care. Eventually, these patient-centred approaches can potentially improve population-level blood pressure control rates.

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