Chapter for the book series titled IIPV3EBS16\_G20 Futuristic Trends in Pharmacy and Nursing under IIP

Reference: Editor: **Dr. Prof. Rajamanickam Rajkumar. ID IIPER 1655445444**

**Title:**

 **Lead Role in Reducing the Burden of Non-Communicable Diseases in Tamil Nadu - The potentials of Nurses** .

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**Abstract:**

**Introduction:** The prevention and control of Non-Communicable Diseases (NCDs) is of highest priority as these contribute to majority of deaths in India. The incidence and projected rise of non-communicable diseases (NCDs) are a significant global public health threat. Nurses as health educators are well positioned to support health promotion and prevention efforts. The intent was to understand nurses' interest, challenges and enabling factors in carrying out this important role in addressing the NCD crisis under the “Makkalai Thedi Maruthuvam” - Medicine in search of People - MTM scheme, of the Govt, of Tamil Nadu.,

**Aim:** To present the nurses potential as a lead role in reducing the burden of the non -communicable diseases in Tamil Nadu.

**Methods:**A simple random survey of 52 nurses in Kanchipuram district was conducted to better understand how nurses perceive their role in addressing risk factors associated with NCDs, as well as, the types of supports required in order to facilitate this work. The study also explores nurses' changing views of the profession and their practice environment. The survey was administered via telephone and face-to-face interviews .

**Conclusion:** Nurses are interested in spending more time addressing NCD prevention, but workload, time constraints and their perception towards the job of nursing hinder them from achieving their potential. Unhealthy lifestyle choices are a risk factor for NCDs; through awareness and education, positive behaviour change is possible. Research has demonstrated that nurses are effective at supporting individuals to make behaviour change, administering disease management programme and enabling self-care as well as self-management. Practice environment issues that prevent nurses from fully reaching their potential in addressing the NCD crisis need to be addressed.

**Keywords:** Nurses potential, NCDs, Makkalai Thedi Maruthuvam MTMscheme, Challenges.

 **Introduction**

The prevention and control of Non-Communicable Diseases (NCDs) is of highest priority as these contribute to majority of deaths in India. The four main types of non- communicable diseases include cardiovascular diseases (heart attacks and stroke), cancers, chronic respiratory diseases (chronic obstructive pulmonary disease and asthma) and diabetes. The rise of NCD’s has been driven primarily by four major risk factors; tobacco use, physical inactivity, the harmful use of alcohol, unhealthy diet and lifestyle .Therefore ,as a midlevel health care provider ,their major responsibility is to identify and screen various Non-communicable diseases so that they can provide primary health care, make appropriate referrals, educate and counsel the community about preventive measures, healthy diet and life style. In 2019, according to WAccording to WHO, Noncommunicable diseases (NCDs) kill 41 million people each year, equivalent to 71% of all deaths globally. Each year, more than 15 million people die from NCD between the ages of 30 and 69 years; 85% of these “premature” deaths occur in low and middle-income countries. Cardiovascular diseases account for most NCD deaths, or 17.9 million people annually, followed by cancers 9.3 million), respiratory diseases (4.1 million), and diabetes (1.5 million). These four groups of diseases account for over 80% of all premature NCD deaths.

Of the 55 million global deaths in 2019, 41 million were due to NCDs. And coming to Premature NCD mortality ,47% of NCD deaths in low- and middle-income countries in 2019 occurred before the age of 70. 80% Risk factors of premature heart disease, stroke and diabetes can be prevented by behaviour ,lifestyle modification and health education.

**“Makkalai Thedi Maruthuvam” - MTM scheme - “Medicine in search of People”**

This is a new **Makkalai Thedi Maruthuvam Scheme 2023** launched by the Tamil Nadu state government, through this scheme the citizens of Tamil Nadu state will be provided health facilities at home. About 1172 health sub-centers, 189 primary health centres and security community health centres have been covered under this scheme. Through this **Makkalai Thedi Maruthuvam Scheme**, medicines or all other health-related services will be delivered door-to-door to all the beneficiaries who are unable to come to the primary health centre, private or government health centre. In this way, the diseases spread through infection will also be reduced and the patient will get the benefit of all the convenient health facilities.

**The Objective of MTM scheme**

The main objective of this Tamil Nadu **Makkalai Thedi Maruthuvam Scheme** is to reach the unwell citizens of the state health care facilities at their homes. Through this scheme, all health and medical services will be delivered to the homes of the patients. To bring development in all the health facilities delivered through this scheme, the government has covered 1172 health sub centres, 189 primary health centers and 50 community health centres. This plan is also a great measure to avoid other communicable diseases like Covid-19. Through this scheme, the infected person can treat himself without coming in contact with anyone.

**Implementation of MTM scheme**

 Under the Tamil Nadu **Makkalai Thedi Maruthuvam Scheme**, Tamil Nadu Chief Minister Office takes administrative responsibilities, for sending medicines to the residents of the patient suffering from hypertension and diabetes. Along with this, special attention will be given to those patients who are senior citizens and who require physiotherapy. The Chief Minister’s Office has covered about 1172 health self-centres, as well as 189 Primary Health Centers and Suraksha Community Health Centers for this scheme.

#### ****Budget****

 Under the **Makkalai Thedi Maruthuvam Scheme 2023**, the Tamil Nadu government has set a budget of Rs 258 crore. The benefit of this scheme will be given to 1 crore beneficiaries out of 300,000 families available in the state. This scheme has been made to provide door-to-door health facilities among the people of the state who are above 45 years of age. Under the DoorStep Health Care Scheme, door-to-door checkups and medicines will be provided to the people.

### **Benefits & Features**

* **Makkalai Thedi Maruthuvam Scheme** will help in improving the health care system to the next level through 2023.
* It will support delivery of primary health at the doorsteps of the people and bring out harmful facts related to health.
* The main objective of this scheme is to provide health facilities to all the citizens of Tamil Nadu.
* Chief Minister Stalin has started the **Makkalai Thedi Maruthuvam Scheme** in Chennai and Coimbatore as well as in 7 other districts.
* Beneficiaries above 45 years of age will be covered through this scheme.
* Special attention has been given to extend the benefit of this scheme to all the infected patients of Tamil Nadu.
* By this Scheme, at least one crore people of 30 lakh families of Tamil Nadu will be benefited by this scheme.
* Through this Scheme patient care will be made available at your doorstep by **women public health workers, women health volunteers, physiotherapists and nurses.**
* The government has allocated a budget of Rs 258 crore for the successful operation of this scheme.
* Under this scheme, a test will be provided to **detect non-communicable diseases,** through which they can know about their non-communicable diseases.
* All those interested applicants who want to get benefits under this scheme can apply for this scheme.
* This scheme has been launched in seven states namely- Thanjavur, Tirunelveli, Madurai, Trichy, Coimbatore, Chennai and Salem .

**Role of staff Nurses in MTM Clinic**

 1.The **MTM Staff Nurse** should be placed in the **MTM Clinic** at a suitable place within the PHC/ UPHC/ GH/ GMCH with good access and visibility for the public to avail services.

 2.When screening the target population, the MTM Staff Nurse should focus on screening

* All **aged 18 years and above for Hypertension**, **Diabetes** for all Men and Women aged **30 years** and **above**.
* Do routine screening for Hypertension, Diabetes for all Men and Women aged 30 years and above.
* Do screening for **all** **Women for Cervical and Breast Cancer Screening.**

 3.Each MTM Staff Nurse should screen a **minimum of 10 Men and 10 Women for Hypertension and Diabetes per day** in PHC/ UPHCs and a **minimum of 20 men and women for Hypertension and Diabetes per day** in GH/ GMCHs.

To do **Cervical and Breast cancer screening for at least 5 women in PHCs**/ UPHCs and **10 women in GH/ GMCHs per day.**

 4. One of the key functions of the MTM staff nurse is to provide **counselling on Lifestyle Modifications (LSM)** and to improve the health-seeking behavior of the general public.

 5.In addition to the NCD screening procedures, the MTM staff nurse would also be trained to carry out the **“NCD program-related laboratory procedures”** to ensure continuity of lab services in the absence of the Lab technician; she should also carry out **ECG procedures for NCD patients as per the protocol**. MTM Staff Nurse should cross check the data in Lab registers with OP register, so that none of the Screened patients get missed.

 6.The MTM Staff Nurse shall also **completely take up the responsibility of follow-up of the screened positive beneficiaries in Coordination with WHV, MLHP, VHNs, ANMs, HI and other field staff,** etc., for this purpose. It is very important to ensure continuity of services for the public and continuum of care for the patients for achieving the desired outcome.

 7. The MTM Staff Nurse should follow up the HT/DM patients referred by DMS/DME institutions for providing MTM services in coordination with the WHV/MLHP.

 8.The MTM Staff Nurse should also **follow up** with the field staff on the patients with **uncontrolled HT/DM including complications**.

 9.The MTM Staff Nurse at Institution level **should monitor the Private patients adding on to the MTM Scheme** and have proper Line List of patients who shift treatment from Private to Government Institutions and the Line List should be shared with the concerned WHV/MLHP **to ensure proper continuum of MTM services**.

 10. The MTM Staff Nurse in DMS institutions should also **perform community-based MTM services** in addition to facility-based services.

 11. The MTM staff Nurse **shall keep the track on the availability of reagents, drugs, and equipment status** under the MTM scheme in coordination with the Medical officer, Pharmacist and Lab Technician and take action to avoid shortage or suspension of services.

 12.The MTM staff nurse shall enter the details of NCD screening, treatment and follow-up of the beneficiaries into the prescribed online /offline IT applications and any other data required under the programme needs. The Staff Nurse **should ensure digital/online conversion of the manual data.**

* The MTM Staff Nurse also collate and compile the MTM data on a daily basis and upload the same into the **MTM portal.**

 13.The MTM staff Nurse shall ensure all the screened positive individuals’ details are linked with **Population Health Registry (PHR)**.

 14.On a daily basis, the **PHC level MTM Nodal officer should monitor the daily performance of MTM Staff Nurse & WHV** in terms of daily target for screening versus actual screening by WHV, target drug dispensing versus actual drugs dispensed.

 15.The MTM Staff Nurse should **conduct meeting for at least 5 Patient Support Groups (PSG) per month** for improving NCD control rates in the community.

 16.The MTM Staff Nurses should attend NCD training programs conducted from time to time both at the District and state levels for **knowledge and skill up gradation.**

 17.The MTM Staff Nurse would remain the most important liaising staff with the field team of MTM for the **‘Home-based interventions’.**

 18.The MTM Staff Nurse shall sensitize HT/DM patients for **Home-based delivery of drugs** that it will be supplied at their **doorsteps by the MTM Women Health Volunteer** and the patients shall be informed to report at the health facility for **assessment by the PHC Medical Officer at the end of two months.**

**Role of Mid Level Hdalth Provider (MLHP) at Health Sub Cdntre - HSC level**

1.The MLHP should provide proper and routine training to WHVs.

 2.The MLHP is responsible for NCD screening at HSC level and **should at least screen a minimum of 10 individuals per day.**

 3.The MLHP **will hand over the drug packages** under MTM to the **WHV for distribution.**

 4.The MLHP should **orient WHVs about the color-coded indication and segregation of drugs in the paper cover.**

 5.The MLHP should always maintain Referral-in and Referral-out Registers and ensure proper follow-up of the same

 6. Monitors the daily and weekly performance of WHV and reports to the SHN.

 7. The MLHP is responsible for daily reporting in all portals (UHC IT, AB Portal, MTM portals.).

**Role of Woman Health Volunteers (WHV)**

1.The Roles of WHV include **Home based screening**, referring patients to PHC when required, follow up patients and distributing drugs to the linelisted patients (**above 45 years of age and individuals with restricted mobility)** at their households as per the Fixed Tour Programme.

 2. The WHV should carry electronic BP apparatus, Glucometer, Strips, Lancets, WHV MTM card, Packaged Drugs to deliver at households, ID card, IEC materials, BMW disposal boxes, Thermal screening and Pulse Oximeter in a branded jute bag provided.

 3. The WHV should have a Unit/ Sector/ HSC-wise **NCD line list.**

4. WHV should List/ enumerate all households in the HSC assigned and use a **family folder per household** using the prescribed family folder @ one per household.

5.WHV should refer individuals with BP & RBS levels above normal values during screening to PHC and should subsequently monitor & follow-up on their final status.

 6. The WHV should not change a patient’s drug prescription in terms of quantity, or the drugs prescribed since only the Medical Officer is authorized to do so.

 7. The WHV should not deliver drugs to family members i.e., spouse, parent, or child in the absence of the patient.

 8. Drugs should be provided to the patient at their household only if the patient’s BP/ Sugar levels are under control.

 9. The WHV shall also provide targeted IEC intervention at the Households they visit.

 10. The WHV will also inform and orient the beneficiaries about seeking assistance anytime they might need it through the **e-sanjeevani teleconsultation service.**

**Challenges**

Nurses in Medication Therapy Management (MTMt) for Non-Communicable Diseases (NCD) schemes often face challenges such as managing large patient caseloads, ensuring effective communication with patients, addressing medication adherence issues, and staying up-to-date with evolving treatment guidelines. Additionally, navigating electronic health records and coordinating with multiple healthcare providers can also be demanding.

**Ways to enhance the performance**

To enhance the Medication Therapy Management (MTM) scheme for Non-Communicable Diseases (NCDs) at the community level, staff nurses should do

 1. Patient Education 2. Personalized Care Plans

3. Regular Follow-ups 4. Adherence Support Nurse

 5. Medication Reviews 6. Collaboration with Providers

 7. Telehealth Solutions 8. Digital Tools

 9. Cultural Sensitivity 10. Continuous Training

 11. Outcome Measurement12. Feedback Loop Establishing

 By implementing these strategies, staff nurses can contribute to a more effective and patient-centered MTM scheme for NCDs at the community level.

**Conclusion**

 In closing, nurses in Tamil Nadu are leading the way in combatting non-communicable diseases through their pioneering efforts. As navigators of holistic care, vanguards of health promotion, early detectives, collaborative care orchestrators, nurturers of self-empowerment, and advocates for change, nurses are reshaping the narrative surrounding NCDs. Their innovative and patient-centered approach is transforming healthcare delivery, improving outcomes, and paving the path towards a healthier Tamil Nadu.

**Acknowledgement**

First and foremost, praises and thanks to the God, the Almighty, for His showers of blessings throughout my research work to complete the research successfully.

 I would like to express my deep and sincere gratitude to my research guide, Prof .Dr.Rajamanickam Rajkumar, MD, PhD for giving me the opportunity to do research and providing invaluable guidance throughout the research. I would also like to thank Prof. Dr.K.Shankar ,MD ,HOD, Dept of Community Medicine, MMCH &RI ,all the faculties of my Department, my Senior postgraduates , MTM Staff Nurse Sowmiya and last but not least my Co-pgs ,helped me to carry out the research and to present the paper as clearly as possible.

 I am extending my heartfelt thanks to my Lovable Husband and my Entire family for their acceptance and patience during the discussion I had with him on research work and paper preparation.

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