

Nonalcoholic Fatty Liver Disease: Role of Medical Colleges in its Prevention and Control

NAFLD stands for Nonalcoholic Fatty Liver Disease (NAFLD) and it is characterized by the presence of $\geq 5\%$ of abnormal accumulation of fat in the liver in the absence of secondary causes of fatty liver, such as harmful alcohol use, viral hepatitis, or medications. It is a serious health concern as it encompasses a spectrum of liver abnormalities, from a simple nonalcoholic fatty liver (NAFL, simple fatty liver disease) to fibrosis, cirrhosis, and liver cancer.^[1] Globally, NAFLD is a most prevalent liver disease affecting 2 billion population and its prevalence is gradually increasing. The global prevalence of this silent epidemic is currently estimated to be 24% with highest rates are reported from South America and the Middle East, followed by Asia, United States, and Europe.^[2,3] The prevalence of NAFLD in India varies from 9% to 32%.^[4]

Similar to other noncommunicable diseases (NCDs), the risk of NAFLD is high among overweight or obese, diabetics or prediabetic population, and the most common cause of death in patients with NAFLD is cardiovascular disease. The cases of NAFLDs are expected to grow in coming decades which could lead to the compromised health systems, policies, and socioeconomic developments. Moreover, in the absence of specific treatment of NAFLD, focus on prevention strategies becomes quintessential to reduce NAFLD. Therefore, the Government of India has recently integrated the NAFLD in ongoing National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases, and Stroke (NPCDCS) program.

Medical college (MC) plays an important role in fighting against NAFLD. MCs are instrumental in providing quality health care to the community, training health cadre (doctors and allied staff), and generating evidence to provide inputs in policy decisions^[5] [Figure 1].

Key component against NCDs is building a sufficient capacity at national level for: (1) Implementing effective strategies for NCD prevention and control and (2) detecting and intervening in outbreaks of risk factors combining regional surveillance data on NCDs. MC can play a crucial role in the following domains and contribute in winning a battle against NCDs including NAFLD:

1. Implementation of the program
2. Clinical care
3. Teaching and Training
4. Investment in innovative methods for health promotion
5. Engage in multidisciplinary collaborative research in NAFLD.

For implementation of the program, MC in collaboration with state government can facilitate the implementation of NAFLD operational guideline with NPCDCS. MC can support in development and dissemination of State specific customized guidelines for effective implementation of the program. They can also help in training human resources, strengthening documentation of NAFLD specific indicators, supportive supervision and overall quality improvement of NAFLD at field level as they are providing in other national health programmes such as National Aids Control Program, National Tuberculosis Elimination Program.

For providing quality clinical care to the patients, MC is the referral center for the peripheral. In context of NAFLD, consultants in departments of medicine, endocrinology, gastroenterology, hepatology, and community and family medicine can be oriented about the program and operational guideline. Few MCs in each state can be identified as nodal center for NAFLD management in the respective states. A panel of experts can be part of state task force and can develop evidence-based treatment protocols. The screening for NAFLD can be integrated in the existing screening OPD's/ NCD/Medicine clinic. Finally, these institutes can be act as a telemedicine center for guiding consultants/medical officers and supervision of NAFLD patients in the remote rural areas of India.

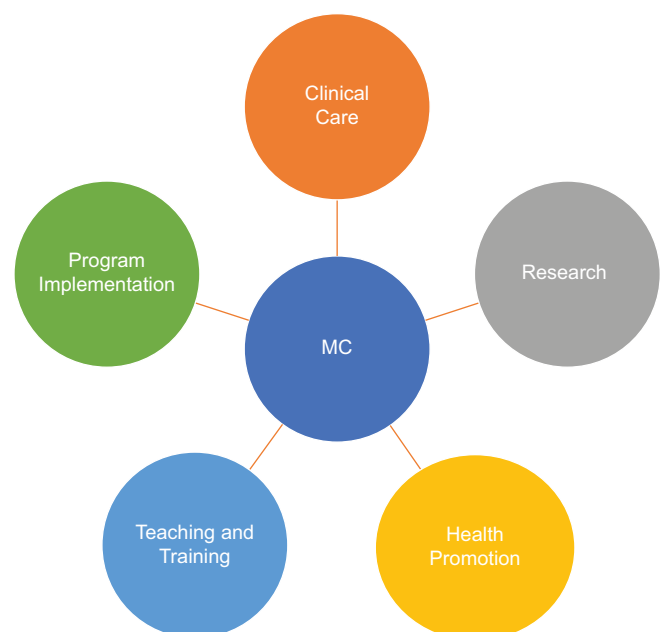


Figure 1: Role of medical college

With reference to teaching and training, present medical and nursing curriculum does not adequately cover prevention and control of NCDs. Few MCs in every state can act as a resource center for teaching and training. There is a need to develop specific approach and strategies to prevent NCDs into public health and clinical courses¹. A curriculum framework contextualized to the local setting should be developed by incorporating following domains: Identification of necessary core competencies for NAFLD, understanding of global best practices, adaptation of globally accepted teaching models on smoking cessation, physical activity, diet, and nutrition could support in prevention of NFLD cases. As a resource center, few MCs can provide training of medical officers, program managers, and other health-care workers involved in NCD program across the state working at secondary and primary care level through training workshops at the national, state, and regional level.

Health promotion is one of the key components of preventive strategies to tackle the silent epidemic of NAFLD. The behavior associated with NCDs risk factors such as overweight/obesity, physical inactivity, smoking and alcohol drinking are common in young people. The younger age group are often targeted by companies advertising unhealthy food, tobacco or alcohol use. Hence, engaging youth at school, college, and workplace in fight against NAFLD is critical. Health promotion strategies can be integrated in ongoing school health program which is being supported by MC in their respective field practice area. In supervision of faculty at the MC, Information Education and Counseling activities can be organized in colleges and workplaces. Teachers and students can be trained and engaged in health promotion through street plays, debates, and health talks.

Evidence synthesis is important for clinical and policy decision-making. The different departments at the MC can engage in multidisciplinary and multicentric research and develop evidence-based strategies to prevent and treat NAFLD. In addition, NAFLD can be promoted as a research topic among residents and research scholars.

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Conflicts of interest

There are no conflicts of interest.

Bhola Nath, Ankita Kankaria, Ranjeeta Kumari¹, Umesh Kapil²

Department of Community and Family Medicine, AIIMS, Bathinda, Punjab,
¹Department of Community and Family Medicine, AIIMS, Rishikesh,
Uttarakhand, ²Department of Epidemiology and Clinical Research, Institute of
Liver and Biliary Sciences, New Delhi, India

Address for correspondence: Dr. Ranjeeta Kumari,
Department of Community and Family Medicine, AIIMS, Rishikesh,
Uttarakhand, India.
E-mail: rkaiims2012@gmail.com

REFERENCES

1. Younossi ZM, Koenig AB, Abdelatif D, Fazel Y, Henry L, Wymer M. Global epidemiology of nonalcoholic fatty liver disease-meta-analytic assessment of prevalence, incidence, and outcomes. *Hepatology* 2016;64:73-84.
2. Younossi Z, Anstee QM, Marietti M, Hardy T, Henry L, Eslam M, *et al.* Global burden of NAFLD and NASH: Trends, predictions, risk factors and prevention. *Nat Rev Gastroenterol Hepatol* 2018;15:11-20.
3. Younossi ZM, Golabi P, de Avila L, Paik JM, Srishord M, Fukui N, *et al.* The global epidemiology of NAFLD and NASH in patients with type 2 diabetes: A systematic review and meta-analysis. *J Hepatol* 2019;71:793-801.
4. Duseja A, Najmy S, Sachdev S, Pal A, Sharma RR, Marwah N, *et al.* High prevalence of non-alcoholic fatty liver disease among healthy male blood donors of urban India. *JGH Open* 2019;3:133-9.
5. Pati S, Sinha R, Mahapatra P. Non-communicable disease risk reduction teaching in India: A curricular landscape. *Front Public Health* 2019;7:133.

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