Letters to the Editor

Gestational Diabetes Mellitus Training: A Well-grounded Approach for Safeguarding Two Generations

Sir,

Certificate course gestational diabetes mellitus (GDM), training program in gestational diabetes.

Diabetes is one of the major medical disorders complicating pregnancy, and it is associated with several risks to unborn child, which can be prevented by early detection and appropriate treatment of maternal hyperglycemia.\(^1\) International Diabetes Federation (IDF) estimated that 20.9 million women suffered from some form of hyperglycemia during pregnancy.\(^1\) In India, it has been estimated that nearly 4 million women had GDM in 2015.\(^2\) Providing screening and care to mothers at risk is therefore likely to have multigenerational impact.

Unfortunately, missed and delayed diagnosis of GDM is common, particularly in low- and middle-income countries (LMICs) like India. The frequently cited reasons are lack of awareness among patients and health-care providers, paucity of facilities, and shortage of medical staff.\(^3\) The multiplicity of screening and diagnostic guidelines also adds to the confusion. In a study conducted all over India, it was found that fewer than 50% of health-care professionals correctly followed any of the accepted screening and diagnostic criteria for GDM.\(^3\) Improving awareness of GDM and its management among health-care professionals is, therefore, imperative to reduce morbidity.

In 2013, the Public Health Foundation of India, Delhi, in partnership with Dr. Mohan’s Diabetes Education Academy, Chennai, launched a National Capacity Building Programme, titled certificate course in GDM (CCGDM), targeting Primary Care Providers (PCPs) across the country along with key stakeholders (as found in Tables 1 and 2).

The main objective being enhancement of knowledge, skills, and core competencies of all doctors who are involved in the diagnosis and management of GDM and build a network to update these doctors with the latest advancements in the field. This contact training program is conducted once in a month for 4 consecutive months on a weekend (As found in Figure 1).

CCGDM Course has been recognized by the IDF for a duration of 2 years (2015–2016), and South Asian Federation of Endocrine Societies for a duration of 6 years (2014–2019). Huge participation by postgraduate physicians (52%) is a testament to the necessity and requirement of such capacity building initiatives. Training is delivered to small groups (trainer-to-participant ratio 2:15 approx.) through didactic lectures. Finally, an organic referral linkage is established, creating a potential network for implementation research.

![Figure 1: Modules in certificate course in gestational diabetes mellitus course](image)

| Table 1: Key stakeholders |
|---------------------------|
| Academic partner-develop the course content |
| National experts-leading endocrinologists/diabetologists and OBGYs-vet the curriculum developed by academic partner |
| Regional faculty-endocrinologists/diabetologists and OBGYs conduct the trainings |
| Observers-public health professionals- monitor the training session to ensure quality of the course |
| Participants-PCPs and OBGYs |

With major educational grant from industry, participants pay a moderate fee which ensures their commitment

PCPs: Primary care providers, OBGYs: Obstetrics and gynecology

| Table 2: Certificate Course in Gestational Diabetes Mellitus cycles details |
|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Date of launch           | Cycle I                  | Cycle II                  | Cycle III                 | Cycle IV                  |
| State/UT                 | 25, 2013                 | 24, 2014                  | 26, 2015                  | 21, 2016                  |
| Number of centers        | 55                       | 40                        | 20                        | 20                        |
| National experts         | 15                       | 15                        | 14                        | 15                        |
| Regional faculty         | 110                      | 80                        | 40                        | 40                        |
| Observers                | 25                       | 20                        | 22                        | 22                        |
| Participants             | 1465                     | 928                       | 364                       | 417                       |

\(^{1}\) International Diabetes Federation (2020) \(^{2}\) International Diabetes Federation (2020) \(^{3}\) World Health Organization (2020)
Approximately 3500 PCPs have been trained. This program had been adopted by various state governments (Gujarat, Madhya Pradesh, and Meghalaya) under National Health Mission. Mean clinical experience of the doctors was 10 years. Government sector doctors represented 39% of the participants. Knowledge improvement score of doctors was 1.6 unit increase in pre- and post-test conducted before and after the sessions. Pass percentages have consistently been more than 90% during the past 4 cycles. Participants reported a substantial increase in knowledge at end line evaluation and increased confidence in the management of diabetes, and they gained confidence about selection, planning, and customized administration of insulin regimens and other drugs to their patients as per requirements.

We believe that CCGDM model is a robust approach for emulation across LMICs as it could help build the capacity of PCPs in GDM management and could also be a model for several other chronic diseases.

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Ranjit Unnikrishnan, Suganthi Jaganathan, Pallavi Wadhwani, Sandeep Bhalla, Pushkar Kumar, Sourabh Sinha, Neerja Bhalla, Padmalatha Venkatram, Kusagradhi Ghosh, Ambrish Mittal, Dorairaj Prabhakaran, Nikhil Tandon, Viswanathan Mohan, Uma Ram

Dr. Mohan’s Diabetes Specialities Centre, Seethapathy Clinic and Hospital, Chennai, Tamil Nadu. 1 Training Division, Public Health Foundation of India, 2 Department of Obstetrics and Gynecology, All India Institute of Medical Sciences, New Delhi, 3 Department of Obstetrics and Gynecology, Rangadore Memorial Hospital, Bengaluru, Karnataka, 4 Fetal Care Centre, Kolkata, West Bengal, 5 Division of Endocrinology and Diabetes, Gurgaon, Haryana, 6 Department of Endocrinology, All India Institute of Medical Sciences, New Delhi, 7 Department of Obstetrics and Gynecology, Seethapathy Clinic and Hospital, Chennai, Tamil Nadu, India

**Address for correspondence:**
Dr. Sandeep Bhalla,
Public Health Foundation of India, Plot No. 47, Sector 44, Gurgaon, Haryana, India.
E-mail: sandeep.bhalla@phfi.org

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