

# Exploring the Challenges, Facilitators and Needs of Dietitians in Delivering Diabetes Prevention Interventions to Women with Gestational Diabetes Mellitus on Malaysian Healthcare

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## ABSTRACT

Pregnant women who develop gestational diabetes mellitus (GDM) have to adopt healthy behaviour changes to prevent future diabetes. Certified dietitians are responsible to deliver Medical Nutrition Therapy (MNT) in assisting the women's dietary modification. In Malaysia, currently, the services of in-house dietitians are not available for both primary care clinics and hospitals. Due to limited manpower, dietitians face challenges in meeting with the increasing referral of GDM cases. Previous studies have explored the challenges and facilitators of the dietitians to deliver the MNT to GDM women, however, limited studies have been undertaken to explore this issue in Malaysia. This study explores the experiences of dietitians in public health clinics and hospitals, specifically the factors which influence their management, and the challenges faced in the management and prevention of diabetes among GDM women. An iterative qualitative study was conducted at four primary care clinics and two hospitals with a resident dietitian. Dietitians with a minimum of six (6) months of in-house work experience were identified and invited as respondents. Consents were attained prior to the virtually conducted in-depth interview and focus group discussions. The topic guide was derived using the COM-B framework. COM-B model of behaviour refers to capability (C), opportunity (O), and motivation (M) as three main factors that can result in a change of behaviour (B). In this study, the interviews were recorded, transcribed verbatim and analysed using thematic analysis. The transcripts were coded inductively and later collated into categories based on their similar meaning and concepts. Disagreements on certain codes were solved by re-examining the meaning of the codes by the team over several meetings. A total of twelve (12) dietitians were interviewed. The data analysis on dietitians' experience revealed that the dietitians shared four (4) main points, namely: 1) variable methods of counselling delivery were utilised to women with GDM between hospital and clinic-based (individual vs group consultations) 2) aiming to achieve optimal glucose control during GDM vs preventing diabetes; 3) using various digital and visual tools and 4) patients' compliance towards dietetic management. With respect to challenges, dietitians revealed that they faced three (3) main challenges specifically from the COVID-19 pandemic; 1) the need to adhere to social distancing (shorter consultation time, limited patients per session), 2) patient factors (education level, language barrier), and 3) lack of human and financial resources (budget constraints, limited dietitians, and facilities for consultations). In contrast, COVID-19 pandemic phenomena created facilitating conditions at certain sites in terms of increase in virtual classes, use of online visual tools and reduced time spent

to settle management related matters. Consequently, to deliver the service more effectively, the dietitians also expressed the need for more effective technology-based tools such as online-based consulting platforms (websites, mobile applications) and downloadable visual tools. To conclude, it was found that dietitians mainly focussed their effort to optimize maternal glycemia rather than the prevention of diabetes. They face challenges in delivering their services effectively during the pandemic with the need to adhere to social distancing, limitations in human and financial resources. With the increased use of virtual services, dieticians expressed the need to be equipped with advanced web-based technologies to enhance their services. The outcome of this study acts as a needs assessment which will feed into larger-scale research to develop a digitalized diabetes prevention intervention tool serving as a needs assessment in the development of a support tool in the form of a mobile application. The tool will serve to enhance the service given to women with GDM but also improve the service provided by healthcare providers including dietitians to reduce risks of future diabetes.

**Keywords:** gestational diabetes mellitus, medical nutrition therapy, dietitian