

A Perspective on the Effective Conduction of Functional-based Coaching Program on Diabetic Indonesian Communities

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Dear Editor,

We read with great interest the study entitled: 'Family functional-based coaching program on healthy behavior for glycemic control among Indonesian communities: a quasi-experimental study' published in the September 2020 issue of the *Oman Medical Journal*.¹ The study has comprehensively evaluated the ameliorative effects of family functional-based mentoring on diabetes mellitus (DM) patients. Herein, we comment on the methodological advancements and limitations that may augment the conduction of experiments of this genre in the future.

This study belongs to a distinctive class of anti-diabetic studies that efficiently depicts the significance of DM self-management. However, there are few limitations in the experimental design. For example, the selection criteria did not include different diabetic age groups and pregnant women, whose treatment and monitoring would be highly complex.² In the study, evaluation of glycated hemoglobin (HbA_{1c}) was the only parameter used, though numerous parameters are available to determine blood glucose levels. Instead, the blood and serum sugar levels could have been directly evaluated. In addition, hormone (insulin) levels could have been assessed, as the study appears to stimulate the hypoglycemic activity through multi-focal point coaching. Assessment of reactive oxygen species level plays a significant role in DM management, as the former is linked with diabetic complications like cardiomyopathy, nephropathy, and retinopathy.³ It would need concrete evidence to prove the effect of coaching on such complications.

With multiple strategies to enhance the anti-diabetic response in these patients, the researchers have mentioned the role of meditation and physical activities in the coaching. But the hypotensive effect of such initiatives has not been determined. As hypertension and elevated blood pressure are commonly observed in people with diabetes, it is advised to intensify physical activities, meditation, and yoga in the coaching.⁴ However, ascertaining this by evaluating the hypotensive effects was lacking. Moreover, insignificant results in body mass index reduction ($p > 0.050$) indicate the need to employ additional treatment methods such as physical activities during coaching. Further, it is advised to mentor the patients through primary interaction as the results from the intervention group through secondary communication are insignificant ($p = 0.434$). Further, the researchers have not highlighted the futuristic technical and social impacts like availability of trained medical staff, their training measures, feasibility, and management that could be an economic burden.⁵

In conclusion, we presume that considering these perspectives and suggestions could make a positive difference in conducting non-therapeutic DM management studies and programs, from which one could expect betterment in the lives of those living with diabetics.

REFERENCES

1. Pamungkas RA, Chamroonsawasdi K. Family functional-based coaching program on healthy behavior for glycemic control among Indonesian communities: a quasi-experimental study. *Oman Med J* 2020 Sep;35(5):e173.

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2. Kalra B, Gupta Y, Singla R, Kalra S. Use of oral anti-diabetic agents in pregnancy: a pragmatic approach. *N Am J Med Sci* 2015 Jan;7(1):6-12.
3. Volpe CM, Villar-Delfino PH, Dos Anjos PM, Nogueira-Machado JA. Cellular death, reactive oxygen species (ROS) and diabetic complications. *Cell Death Dis* 2018 Jan;9(2):119.
4. Raveendran AV, Deshpandae A, Joshi SR. Therapeutic role of yoga in type 2 diabetes. *Endocrinol Metab (Seoul)* 2018 Sep;33(3):307-317.
5. Patel MR, Resnicow K, Lang I, Kraus K, Heisler M. Solutions to address diabetes-related financial burden and cost-related nonadherence: results from a pilot study. *Health Educ Behav* 2018 Feb;45(1):101-111.