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## **Tawazon- an intensive lifestyle Diabetes prevention program: The Saudi Arabian pilot**

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**Background:** Tawazon, an Arabic word meaning “balance”, is a diabetes prevention program launched by Johns Hopkins Aramco Healthcare (JHAH) for adults. It is designed to employ a modified Diabetes Prevention Program (DPP) of the Centers of Disease Control and Prevention DPP based intervention for known prediabetes by achieving 5-7% weight loss.

**Material and Methods:** This is a retrospective before and after study, participants were recruited to the program from four different facilities within JHAH (Dhahran, Abqaiq, Al Ahsa, and Ras Tanura) between October 2018 and June 2019. Participants were recruited by physician referral, selection from electronic health records, and through awareness sessions. The eligibility criteria were as per the CDC accredited programs. Primary care physicians evaluated fitness for participation before enrollment. The actual and percentage changes in weight and HbA1c between the beginning and the end of the intervention were the primary outcome measures. Total, LDL and HDL cholesterol and triglycerides were the secondary outcome measures.

**Results:** Participants had a (5.8%) decrease in body weight which was within the 5-7% range aimed by DPP-like programs. The decrease in the mean initial HbA1c values of participants by 0.12 (2.09%) corroborates the evidence

of a successful intensive lifestyle intervention. Both weight and HbA1c reductions were statistically significant. Weight loss and HbA1c reductions were achieved at all four study sites and in both sexes and the changes were statistically significant except for HbA1c decrease at one site. In all, 89 (54%) participants achieved greater than 5% weight loss and 46 (28%) who initially had HbA1c > 5.7% reduced it to the normal range of below 5.7%.

**Conclusion:** Tawazon achieved a significant reduction in mean HbA1c, total and LDL cholesterol, and triglycerides. Its results are comparable or even better than several other real life translational diabetes prevention programs in terms of the mean absolute and percentage weight loss, which is the proxy outcome to assess the effectiveness of DPP intensive lifestyle intervention for diabetes prevention.

### **Biography**

Hayat Mushcab has her expertise in public health and clinical research. Her expertise in clinical research has been essential in many local and national studies and trials. During the current pandemic of COVID-19, she has raised to the opportunity of conducting several prospective and retrospective studies varying from phase II clinical trial to treat COVID-19 with convalescent plasma to evaluating the risk factors of patient hospitalization. She has also done several research collaborations with Imam Abdulrahman bin Faisal University and University hospital. Mystery intrigues her and research is her way to solve it.

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