

2<sup>nd</sup> Annual Congress on  
**HEALTH & MEDICAL SCIENCE**  
May 12, 2023 | Webinar

Received Date: 2022-11-29 | Accepted Date: 2022-12-02 | Published Date: 2023-06-12

## **The effect of educational intervention educational programs using WhatsApp on adherence to anti-diabetic drugs in primary health care units**

**Ibrahim El Bayoumy**  
Tanta University, Egypt

**Background:** Low adherence to pharmacological therapy by patients with diabetes mellitus is frequent and represents a worldwide challenge.

**Introduction:** This study examined the effect of an educational intervention program using WhatsApp\_ messaging on medication adherence of patients with type 2 diabetes mellitus

**Patients and methods:** A randomized clinical trial was performed with 500 patients who had diabetes and who had enrolled in the 3 primary health care units (diabetes clinic) The patients were randomly assigned to either the intervention group (n = 250), which received usual care (multi-professional educational appointments according to each Unit schedule) plus 60 audio, image or text WhatsApp messages about health care promotion, with an emphasis on medication adherence,. The control group (n = 250) only received usual care. Medication adherence, as measured by the Morisky-Green Test, was compared through the chi-square test after 6 months Relative risk (RR) was used as a measure of effect size

**Results:** After the follow-up period (6 months), 75% of the patients in the intervention group were adherent versus 51.3% in the control group (RR: 1.15, 95% confidence interval = 0.88-1.53, p = 0.05

**Discussion:** There was a clinically significant impact associated with increase in medication adherence to the control group

**Conclusion:** Given the complexity of adherence to the use of antidiabetic and antihypertensive medications, educational interventions using WhatsApp could be useful as a reinforcement to increase adherence to medication.

**Keywords:** Type 2 diabetes,health technology, health promotion, telemedicine

### **Recent publications**

1. Type 2 diabetes mellitus as a risk factor for the development of hepatocellular carcinoma: Case-control; hospital-based study published in Ciencia e Tecnica vitivinicola journal in Portugal, volume 35(no 1,year2020) (ISSN:0254-0223)
2. Herbal use and perceptions among patients with type 2 diabetes mellitus in Kuwait Published in Journal of Diabetes Mellitus .2022,12,50-62
3. Diabetic neuropathy:Patients' experiences and perceptions: A Qualitative study in type2 diabetics published in Journal of Diabetes Metabolism .2022 Volume 13 issue 9:955

### **Biography**

Ibrahim El- Bayoumy holds a bachelor of medicine and surgery (Tanta Faculty of medicine-Egypt,1989), then he earned his master's degree in public health, preventive and social medicine (Tanta Faculty of medicine-Egypt1996), and MD, PhD in public health, preventive and social medicine 2003 from Tanta faculty of medicine-Egypt and McGill faculty of medicine –Montreal -Canada in the division of clinical epidemiology in Royal Victoria hospital through double channel system as a scholarship from Ministry of education-Egypt. He is a Full professor of public health and community medicine at Tanta Faculty of Medicine-Egypt since November 2016. Now he is working in the Ministry of Health in Kuwait as a consultant in public health and preventive medicine.

ibrahim.elbayoumy@med.tanta.edu.eg