

# Effect of Ramadan specifiec diabtes education on glycaemic control in patients with type 2 diabetes

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### Abstract

Approximately 80-million Muslims with type 2 diabetes fast annually during Ramadan. This study aims to determine the effects of Ramadan Specifiec Diabtes Education (RSDE) on glycaemic control of patients with Type 2 Diabetes (T2DM). A prospective cohort study of 437 outpatients was carried out in the Abaseen Institute of Medical Sciences Sugar Hospital Pakistan from April to August 2019. A month before Ramadan, the intervention group of 238 subjects (54%) received one to one RSDE sessions. This was in addition to information leaflets; treatment adjustment plans and a questionnaire which were provided to the control group of 199 subjects (46%). International Diabetes Federation - Diabetes and Ramadan risk stratification guidelines3 were applied. Both groups had their HbA1c levels measured before and after Ramadan. The gender distribution and mean age (50 S.D.  $\pm$  10 years) in both groups were similar. The mean reduction in HbA1c levels for the intervention and control group was (0.3 S.D.  $\pm$  0.9) % and (0.7 S.D.  $\pm$  1.5) %, respectively with (independent-samples t-test pvalue < 0.001). Based on the IDF-DAR risk stratification, the intervention group consisted of 82 (34%) low or moderate risk, 146 (61%) high risk and 10 (4.2%) very high-risk subjects. The mean reductions of HbA1c in these three groups were (0.0 SD ±0.0) %, (0.4 SD 1.0) % and (0.3 SD 0.8) %, respectively with (ANOVA test p-value < 0.001). Post Ramadan, both groups showed reduction in HbA1c levels. The control group had a greater reduction which was statistically significant.



#### **Biography:**

Dr Yusra Amanullah is a junior doctor currently working as a Foundation Year 2 at Queens Hospital Burton, University Hospitals of Derby and Burton Trust. She has completed her Foundation Year 1 training at University Hospitals of North Midlands (UHNM) 2018-2019. She graduated from Army Medical College, National University of Medical Sciences (NUMS) Pakistan in 2017. Dr Amanullah has strong communication and presentation skills, has conducted a quality improvement project/audit and has published a case report in

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### Speaker Publications:

1. Effect of Ramadan specifiec diabtes education on glycaemic control in patients with type 2 diabetes



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