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**Effect of Zinc Supplementation on Blood Glucose Level in Different Age Groups of Diabetes Type 2****Mahwish Aslam***University of Lahore, Pakistan***Background:** Studies on humans have revealed the beneficial effects of zinc (Zn) supplementation in patients with type-2 diabetes.

**Aim:** The present study was designed to investigate the effects of zinc supplementation on blood glucose level in type-2 diabetic patients and determine the interaction between age and zinc supplementation in type-2 diabetic patients. **Methods:** A randomized placebo control trial was conducted in Bashir Hospital of Sialkot, Allama Iqbal Memorial Hospital Sialkot and Civil Hospital of Daska, Sialkot. 144 diabetic patients were selected including an expected drop-out rate of 20%. The participants were randomly divided into intervention (Zn tablets providing 20 mg Zn/day) and control (placebo) groups. Each group was further divided into 2 age categories, Category 1 (30-50 years of age) and Category 2 (51-70 Years of age). Demographic data, anthropometric measurements, 24-hour dietary recall, serum blood glucose analysis, HbA1C, and serum zinc levels were recorded at the beginning (0 day) and end of the study (60 days). **Results:** Final fasting serum glucose levels were significantly ( $p < 0.05$ ) lower in the treatment group compared to the control group, but interestingly, the results were significant ( $p < 0.05$ ) in the older age group (51-70 years) compared to their younger age counterparts (30-50 years) of the treatment groups. A similar trend was also found in the HbA1c, serum Zn levels, and BMI of the participants. **Conclusion:** Results implied the possible phenomenon of better response to Zn supplementation among aged patients compared to younger counterparts, which may suggest higher Zn demand with advanced age.

**Keywords:** Zinc, diabetes type 2, HbA1c, fasting glucose level, BMI, 24-hour dietary recall**Biography**

Mahwish has completed her Mphil in Human Nutrition and dietetics at the age of 24 years from University Of Lahore, Lahore, Pakistan. She has done her Bechelors at Doctor of Nutritional Sciences from university of south asia. She is currently working as a consultan dietetian in Qasim Central Hospital, Daska, Sialkot. She has 3 publication in well reputed journals and upto 7 article has been submitted in multiple journals, giving full consideration.