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Bad eating habits among type II diabetic patients at tertiary hospital: A case-control study

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Background: There is a strong association between type II Diabetes Mellitus (DM) and gaining weight. Lifestyle modification is an important factor for weight management to overcome the obesity as well as DM epidemics.

Aim of study: To find the differences of eating habits and Rosenberg Self-Esteem between DM patients and control and to find the strongest contributor of risk factors by study groups.

Methods: A hospital-based matched case-control study design was carried out on (250) patients with DM and control seen at Diabetic and Endocrine Centre and other outpatient clinics in Tertiary Teaching Hospital. A binary logistic regression model was used and a p-value of ≤ 0.05 was considered statistically significant.

Results: There were significant mean differences of Bad Eating Habits by study groups among all statements except (How many times did you sleep less than five hours at night). There were significant mean differences of Rosenberg Self-Esteem by study groups among for the statements (1, 3, 5, 8, 9 and 10). (35.2%) of DM patients had high Bad Eating Habits and Rosenberg Self-Esteem levels. There were direct weak significant correlations of Bad Eating Habits and Rosenberg Self-Esteem Scales by DM patients ($r=0.286$, $p=0.001^*$) and control ($r=0.314$, $p<0.001^*$). DM patients were 0.91 and 0.86 less likely to report bad eating habits and high Rosenberg Self-Esteem than control, respectively. DM patients were 19, 18 and 3 times more likely to have brothers and parent with DM than control as well as to have high HBA1c, respectively.

Conclusion: Therefore, assessing eating behaviours of diabetic patients as a routine nutritional assessment, in addition to the traditional dietary assessment methods, would be an important implication. Behavioural changes with regards to meal planning and food selection are necessary for the adoption of a healthy and balanced diet. In conclusion considering the complex association between diabetes and its health related consequences, there is a need for a considerable attention to the patients' education.

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Metabolomic profiling, antioxidant capacity and in vitro anticancer activity of some compositae plants growing in Saudi Arabia

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The present study was conducted to evaluate the metabolomic profiling, antioxidant capacity and anticancer activities of some common widely grown plants of the family Compositae. The total phenolics, flavonoids, anthocyanins, saponins, total antioxidant capacity (TAC) and 2,2-diphenylpicrylhydrazyl (DPPH) assays were determined in the selected plant extracts. *In vitro* anticancer activity was also assessed using human hepatocellular carcinoma (HepG-2) and breast adenocarcinoma (MCF-7) cell lines. The plant species revealed different metabolomic profiling. Artemisia showed the highest contents of the detected secondary metabolites compared to other plant extracts. *Pulcaria crispa* showed the highest inhibition concentration 50% (IC50) among the screened extracts against HepG-2 (8.9 $\mu\text{g/ml}$) and MCF-7 (8.14 $\mu\text{g/ml}$). The high performance liquid chromatography analysis (HPLC) of *P. crispa* extract revealed the presence of high content of three phenolic compounds, benzoic, chlorogenic acid and vanillic acid, along with two polyphenolic compounds, hesperidin and quercetrin. In summary, among the screened extracts, *P. crispa* has the most potent anti-tumor activity *in vitro* against HepG-2 and MCF-7 cell lines.

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