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Dietary management in the New Dimensions Reconditioning Program

Abi Oliver [1,*], Andrea Jasper [1], Rosalind Lau [2], Ana Hutchinson [2], Mari Botti [2], Amanda Savvaidis [1], Suzie Hooper [1], Verity Joyce [1], Ana Torres [1], Rochelle Gannon [1], Ismini Dandanis [1], Stacey Allen [1], Maya Light [1]

[1] Epworth Rehabilitation and Mental Health, Epworth Healthcare, Camberwell, VIC, Australia
[2] Epworth/Deakin Centre for Clinical Nursing Research, Deakin University, Melbourne, VIC, Australia

Background: Obesity is an increasing public health problem in most developed countries. Australia has a growing health crisis of morbid obesity, BMI > 40 kg/m^2. The New Dimensions Reconditioning (NDR) program is an initiative undertaken by Epworth Healthcare to increase the uptake of healthy lifestyle choices following a bariatric intervention including surgery, as well as structured programs of dietary modification, exercise or medication. The dietitian provides education on healthy eating and practical dietary management.

Aims: The aims of this project were to evaluate the feasibility of the NDR program and the impact on patient outcomes following completion of the program.

Methods: This was a prospective, longitudinal, repeated measures, quasi-experimental project. Patients were weighed regularly. They completed the Intuitive Eating Scale (IES) before and again at the end of the program.

Results: Thirty six patients participated in the study and 18 completed the pre and post IES surveyAt baseline, eight patients were super obese (BMI > 50 kg/m^2) and seven were morbidly obese (BMI > 40 kg/m^2). The majority were female with a median age of 51 (range 18 – 80) years old. At program completion, 3 (9%) patients had gained weight (median 5.25 kg, range 0.5 – 5.5 kg) and 32 (91%) had lost weight (median 2.1 kg, range 0.15 – 19 kg). Post scores were higher in the three intuitive eating processes of unconditional permission to eat, eating for physical rather than emotional reasons, and reliance on internal hunger/satiety cues. There was a statistically significant difference between pre and post IES total score, $z = -3.280$, $p = .001$.

Conclusion: The NDR program has a positive impact on the patients' weight loss. Patients reported that they were more likely to eat in response to physical rather than emotional or behavioural cues. These findings confirm the important role of dietitians in the program.

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Estimating fibrosis from non-alcoholic fatty liver disease and its associations using the non-alcoholic fatty liver disease (NAFLD) fibrosis and FIB-4 scores in hospitalised inpatients: A retrospective, matched cohort study

Ramy H. Bishay [2,3,1], Dhanya Sanjeev [1,*], Gideon Meyerowitz-Katz [4], Golo Ahlenstiel [5,2,1]

[1] Metabolic & Weight Loss Program, Department of Endocrinology and Diabetes, Blacktown Hospital, Blacktown, NSW, Australia
[2] School of Medicine, University of Western Sydney, Sydney, NSW, Australia
[3] School of Medicine, University of Sydney, Sydney, NSW, Australia
[4] Western Sydney Diabetes, Integrated and Community Health Directorate, Blacktown Hospital Department of Endocrinology and Diabetes, Western Sydney Local Health District, Sydney, NSW, Australia
[5] Storr Liver Centre, Westmead Millennium Institute, Westmead Hospital, University of Sydney, Sydney, NSW, Australia

Introduction: Diagnosing non-alcoholic fatty liver disease (NAFLD) is impeded by poorly corroborative serological markers and invasiveness of 'gold standard' liver biopsy. Scoring systems (NAFLD fibrosis score [NAFLDFS], FIB-4) have been utilised with some success in the community, yet their use in hospitalised obese individuals has not been evaluated.

Methods: Retrospective data extraction for obesity-related conditions were obtained from all admissions to Blacktown-Mt Druitt hospitals (April 2016-February 2017). NAFLD fibrosis and FIB-4 scores were applied to estimate the risk of liver fibrosis for patients with both obese-related (Ob) admissions vs an age and gender matched non-obese (NOb) related admission cohort.

Results: Of 43,212 admissions, 244 had an Ob-related diagnosis. Compared with NOb patients, the Ob cohort (mean age 55 + 17 vs 56 + 17 yrs; 54 vs 53% female; mean weight 82 + 25 vs 126 + 37 kg; BMI 29 + 8 vs 46 + 12 kg/m^2) featured significantly greater comorbidities (median 14 vs 4, $P < 0.001$), 2–5x greater prevalence of Type 2 diabetes (T2D), cardiopulmonary disease, pharmacologic burden, length of stay and cost (all $P < 0.001$). There were no differences in NAFLDFS or FIB-4 scores between the NOb and Ob patients. Compared with a low NAFLDFS or FIB-4 score (<−1.455; <1.45), a high score (>0.675; >3.25) was respectively associated with ischaemic/coronary artery disease ($P = 0.006$, OR 2.48; $P < 0.001$, OR 3.41) and hyperlipidaemia ($P < 0.001$, OR 3.41; $P = 0.001$, OR 2.53), whereas NAFLDFS was additionally associated with pulmonary hypertension ($P = 0.047$, OR 3.36), hypertension ($P < 0.001$, OR 3.20), obstructive sleep apnoea ($P < 0.001$, OR 2.74) and T2D ($P < 0.001$, OR 3.03). Of those with high NAFLDFS ($n = 142$) or FIB-4 ($n = 22$), only 4% ($n = 6$) and 0% had a diagnosis of NAFLD, respectively.

Conclusion: The use of NAFLDFS and FIB-4 correlate with well-known cardiovascular risk phenotypes. High scores may prompt an opportunity to improve clinical inertia in the diagnosis of this disease in at-risk hospitalised patients.