Background As the prevalence of obesity keeps rising worldwide, new approaches to decrease risk of metabolic disease have been studied, since traditional methods of calorie restriction and physical activity might be insufficient against the vast variety of dietary and lifestyle factors affecting metabolic status. Timing of meals has shown to influence multiple metabolic parameters and has therefore gained popularity among researches as a new strategy for managing bodyweight and improving health status.

Objectives The aim of this study was to test the association between the timing of the three main meals and blood lipid profile parameters in a sample of United States adults.

Methods Cross-sectional study of the NHAES (2017–2018) survey. Time of intake categories were created for the three main meals (breakfast, lunch, dinner) according quartiles from population values. Multivariable linear regression was performed to test the association between meal timing categories and lipid profile parameters (Total cholesterol, low-density lipoprotein (LDL), triglycerides, and high-density lipoprotein (HDL), controlling for potential confounders.

Results A final sample of n=3700 adults were included in the analysis. Energy intake increased across meals during the day possibly due to less satiating effect, but also within meals as time of intake was delayed. Those who sleep less had both earlier breakfast and later dinner times (p>0.00). Delaying breakfast and lunch was associated with a higher BMI (p<0.00) and WC (p>0.00), however dinner was only associated with higher WC (p<0.01). Regression models showed an increase in LDL and triglycerides when meals were delayed while HDL remained unaffected. The increase in triglycerides (23.5, 95% CI (9.21, 37.8)) and was more pronounced during breakfast than in any other meal (p>0.00).

Conclusion This study suggests that maintaining earlier periods of intake has a favorable effect on lipid profile parameters such as HDL and triglycerides, as well as other metabolic indicators like BMI and WC. However further research is needed to further study possible long-term effects on HDL and total cholesterol, as well as the most appropriate intake periods for optimal metabolic function.

Abstracts


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20 MAPPING NUTRITION EDUCATION EMBEDDED WITHIN MEDICAL CURRICULA IN AUSTRALIA AND NEW ZEALAND: A CROSS-SECTIONAL QUANTITATIVE STUDY

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Background Globally, one in five deaths are attributable to suboptimal diet. Doctors are well-positioned to address nutrition issues, however, often lack the knowledge and skills to do so. Nutrition in medical curricula is widely insufficient, resulting in an evidence-practice gap between nutrition knowledge and competency to provide effective nutrition care. In Australia and New Zealand, medical curricula are accredited by the Australian Medical Council (AMC). Throughout the AMC Standards there is no single competency related to nutrition, rather the onus is on individual medical schools to include nutrition education and teaching in their curricula.

Objectives We aimed to systematically map nutrition education in medical curricula across all 23 medical schools accredited by the AMC in Australia and New Zealand.

Methods We reviewed available learning objectives for 20 of the 23 AMC accredited medical schools in Australia and New Zealand between February to June 2021. Current learning objectives for each course were extracted. We reviewed all objectives and identified Nutrition Relevant Learning Objectives (NRLOs), or equivalent Learning Outcomes/Graduate Attributes. An adaption of Deakin University’s Extended Nutrition Competency Framework was used to determine keywords in classifying a learning objective as nutrition relevant. NRLOs were analyzed according to Bloom’s revised taxonomy to determine which levels objectives met within Cognitive (Knowledge), Psychomotor (Action), or Affective (Emotive) domains.

Results 11 (55%) of 20 medical schools contained NRLOs in their curricula. One curriculum comprised 129 (69.4%) of all NRLOs, while nine curricula contained none. Learning objectives were unavailable for three medical schools. The majority of NRLOs (181, 97.3%) were in the Cognitive domain of Bloom’s revised taxonomy, predominantly at level three ‘applying’ (90, 49.7%). When comparing clinical and pre-clinical years across curricula, the proportion of NRLOs in the Psychomotor domain was 3.5-fold higher in clinical years (4, 4.1%) versus pre-clinical years (1, 1.2%). No curricula contained any NRLOs in the Affective domain.

Conclusion There is wide variation across medical curricula regarding the amount of NRLOs. New Zealand medical curricula were more likely to include NRLOs than Australian curricula, although only two medical schools were New Zealand based. This may lead to varying competency of medical graduates to provide nutrition care in Australia and New Zealand.

21 TV VIEWING HOURS, SUGAR SWEETENED BEVERAGE CONSUMPTION PATTERN, DIETARY CALORIES, AND BMI OF EARLY, MIDDLE AND LATE ADOLESCENTS

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Introduction Health care worker’s job accountability may influence their ability to maintain healthy lifestyle and dietary habits. Therefore, there is a need to address health issues among health care workers (HCW).

Material Based on quota system, from the urban hospitals of Bangalore city (Karnataka) India, 205 subjects were selected. Professional classification was followed as suggested by WHO (2020). Self-reported height and weight was noted. Calculated BMI was classified as per WHO, (2020) further compared with macro and micronutrient intake (calculated using 2 day 24 hour dietary recall method), Mean Adequacy Ratio (MAR), Nutritional Adequacy Ratio (NAR), physical activity, stress and sleep pattern.

Results Current study included, 74(36.07%) doctors, 97 (47.32%) nurses and 34 (16.5%) paramedical staff. BMI