

## Correlation of behavioral indicators of chrononutrition with obesity, midnight snacking and sleep pattern among youths

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### Abstract

Chrononutrition involves synchronizing you're eating patterns with your biological clock. The circadian body clock is a 24-hour biological cycle that occurs in every cell of the body, driving daily rhythms in our physiology, from when we sleep, to hormone levels, to how we respond to medication. Our body clock is synchronised with the surrounding environment by exposure to daylight and the timing of meals. This synchrony is important for long-term health. Medical education demands long and odd hours of study and work which disrupts the circadian system and is associated with increased risk of obesity, mental health disorder and metabolic disorders. The study was a cross-sectional study on medical students from four government medical colleges of Mumbai city of India. Questionnaire was used to collect information on socio-demographic variables, FFQ, 24 hour recall, physical activity assessment, sleep patterns, behavioural indicators of chrononutrition. Anthropometric measurements and body composition (bioelectrical impedance) was done. The data was analysed using the SPSS version 20. Mean age of the subjects (75 males and 76 females) was  $19.22 \pm 0.414$  years. Participants with less than 14 hour eating window period, evening latency, early diners and those who ate largest meal for the breakfast reported better sleep quality, lower BMI, higher lean body mass and lesser episodes of midnight snacking. Participants with chronotype toward morningness consumed more servings of fruits and vegetables, less sugar laden foods ( $p < 0.001$ ). Students involved in moderately intense exercise in the morning hours had lesser appetite in later part of the day and undisturbed sleep ( $p < 0.001$ ). Chrononutrition may be an important tool to enhance the metabolic health. Meal timing as per the light exposure is likely the best way to mitigate the adverse effects of disruption in circadian system.



### Biography:

Miss Neelam Rathod is a bonafide PhD student of The Maharaja Sayajirao University of Baroda in India. She has qualified UGC national entrance test for PhD and is bestowed with fellowship for her PhD research work. In past, she has worked with eminent organizations like Tata Institute of Social Sciences and UNICEF India as research and nutrition consultant, respectively. She has published her first research paper at an age of 20 years. She aspires to be Nutrition Scientist.



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