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Assessment of motivating factors to follow a time-restricted eating dietary protocol

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The number of clinical studies assessing the effects of time-restricted eating (TRE) has increased in recent years⁽¹⁾. The results of the studies conducted on humans demonstrate some health benefits, however, there is still a need to design larger and longer randomized clinical trials to prove the effectiveness and long-term benefits of these types of interventions⁽²⁾. However, to ensure these health benefits, individuals need to be able to integrate its principles into their daily routines. This work aimed to associate daily habits with the potential adherence to different TRE protocols and to determine the factors that predict adherence to these protocols.

A cross-sectional study was conducted using an online questionnaire based on a previous study⁽³⁾, to assess the dietary and sleeping habits, daily routines and willingness to adhere to different windows of time-restricted eating in a sample of Portuguese adults. To analyze the associations between variables, the Spearman correlation coefficient and the Chi-Square test were calculated, and multiple linear regression was performed to identify the predictive factors. Statistical analysis was conducted on IBM SPSS Statistics version 29.0.

130 responses were obtained (26% men, 74% women) with a mean age of 37.9±13.59 years old. On workdays, 60.0% of participants reported a daily eating window (the period between the first and last caloric intake) of 12h-14h, while on free days the highest percentage (41.5%) was between 10h-12h. An inverse correlation was observed between age and willingness to adhere to a TRE protocol if there were health benefits ($r=-0.356$, $p<0.001$). Moderate correlations were also found between the availability to follow a TRE protocol on work days ($r=0.538$) and free days ($r=0.598$) and the potential health benefits of this type of intervention ($p<0.001$). Associations were found between sex and potential adherence to the TRE protocol ($\chi^2=10.644$, $df=2$, $p=0.005$), with a tendency for more men not to adhere to a TRE protocol. There was also an association between body weight management and reducing the eating window by 1h-2h ($\chi^2=24.883$, $df=12$, $p=0.015$) and 2h-3h ($\chi^2=22.367$, $df=12$, $p=0.034$). The living situation, motivation for change, income, weight management, cooking knowledge, and working schedule were among the main factors predicting the willingness to adhere to TRE protocols ($p<0.05$).

People's willingness and motivation to adhere to TRE protocols outside the controlled environment of a clinical study depends on several factors. The results presented herein provide information that may be central when considering the translation of study results into nutritional practice and counselling.

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References

1. Sun JC, Tan ZT, He CJ *et al.* (2023) *Eur J Clin Nutr* 77, 1014–1025.
2. Manoogian ENC, Chow LS, Taub PR *et al.* (2022) *Endocr Rev* 42, 405–436.
3. Jefcoate PW, Robertson MD, Ogdan J & Johnston JD (2021) *Appetite* 164, 105240.