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Correlates of 'morningness' and breakfast frequency in a national UK sample

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'Morningness' has been found to be related to mental and physical health, to career success and breakfast behaviour. As part of an earlier experimental study we observed a moderate correlation between morningness and breakfast eating frequency, indicating that those who are morning-active are more likely to eat breakfast. However to date there have been no studies that have investigated breakfast consumption in relation to morningness, as a measure of circadian rhythm in a large, representative sample. The aim is to test the hypothesis that morningness statistically predicts breakfasting frequency and to explore the role of mental health, personality characteristics and 'breakfast beliefs' as possible correlates of breakfasting in a large UK sample.

A UK representative, web-based survey of 1,068 adults was conducted combining standardised scales and self-designed questionnaire statements. The Composite Morningness Questionnaire[(1)] was used to assess personal preferences for morningness and eveningness respectively. The measure is used as an indicator of individual circadian rhythms. Wellbeing was assessed using the WHO-5 Wellbeing scale; conscientiousness and eating behaviour were assessed using standardised scales. Non-parametric statistical correlations and logistic regressions were run.

A large majority of 64% of people eats breakfast every day of the week. Morningness correlates with breakfasting frequency (rho = 0.24) and conscientiousness (0.21), wellbeing (0.32; all p-values < 0.0005) and BMI (0.15; $p < 0.005$). Bivariate analysis revealed considerable differences between regular, irregular and never breakfasters, in terms of psychological and behavioural profiles. Hierarchical, binary logistic regression modelling comparing occasional (<5 days) and regular breakfast eaters (≥ 5 days) identified the psychobiological variables of morningness and cognitive restraint, and the demographics age and education as significant predictors ($p < 0.05$).

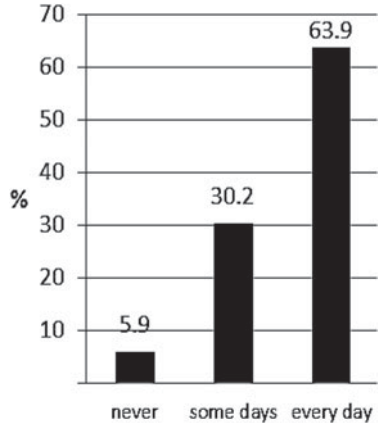

Figure 1: Breakfast eating frequency (% of sample).

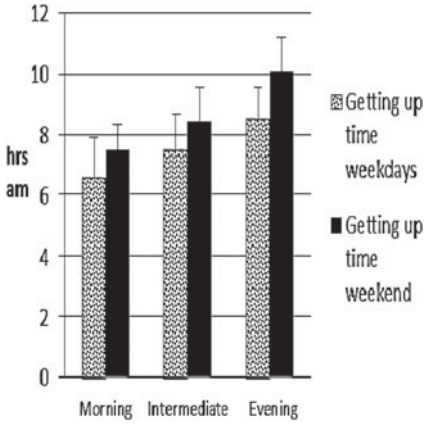

Figure 2: Time of day preference and getting up times weekday and weekend (mean hours am + 1 SD).

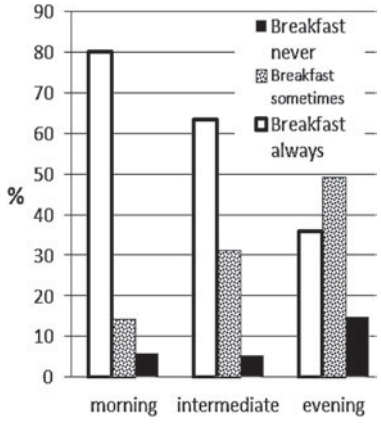

Figure 3: Time of day preference and breakfast frequency (% of group).

Morning-active individuals and those who report higher levels of cognitive restraint are more likely to eat breakfast. In addition, older and better educated people are more likely to eat breakfast. In conclusion, morningness as an indicator of psychological preferences and partly reflecting endogenous biological clocks should not be ignored in breakfast behaviour research and health campaigns.

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1. Barton J, Costa G, Smith L *et al.* (1995) *Work & Stress* **9**, 4–30.