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Associations between dietary fat intake and mood in older European adults

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There appears to be a dearth of research that has explored associations between fat intake and mood in healthy populations. Older adults are vulnerable to nutritional deficiency and this may impact on their mood. This analysis explored relationships between dietary habits and subjective mood in healthy older Europeans. Adults aged 70–90 years were recruited (*n* 382) in Rome, Italy (*n* 108) and Grenoble, France (*n* 91) and aged 55–70 years in Northern Ireland, UK (*n* 93) and Clermont-Ferrand, France (*n* 95). Mood was measured using the positive and negative affect scale (PANAS)[1] on four occasions per day over 1 week. A 4 day food record was used to assess dietary intakes during the same week. Food consumption data were entered into NetWisp (Tinuviel Software, Warrington, UK) and the specific micro- and macronutrient breakdowns of each diet recorded. Data were analysed using SPSS for Windows v15. Pearson's Correlation indicated that higher positive affect was associated with more-frequent intake of saturated fat (SFA) ($P<0.001$) (Fig 1) and polyunsaturated fat (PUFA) ($P<0.001$) (Fig 2) and less-frequent intake of monounsaturated fat (MUFA) ($P<0.001$) (Fig 3). Higher negative affect was positively associated with higher SFA intake ($P<0.005$) (Table 1). There was no association between total fat intake and affect (Fig 4). The findings suggest that the type of dietary fat consumed may be related to mood in healthy older adults. More controlled research is required to determine whether dietary fat composition benefits mood.

Table 1. Pearson correlations between affect on mood and dietary intake of specific nutruients ($n=382$)

Nutrient	Mean Positive Affect (PA) (PANAS)	Mean Negative Affect (NA) (PANAS)
MUFA intake (g/d)	$P<0.001$ r = −0.288	NS
PUFA intake (g/d)	$P<0.001$ r = 0.289	NS
SFA intake (g/d)	$P<0.001$ r = 0.266	$P<0.005$ r = 0.179
Total fat intake(g/d)	NS	NS

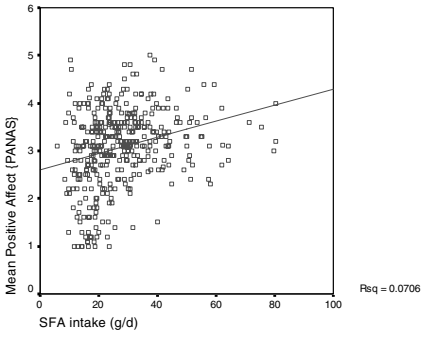

Fig. 1. Relationship between mean positive affect and on mood and SFA intake.

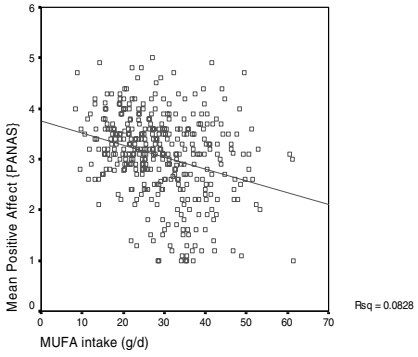

Fig. 2. Relationship between mean positive affect and on mood and MUFA intake.

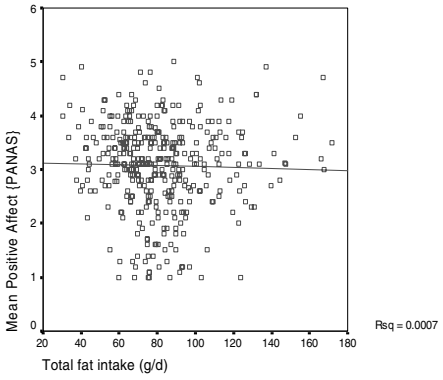

Fig. 3. Relationship between mean positive affect and on mood and Total Fat Intake.

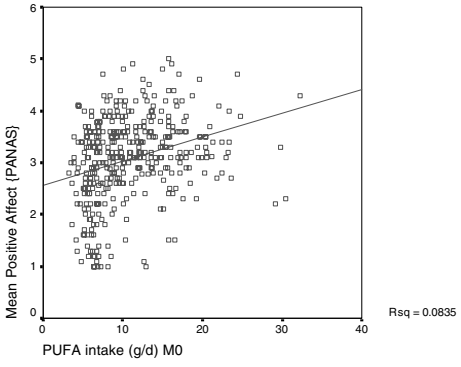

Fig. 4. Relationship between mean positive affect and on mood and PUFA intake.

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1. Watson D, Clark LA & Tellegen A (1988) Development and validation of brief measures of positive and negative affect: the PANAS scales. Journal of Personality and Social Psychology **54**, 1063–1070.