
HOW COOKING AND EATING AT HOME SHAPE EMOTIONAL WELL-BEING: INSIGHTS FROM THE FOOD & YOU SURVEY

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BACKGROUND

- Cooking and eating at home sit at the intersection of nutrition, mental health, social connection, and daily routine—all of which are foundational to emotional well-being.
 - While public health research has traditionally focused on *what* people eat, far less attention has been paid to *how* food is prepared and consumed, and the emotional contexts surrounding these practices.
 - Insights from the Food & You Survey (UK) are especially valuable because they move beyond dietary intake to capture behaviours, perceptions, and lived experiences around food.
 - Rising rates of anxiety, loneliness, and burnout coexist with increasing reliance on ultra-processed and convenience foods.
 - Understanding whether and how home cooking and shared meals act as protective factors for emotional well-being can inform interventions that are practical, culturally adaptable, and scalable—ranging from community cooking programmes to behavioural nudges and food-skills education.
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FOOD & YOU SURVEY

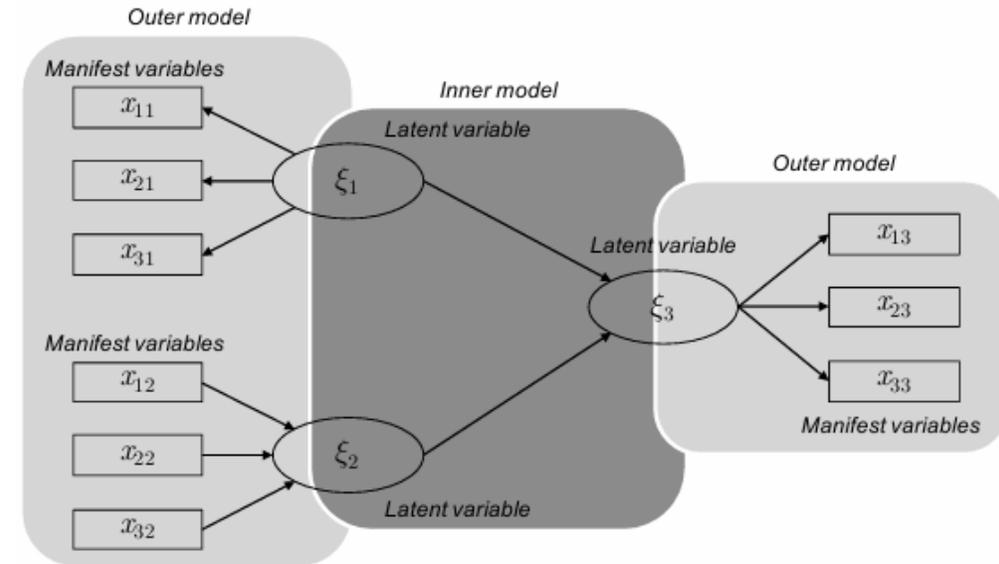
- A nationally representative survey commissioned by the UK Food Standards Agency (FSA).
 - Designed to understand people's food-related behaviours, attitudes, and experiences, not just dietary intake.
 - Links food behaviours with well-being, stress, enjoyment, and daily routines.
 - Supports evidence-based public health and food policy, beyond nutrition alone.
 - Well-suited for behavioural, implementation, and policy research, including evaluation of interventions.
 - Provides a strong empirical base for community programmes, skills education, and mental well-being strategies.
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OBJECTIVE

- To examine the relationship between home cooking and eating practices and emotional well-being among adults in the UK using the Food & You Survey data.
 - To assess indirect and mediating pathways linking food practices to emotional well-being using PLS-SEM.
 - To generate policy-relevant evidence to inform interventions that promote home cooking and shared meals as supports for emotional well-being.
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STATISTICAL METHOD: PLS-SEM

- A variance-based structural equation modelling technique.
- Supports both reflective and formative measurement models.
- Estimates latent variables using observed indicators.
- Allows simultaneous assessment of:
 - ❖ Measurement models (reliability and validity)
 - ❖ Structural models (path coefficients and explained variance)
- Accommodates small to medium sample sizes compared with covariance-based SEM.
- Widely applied in behavioural science, public health and well-being research.



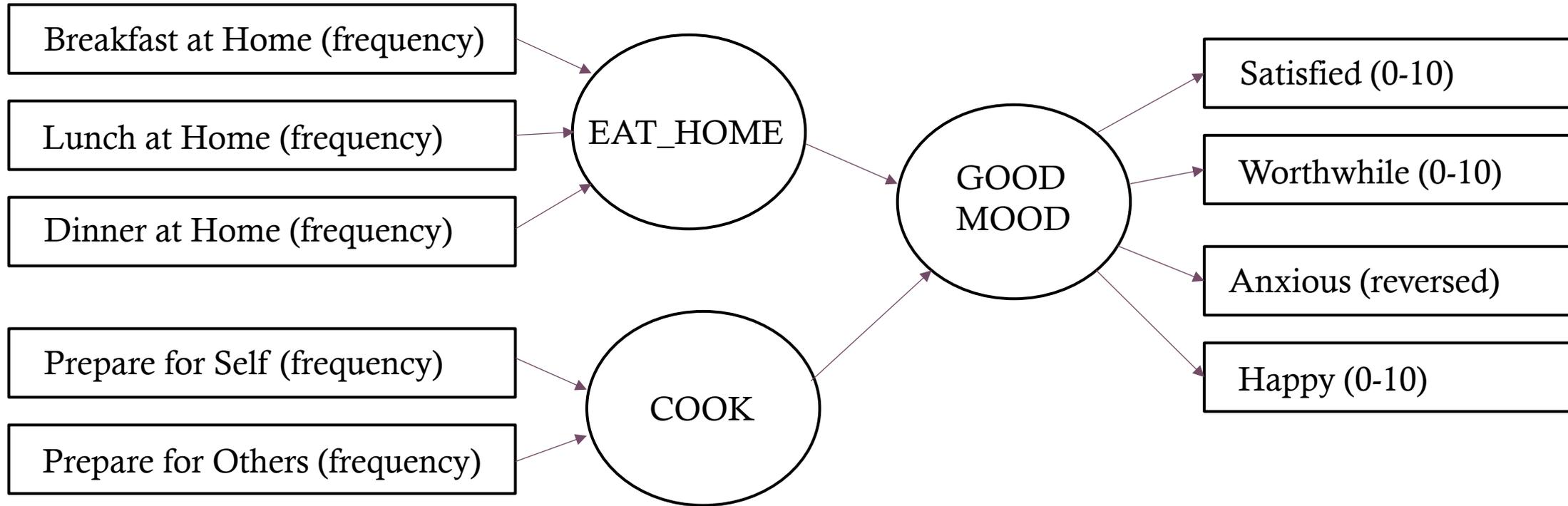
SOFTWARE PACKAGE

- PLS-SEM can be implemented in **Stata** using user-written commands (e.g. `plssem`) and matrix programming, enabling integration with Stata's data-management and survey-analysis capabilities.
 - Stata allows flexible handling of complex survey designs, weighting, and subgroup analyses prior to PLS-SEM estimation.
 - Bootstrapping procedures in Stata can be used to obtain standard errors and confidence intervals for PLS-SEM path coefficients.
 - Stata supports rigorous measurement model evaluation, including reliability, convergent validity, and discriminant validity diagnostics through post-estimation commands.
 - Using PLS-SEM in Stata facilitates reproducible workflows, allowing seamless linkage between descriptive analysis, modelling, and policy-relevant reporting within a single environment.
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DATA

- Data from 3,423 respondents.
- All indicators were measured on Likert scales (e.g., 1-8).
- Emotional well-being was modelled as a reflective construct, while cooking and eating-at-home behaviours were specified as formative composites.

MODEL SET-UP



Indicators measured in
Weekly Frequency

Latent Variables

Ratings

RESULTS: MEASUREMENT MODEL

Measurement model - Standardized loadings

	Formative: EAT_HOME	Formative: COOK	Reflective: GOOD_MOOD
Breakfast_~e	0.961		
Lunch_Home	0.196		
Dinner_Home	0.394		
Prepare_Self		0.487	
Prepare_Ot~s		0.998	
Happy			0.807
Anxious			0.461
Satisfied			0.879
Worthwhile			0.855
Cronbach			0.767
DG			0.847
rho_A	1.000	1.000	0.841

Interpretation of the Measurement Model

Sample size: 3,423

Estimation: PLS-SEM, path weighting scheme, bootstrap inference

For formative constructs, the standardized values should be interpreted as indicator weights / relative contributions, not as reliability loadings.

RESULTS: EAT_HOME

Measurement model - Standardized

	Formative: EAT_HOME
Breakfast_~e	0.961
Lunch_Home	0.196
Dinner_Home	0.394
Prepare_Self	
Prepare_Ot~s	
Happy	
Anxious	
Satisfied	
Worthwhile	
Cronbach DG rho_A	1.000

Interpretation

- Eating breakfast at home overwhelmingly defines the EAT_HOME construct
 - Dinner at home contributes meaningfully but less strongly
 - Lunch at home plays a relatively minor role
 - Substantively, EAT_HOME appears to reflect routine, home-based eating anchored in morning and evening meals, consistent with work-day constraints in the UK population
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RESULTS: COOK

Measurement model - Standardized loadings

	Formative: EAT_HOME	Formative: COOK
Breakfast_~e	0.961	
Lunch_Home	0.196	
Dinner_Home	0.394	
Prepare_Self		0.487
Prepare_Ot~s		0.998
Happy		
Anxious		
Satisfied		
Worthwhile		
Cronbach DG rho_A	1.000	1.000

Interpretation

- Cooking for others is the strongest defining element of the COOK construct
 - Cooking for oneself contributes, but to a lesser extent
 - This suggests COOK captures a social and relational dimension of cooking, not merely individual food preparation
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RESULTS: GOOD_MOOD

Measurement model - Standardized loadings

	Formative: EAT_HOME	Formative: COOK	Reflective: GOOD_MOOD
Breakfast_~e	0.961		
Lunch_Home	0.196		
Dinner_Home	0.394		
Prepare_Self		0.487	
Prepare_Ot~s		0.998	
Happy			0.807
Anxious			0.461
Satisfied			0.879
Worthwhile			0.855
Cronbach			0.767
DG			0.847
rho_A	1.000	1.000	0.841

Interpretation

- GOOD_MOOD is well captured by positive affect and evaluative well-being
 - “Satisfied” and “Worthwhile” are the strongest indicators
 - The lower loading for “Anxious” suggests the construct reflects positive emotional well-being more than distress
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RESULTS: P-VALUES

Measurement model - Standardized loading p-values (Bootstrap)

	Formative: EAT_HOME	Formative: COOK	Reflective: GOOD_MOOD
Breakfast_~e	0.000		
Lunch_Home	0.105		
Dinner_Home	0.001		
Prepare_Self		0.000	
Prepare_Ot~s		0.000	
Happy			0.000
Anxious			0.000
Satisfied			0.000
Worthwhile			0.000

EAT_HOME

- Eating breakfast and dinner at home significantly contribute to the EAT_HOME construct
- Lunch at home does not make a statistically significant contribution once other indicators are considered
- Substantively, this suggests that breakfast and dinner better capture the “eating at home” behaviour than lunch, possibly reflecting workday constraints

COOK

- Cooking for oneself and for others are both core defining components of cooking behaviour

GOOD_MOOD

- All emotional indicators significantly contribute to GOOD_MOOD
 - The inclusion of Anxious (likely reverse-coded) indicates that both positive and negative affect jointly define emotional well-being
 - This supports a multidimensional conceptualisation of mood rather than a single affective state
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RELIABILITY & INTERNAL CONSISTENCY

Reliability and internal consistency (Reflective construct only)

- Cronbach's alpha = 0.767 → acceptable internal consistency
- Dillon–Goldstein's rho (Composite reliability) = 0.847 → good reliability
- rho_A = 0.841 → confirms construct reliability

Reliability statistics are **not interpreted** for formative constructs (hence values of 1.000 for rho_A).

RESULTS: STRUCTURAL MODEL

Structural model - Standardized path coefficients

Variable	GOOD_MOOD
EAT_HOME	0.144 (0.000)
COOK	0.159 (0.000)
r2_a	0.046

p-values in parentheses

Explained variance (Adjusted R²)

- R²_a = 0.046
- Interpretation: Eating at home and cooking together explain about 4.9% of the variance in GOOD_MOOD.
- This is modest but typical and meaningful in behavioural and well-being research, especially for distal psychological outcomes.

Overall conclusion

Both home cooking and eating at home act as independent, positive predictors of emotional well-being, supporting the hypothesis that everyday food practices contribute to mood beyond nutritional factors alone.

Eating at home (EAT_HOME) has a positive and statistically significant association with GOOD_MOOD

- Standardized path coefficient: $\beta = 0.144$
- Bootstrap p-value: $p < 0.001$
- Interpretation: More frequent eating at home is associated with better emotional well-being, holding other variable constant.

Cooking (COOK) also shows a positive and statistically significant association with GOOD_MOOD

- Standardized path coefficient: $\beta = 0.159$
- Bootstrap p-value: $p < 0.001$
- Interpretation: Greater engagement in cooking is associated with better mood, with a slightly stronger effect than eating at home.

Relative strength of effects

- Cooking has a larger standardized effect on GOOD_MOOD than eating at home, suggesting that the act of cooking may contribute more to emotional well-being than eating at home alone.
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DISCUSSION & CONCLUSION

- Emotional well-being plays a meaningful role in shaping food-related behaviours with implications for diet quality and chronic-disease prevention.
 - Strengthening emotional well-being may therefore serve as an effective population-level strategy to encourage healthier cooking and home-eating practices.
 - The findings highlight practical opportunities for integrated behavioural and public-health interventions.
 - Promoting home cooking—through community programmes, family-oriented initiatives, or cooking classes—may simultaneously improve diet and enhance mood by fostering skills, routine, and social connection.
 - Encouraging regular meals at home, particularly breakfast and dinner, aligns with dietary guidelines and supports healthier daily rhythms.
 - Positioning emotional well-being as both a determinant and outcome of food practices underscores the importance of embedding mental health messaging into nutrition and lifestyle campaigns.
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