

Eating habits and mental wellbeing in adolescent girls

Background

What do we know?

Adolescent mental health has been linked to:

- **diet quality** (e.g., healthy diet predicts better mental health, and vice versa; Jacka et al., 2011);
- **meal habits** (e.g., lower frequency of family meals predicts internalising disorders; Elgar et al., 2013).

What are we missing?

- Mental health has usually been defined as absence of disorders rather than **overall mental wellbeing**;
- Socio-emotional factors have been understudied, but a positive effect of **food satisfaction** on mental health has been found (Schnettler et al., 2015).

Research questions

- 1) Do **diet quality** and **meal habits** predict **mental wellbeing**?
- 2) Does **food satisfaction** influence this relationship?



Methods

Sample

564 students from an independent girls' school in southern England were invited; **127** responses were collected ($M_{\text{age}} = 14.4$, range 11–17)

Questionnaire

- questions about **demographics** (age, family size) and **lifestyle** (exercise, screentime, sleep);
- a **mental wellbeing** scale (WEMWBS; Tennant et al., 2007);
- a **food frequency** questionnaire (FFQ; e.g., fruit, vegetables, processed foods; Shaw et al., 2021);
- questions about weekly **meal frequency**, including family meals;
- a **satisfaction with food-related life** scale (SWFL; Grunert et al., 2007).



Results

Reliability analysis

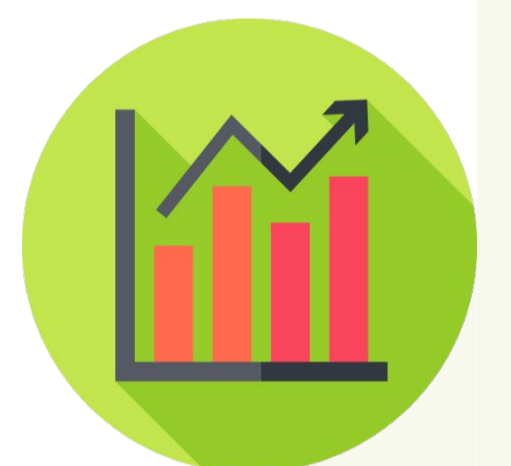
- ✓ **Mental wellbeing** scale – very good ($\alpha = .84$);
- ✓ **Food satisfaction** scale – excellent ($\alpha = .91$);
- ✗ **Food frequency** questionnaire – poor ($\alpha = .57$), but **EFA** reveals two factors (unhealthy and healthy diet), used as predictors below.

Regression analysis

Beta values and significance for predictors of **mental wellbeing**:

Predictor	Model 1	Model 2	Model 3	Model 3
Screentime	-0.26**	-0.21*	-0.19*	$R^2 = .424$
Sleep	0.21*	0.12	0.05	$R^2_{\text{adj}} = .384$
Healthy diet		0.02	0.04	
Unhealthy diet		-0.11	-0.13	
Breakfast		0.23*	0.04	
Lunch		0.06	-0.00	
Family meal		0.03	-0.02	
Food satisfaction			0.54***	

→ Food satisfaction **mediates** the effect of breakfast ($\beta = 0.25, p < .001$), and **moderates** the effect of lunch ($\beta = -0.20, p = .035$).



Discussion

Main findings

- 1) **Diet quality** does not predict mental wellbeing; there is no effect for family meal frequency, and **breakfast frequency** is only predictive until food satisfaction is added;
- 2) **Food satisfaction** positively predicts mental wellbeing; it also **mediates** the effect of breakfast and **moderates** the effect of lunch.

Limitations & future directions

- **Sample validity** → multi-centre, more diverse
- **Measure validity** → review FFQ diet score
- **Construct validity** → refine 'food satisfaction'



References

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