The 50th Annual Meeting of the British Feeding and Drinking Group (BFDG)
23th & 24th April 2026

Contents

Welcome to the Annual Meeting of the BFDG

Welcome to the British Feeding and Drinking Group (BFDG) 50th Annual Meeting. We are pleased to welcome you to Wageningen, the City of Life Sciences and home to Wageningen University and Research, the world's largest 'food' research and education university. The BFDG is an international and multi-disciplinary gathering of scientists interested in all aspects of appetite, eating and drinking. The annual conference welcomes a diverse range of academic, clinical, and industry-based scientists, including those working in psychology, physiology, medicine, nutrition, food science, and related disciplines.

The origins of the annual meeting of the British Feeding and Drinking Group are from a 1976 dinner at the Athenaeum, London, hosted by Trevor Silverstone. This followed the 1975 Dahlem Research Day on Appetite and Food Intake Control. The following year the group met again in Cambridge and continued to meet annually. By 1984, the group was meeting under the name British Feeding and Drinking Group or BFDG. The 2026 meeting marks the 50th edition of the Annual meeting.

Despite its name, the BFDG has always been an international group, welcoming researchers from France, Ireland, Spain, Australia, the Netherlands, the United States, and many more regions world-wide. This year we are pleased to have received 120 abstracts which have been reviewed by our scientific committee, and from which the 2026 Program Committee have prepared an exciting two days of science including 2 keynotes, 30 talks, and 80 posters. We are pleased to welcome over 160 participants from all over the world to contribute to our meeting. This year, the meeting is being organised by the Sensory Science and Eating Behaviour group from the Division of Human Nutrition and Health, Wageningen University & Research, with scientific and program committee members from the UK and wider EU.

We hope that you will enjoy this exciting programme of research talks and posters and a memorable social program to mark the 50th Anniversary of the British Feeding and Drinking Group.

Best wishes,

Ciarán on behalf of the local Organising Committee.

British Feeding and Drinking Group 2026 Committee's

Programme Committee: Dani Ferriday, Beverly O'Hara, Remco Havermans, Eric Robinson

Scientific Committee Abstract Review Oral Submissions: Sanne Boesveldt, Esther Papies, David Mela, Monica Mars, Suzanna Forwood, Harm Veling, Marion Hetherington, Jeff Brunstrom, Arianne van Eck, Markus Stieger, Jordan Beaumont, Charlotte Hardman, Victoire de Wild, Greg Keenan, Chantal Nederkoorn

Posters Committee: Marlou Lasschuijt, Gerry Jager, Ciarán Forde

Social Committee: Guido Camps, Sjanneke Hulshof, Ciarán Forde

Sponsorship Committee: David Mela, Marion Hetherington, Ciarán Forde

Website & Registration Committee: Sjanneke Hulshof and Ciarán Forde

Keynote speakers

Professor Remco Havermans: *Behavioural gastronomy. What it is and why it matters*.

Remco Havermans: Remco was born in 1974, in Eindhoven, the Netherlands. He studied psychology at Radboud University (Nijmegen), researching context specificity of conditioned appetitive responses in rats during his final internship at the department of comparative and physiological psychology. He obtained his PhD at Maastricht University, studying the Pavlovian nature of human appetite and substance use, supervised by Anita Jansen. Since 2015, Remco works at Maastricht University Campus Venlo where he started his own research group examining the interplay between flavour perception and eating behaviour. Remco's research efforts, since moving to Campus Venlo, have meandered between examining sensory-specific satiation, chemotherapy induced taste aberrations, public acceptance of health nudges, personalized gastronomy, hospital food waste management, consumer perception of meat alternatives, children's vegetable acceptance, nutrition education, efficacy of front of pack nutrition labels, children led food innovation, the monitoring of food allergy risk, childhood disorders of gut-brain interaction, food neophobia in older individuals, and reasons for supplement use among recreational half marathoners. Currently, his research focusses on the broader question how to promote a sustainable nutrition transition.

Dr Keri McCrickerd: When evidence isn't enough: Why eating behaviour interventions struggle to work.

Keri McCrickerd is Deputy Director at the Centre for Holistic Initiatives for Learning and Development (CHILD), Yong Loo Lin School of Medicine, National University of Singapore, and a Principal Investigator at the Institute for Human Development and Potential, A*STAR. Her work focuses on shaping early life environments that promote children's health and holistic development across the contexts in which they live, learn, and grow. Drawing on behavioural and implementation science, she leads the development and implementation of initiatives that translate evidence into meaningful change in policy, practice, and community settings.

Registration and arrival

Venue

All keynote and oral presentations for BFDG 2026 will take place in Hotel Wander (WICC) - location of the conference venue Lawickse Allee 9, 6701 AN Wageningen. Poster sessions will take place in the main conference room, (Hugo Tech room, first floor) in Wander.

Getting to the Wageningen and to the Venue

Detailed travel information on how to get to Wageningen and the Hotel Wander (WICC) is available via public transport and explained below: Easy accessible with public transportation **from Schiphol to train station Ede-Wageningen** and from there to the hotel in Wageningen, plan your trip via: Plan your trip with public transport and shared transport | 9292 or Travel planner | Plan your journey | NS

Maps of the location are available in the back of this conference programme, and a red star marks the location of the conference venue (see the 'Maps' section)

Registration

Upon arrival, you should report to the conference registration desk (at the ground floor) to sign in and collect your delegate badge and lanyard. The registration desk will open at 08:30, where refreshments (e.g., tea/coffee) will be provided in the W-invite area (ground floor). A cloakroom will be available at the conference venue.

Day one programme – Thursday 23th April 2026

08:00-09:00	**Registration & refreshments** ***Posters set up (all posters)***
09:00-09:10	**Welcome to the 50th Annual British Feeding and Drinking Group Meeting**
09:10-10:00	**Keynote 1** **Title**: *"Behavioural gastronomy. What it is and why it matters"* - **Remco Havermans**, Maastricht University. Chair: Ciarán Forde, Wageningen University & Research
10:00-11:15	**Session 1: Omnium gatherum** Chair: Jeff Brunstrom University of Bristol Co-chair: Britt Fleischeuer, Maastricht University • Smell and taste function after completion of childhood cancer treatment – **Mirjam van den Brink**, Princess Maxima Centre for Paediatric Oncology. • Regaining food pleasure: can sensory-adapted food design improve the eating experience in patients with cancer? – **Reisya Rizki Riantiningtyas**, University Claude Bernard Lyon 1 and Institute Lyfe Research Centre. • The effects of glucagon-like peptide-1 receptor agonist use on chemosensory systems and ingestive behaviour - **Giorgia Rutigliani**, Purdue University. • Full of it? Comparison of subjective and MRI-based assessment of gastric fullness in free-living adults – **Guido Camps**, Wageningen University & Research. • Multi-component food items and intake: a bogus taste test study – **Laura Wilkinson**, Swansea University.
11:15-12:15	**Poster session 1 and refreshments** **Themes 1, 2 and 3**
12:15-13:15	**Session 2: Sustainable diets and meat reduction** Chair: Greg Keenan, Liverpool John Moores University Co-chair: Florence Sheen, University of Leicester • Consumer perceptions of hybrid cheese: Effects of labelling on sensory attributes and consumer beliefs – **Annelies Blok**, Wageningen University & Research. • Facilitators and barriers to adopting plant-based diets in childhood: UK parents' perspectives - **Alice Coffey**, University of Warwick. • Vegans are seen as taste martyrs by people who eat animal-products – but they're not – **Esther Papies**, Radboud University. • Assessing healthy and sustainable dietary behaviour in Dutch practical education students - **Madelief Engels**, Wageningen University & Research.
13:15-14:15	**Lunch** **Poster viewing**

14:15-15:30	**<u>Session 3: Early feeding, selective eating and development</u>** Chair: Jackie Blissett, Aston University Co-chair: Harmehak Singh, Liverpool Hope University • Infants' social learning about foods – **Camille Rioux**, Centre des Sciences du Goût et de l'Alimentation (Université Bourgogne Europe, Institut Agro, CNRS),. • Exploring early feeding and growth patterns for ARFID using the British Gemini twin cohort – **Zeynep Nas**, University College London. • "When yuck foods stick": memory bias for disliked foods is related to pickiness in eating – **Chantal Nederkoorn**, Maastricht University. • Identifying eating behaviour phenotype cut-off scores for childhood obesity: An individual participant data meta-analysis using the Child Eating Behaviour Questionnaire (CEBQ) – **Laura Kudlek**, University of Heidelberg. • Parental perceptions about the effectiveness and ease of creating positive eating experiences to improve children's vegetable intake – **Katie Edwards**, University of Birmingham.
15:30-16:00	**Refreshments** **Poster viewing**
16:00-17:00	**<u>Session 4: Food Environment Policy</u>** Chair**:** Suzanne Higgs, University of Birmingham Co-chair: Jiachun Li, Wageningen University & Research • Nutri-Score labelling as an obesity policy in the out-of-home food sector: a UK RCT – **Amy Finlay**, University of Liverpool. • Addressing access and affordability of fresh fruit and vegetables in social housing communities: a clustered randomised-controlled trial protocol– **Courtney Neal**, University of Liverpool. • The Role of Social Needs in Dynamic Norm Messages for Reduced Meat Consumption - **Theresa Fox**, Radboud Universiteit Nijmegen. • Does reducing the visibility of meat promotions influence purchasing behaviour? A supermarket field experiment - **Lotte de Lint**, Wageningen University and Research.
17:00-17:05	**Closing remarks**
17:15-18:00	**BFDG Business meeting All welcome**
19:00-23:30	**Gala Dinner, Pub Quiz, And Disco Extravaganza with drinks**

BFDG business meeting

All delegates are welcome to attend the BFDG business meeting.
The BFDG business meeting is an opportunity for BFDGers to come together to discuss a variety of important topics, including BFDG finances, where the next meeting(s) will be held, and strategic decisions that will guide the future development of the BFDG.
Whether you're a seasoned attendee of the BFDG or a newcomer, we welcome your thoughts and contributions. The atmosphere will be collaborative and inclusive, fostering a space where diverse perspectives can thrive. Your input is valuable to us, and together, we aim to strengthen the BFDG.

Conference dinner, Pub Quiz and Party

The conference dinner will start at **7:00 pm** on **Thursday, 23 April**, in Hotel Wander.
You are welcome to arrive from 6:45 pm for a welcome drink. The dinner takes place in the same hotel as the conference, making it very easy to reach. For guests with allergies or dietary requirements: please collect your personal card at the restaurant after 6:00 PM, and place your card on the table. This helps us quickly identify any specific needs per table and ensures a smooth flow of the evening. A dinner ticket is included for standard registration delegates and keynote speakers. It covers a three-course meal (starter, main course, and dessert), together with alcoholic or non-alcoholic drinks.
After dinner, there will be a pub quiz in the same restaurant, followed by a Disco Extravaganza party with drinks until 23:30hrs. Three drinks are included and provided by the organizing committee BFDG.

Day two programme – Friday 24th April 2026

08:00-09:00	**Welcome and Refreshments**
09:00-09:10	**Welcome to Day 2**
09:10-10:00	**Keynote 2:** 'When evidence isn't enough: Why eating behaviour interventions struggle to work' **Keri McCrickerd**, National University of Singapore. Chair: Marion Hetherington, University of Leeds
10:00-11:00	**Session 5: Schools, adolescents and food education** Chair: Chantal Nederkoorn, Maastricht University Co-chair: Cara Ruggiero, MRC Epidemiology Unit University of Cambridge • Healthy beverages in a sugary world: Dutch adolescents' perspectives - **Rian Pepping**, Public Health Service of Amsterdam (GGD). • Children's acceptance and liking of novel UK-grown beans in primary schools – **Charlotte Hardman**, University of Liverpool. • Effect of the Dutch school-based culinary class 'Kok in de Klas' on cooking competences - **Zoë van der Heijden**, Wageningen University & Research. • How to involve parents in school-based programs: perceptions of parents, schools, and health professionals – **Harriëtte Snoek**, Wageningen University & Research.
11:00-12:00	**Poster session 2 and refreshments** **Themes 4, 5 and 6**
12:00-13:15	**Session 6: Impact of Exposure to Ultra-Processed foods, Sweet taste and high-Fat and Sugar diets and on Health** Chair: Laura Wilkinson, Swansea University. Co-chair: Annicka Flynn, University of Bristol • A systematic review and meta-analysis of RCTs examining the impact ultra-processed vs. less processed food on energy intake and body weight – **Victoria Norton**, University of Liverpool. • Meal texture and eating rate as drivers of energy intake in ultra-processed food diets - **Marieke van Bruinessen**, Wageningen University & Research. • Consuming an unprocessed diet reduces energy intake: A role for human nutritional intelligence? – **Jeff Brunstrom**, University of Bristol. • Effect of dietary sweet taste exposure on glycaemic variability: the SWEET TOOTH study – **Monica Mars**, Wageningen University & Research.

	• Cognitive and behavioural effects of removing high-fat, high-sugar diets in rodents: A meta-analysis – **Simone Rehn**, University of Technology Sydney.
13:15-14:15	**Lunch** **Poster viewing** ***Please remove all posters at the end of this session***
14:15-15:15	**<u>Session 7: Texture, Oral processing & Sensory drivers of Food and Energy intake</u>** Chair: Markus Stieger, Wageningen University & Research Co-chair: Shihui Yu, University of Leeds • Role of texture in eating behaviour in Dutch primary schoolchildren: a naturalistic classroom study – **Gerry Jager**, Wageningen University & Research. • Easier to eat meal textures support faster eating rate and greater daily energy intake in older adults living in care homes - **Dimitra Zannidi**, University of Reading. • Chewing behaviour and food bolus formation during dental transition in school age children - **Léna Nicolle**, Université Bourgogne Europe, Institut Agro, CNRS, INRAE. • Preferred Umami Taste Intensity and Food intake During an Ad Libitum Lunch Meal - **Merel van der Kruijssen**, Wageningen University & Research.
15:15-15:25	**Closing Remarks and Announcement of the 2027 BFDG**

Poster session - organized by themes

Theme 1. Little Bites, Big Impact

Focus: Infant feeding, children's eating behaviour, parenting and feeding practices.

Poster #	Title	Presenter
8	When food feels unacceptable: a longitudinal study of tactile sensitivity, tactile appreciation, and food rejections in preschool-aged children	**Anouk van den Brand,** Maastricht University
9	I See What You Taste: The Influence of Social Learning on Food Acceptance in Children	**Britt Fleischeuer**, Maastricht University
40	"…am I really unhealthy now?" How do 10-15-year-olds interpret messages about eating and body weight?	**Florence Sheen**, University of Leicester
48	A longitudinal person-centered approach to understanding the stability in patterns of parents feeding practices	**Hannah Povall**, Aston University
49	Understanding mealtime priorities of Australian parents with children aged three-to five-years	**Hannah Povall**, Aston University
55	"I'm always very tense": The Experience of Feeding a Child with Avid Appetite Amid Food Insecurity	**Hetal Patel,** Aston University
96	Towards more plant-based food choices in 12–15-year-old adolescents in The Netherlands: motivation, and perceived ability and opportunity before and after a school intervention	**Muriel Verain,** Wageningen University & Research
104	The role of self-serving in children's vegetable consumption	**Rosalie Mourmans.** Maastricht University
108	Recognising and responding to infant appetite cues during feeding – implications of promoting parental sensitivity for parents with high alexithymia	**Shihui Yu,** University of Leeds
113	Expert requirements on picky eating interventions	**Sterre van Arum,** University of Twente
114	Nutritional behaviour experts spill the beans on picky eaters: identifying wants and needs for family-centred solution	**Sterre van Arum,** University of Twente

Theme 2. Sensing, Tasting & Eating

Focus: Taste, smell, texture & Flavour- sensory drivers of food choice and intake.

Poster #	Title	Presenter
17	'When it comes to the Crunch'; How snack texture and processing method influence eating behaviour and calorie intake rate to design healthier snacks	**Cian Sweeney,** University of Leicester
38	Satiating effects and sensory acceptability of an omnivorous home-cooked menu and its ovolactovegetarian alternative in a sample of 50 untrained participants: PORTIONS-V Sensory Study	**Eva Almiron-Roig,** University of Navarra
59	Time your sniff: Does when you smell food matter for how much you eat?	**Jiachun Li,** Wageningen University & Research
63	SweetScope: Sweet taste perceptions in Dutch and UK consumers	**Katherine Appleton,** Bournemouth University
64	Effect of dietary sweet taste exposure on sweet taste liker phenotype, cravings and preferences: secondary outcomes of the Sweet Tooth Trial	**Katherine Appleton,** Bournemouth University
80	Consumer-centric benefits of plain white dairy – a sorting task.	**Louise Snelders-den Uijl,** FrieslandCampina
84	Do texture-based reductions in eating rate work for everyone?	**Marieke van Bruinessen,** Wageningen University and Research
85	A slower natural eating rate for a fixed-caloric load is associated with greater postprandial satiety and enhanced satiety hormone responses in humans	**Zhen Liu,** Wageningen University & Research
92	Development and Validation of the Dutch Taste FFQ, a tool to capture dietary taste exposure	**Merel van der Kruijssen,** Wageningen University & Research
105	Mapping methods to assess taste and smell alterations in children with cancer: a scoping review	**Samia Saraya Jean,** Université Claude Bernard Lyon 1
126	The TASTY Project: Taste Steering and taste and smell training in patients with cancer - two multicenter randomized intervention trials	**Madieke Douma,** University Medical Center Groningen

Theme 3. The Mind Behind the Meal

Focus: Cravings, personality, cognition, decision-making and behavioural traits.

Poster #	Title	Presenter
10	Chronic non-nutritive sweetener and sugar consumption alter decision-making and risk-taking in young healthy adults	**Camille Eustache,** Université Paris-Saclay
22	exploring associations between diet and personality using domain- and nuance-level analyses	**Darina-Eisal Grjaznov**, University of Tartu
30	The impact of visual brand identity on ready meals choice amongst young men.	**Edward Latham,** City St George's University of London
32	Qualitative validation of the Food Neophobia Scale in older adults	**Emmy van den Heuvel,** Maastricht University, Campus Venlo
39	Predicting healthy and unhealthy eating behaviours based on the DEBQ and ecological momentary assessment	**Eva Vanbrabant,** Maastricht University
42	Behavioural inhibitory control during a weight loss intervention in adults with overweight and obesity: Results of the PORTIONS-4 Pilot Study	**Gabriela Robayo Cañizares,** University of Navarra
50	On the Nature of Certainty in Value-Based Evaluations: Disentangling Variability- and Extremity of Experiences	**Harm Veling,** Wageningen University & Research
60	Predictors of food craving strength in individuals with overweight, obesity and healthy BMI: findings of a three-week EMA study.	**Jikke Hesen,** Maastricht University
61	Exploring eating in the context of societal and cultural views of food and weight	**Jordan Beaumont,** Sheffield Hallam University
90	True overlap between personality, BMI, and eating behaviours	**Melian Heinsaar,** University of Tartu
98	Food addiction is conceptualised differently from drug addiction	**Peter Rogers,** University of Bristol
102	Investigating the effects of menstrual cycle phase on food intake: an ecological momentary assessment study.	**Reyanne Alshammari,** University of Liverpool
118	Identifying predictors of weight loss from a diverse set of biological, behavioural, and psychological factors	**Uku Vainik,** University of Tartu

Theme 4. Shaping Food Choices

Focus: Communication, nudges, labelling, social norms and behaviour change strategies.

Poster #	Title	Presenter
13	"Food is not rubbish!" - Tackling food waste in UK primary schools via collaboration and codesign	**Charlotte A. Hardman**, University of Liverpool
21	Enhancing trust in regulators does not affect low-calorie sweeteners consumption	**Cristina Radu,** University of Liverpool
23	From message to mouth: the effects of message framing on willingness to try, and responses toward, insect-based foods	**Datin Shah,** City St George's, University of London
24	Leveraging hedonic psychology, identity theory, and choice architecture to encourage sustainable food choices in mining camps	**David Fechner,** The University of Queensland
51	From intentions to eating behaviour: the role of willingness and social context in a cultivated meat tasting study	**Harmehak Singh,** Liverpool Hope University
57	Evaluation of a healthy lunch pilot in a Dutch elementary school	**Janneke in het Veld,** Wageningen University & Research
66	Examining the impact of nature vs. urban image exposure on perceived restorativeness and healthy food choices.	**Katie Clarke,** University of Liverpool
68	A novel approach to shaping effective school food policies to improve children's healthy eating	**Katie Edwards,** University of Birmingham
69	Coffee shop menu calorie labelling: effects on beliefs, knowledge and behaviour and the role of food choice motives	**Katy Tapper,** City St George's, University of London
70	Communicating carbon: the effects of learning a heuristic on willingness to consider dietary change	**Katy Tapper,** City St George's, University of London
79	Revealing a food's plant-based nature after tasting increases future selection	**Lotte de Lint,** Wageningen University & Research
82	Estimation of food calorie contents and exercise durations required to expend these calorie estimations	**Mariasole Da Boit,** De Montfort University
88	Social norm messages and intentions to eat meat and plant-based meals	**Maxine Sharps,** De Montfort University
100	Randomised controlled trials examining the impact of alcohol calorie labelling on alcohol and energy consumption in the out-of-home food sector	**Rebecca Evans,** University of Liverpool

Theme 5. Food Systems, Sustainability & Society

Focus: Food environment, Sustainable diets, plant-based transitions, food systems and inequalities.

Poster #	Title	Presenter
2	Parental decision making and acceptance of emerging foods for self and child	**Ai Ting, Goh**, University of Otago
3	The emergence of an obesogenic diet: Mapping changes in the macronutrient composition of the UK diet from 1943 to 2019	**Alexandra E. Finnan**, University of Bristol
16	Motion cues against aesthetic bias: improving implicit responses to imperfect produce	**Chenyi Zhu,** University of Leeds
19	Student meals based on bursary status	**Claire Cambriels,** Paris-Saclay University
27	Beyond the parcel: lived experiences of food bank use, wellbeing, and choice in fresh produce engagement	**Dr Alecia Cousins,** Swansea University
45	Food insecurity predicts addiction like eating—but this relationship does not appear to be mediated by diet quality	**Greg Keenan**, Liverpool John Moores University
65	Is Knowledge Enough? Understanding Public Engagement with Healthy Sustainable Eating in the UK	**Katherine Appleton,** Bournemouth University
71	Consumer preference for nettles ('Urtica Dioica'): a choice-based conjoint experiment with UK consumers	**Laura Wilkinson,** Swansea University
75	Navigating the social world of (m)eating: Towards a theory and validation framework of egocentric social influence on animal-based food consumption in Dutch youth	**Leonie Muriel Tuxhorn,** Radboud University
89	Experiences impacting uptake and use of the healthy start scheme: a systematic scoping review and systems mapping approach	**Megan Jarman,** Aston University
97	Co-designing for effectiveness and success: stakeholder perspectives on two fruit and vegetable interventions in social housing communities	**Nat Taylor,** University of Liverpool
99	Pro-animal or pro-plant? A multi-country consumer segmentation and profiling on willingness to pay for animal- versus plant-based meat and dairy products.	**Rachelle, de Vries,** Unilever Foods Innovation Centre Wageningen
115	How do current meat reducers in the action stage, those in the maintenance stage and former meat reducers differ from one another?	**Sunghwan Yi,** University of Guelph
121	Assessment of dietary chemical exposure in European adults across three dietary scenarios: integrating food safety with nutrition and sustainability	**Xinxin Wang,** Wageningen University & Research

Theme 6. Measuring Diet & Metabolic Responses

Focus: Methodological innovation, metabolic responses, physiology and nutrition research tools.

Poster #	Title	Presenter
15	The effectiveness and feasibility of a ketogenic diet for reducing psychosis symptomology.	**Charlotte McCracken**, Liverpool John Moores University
25	Dietary assessment at the Division of Human Nutrition and Health	**Desiree Lucassen**, Wageningen University & Research
31	Effect of dysphagia thickeners intake on satiety and postprandial blood glucose	**Elena Martínez,** Instituto de Agroquímica y Tecnología de los Alimentos, CSIC
34	Influence of Sushi Meal Configuration and Nutrient Profile on Postprandial Glycemia	**Ena Kawamoto,** Zensho Central Institute for Science and Technology
37	Innovating dietary intake assessment with hyperspectral imaging; the role of neural networks and spectral unmixing	**Esther Kok,** Wageningen University & Research
41	'Trays and Tribulations': Using automated weight-based meal tracking to measure eating behaviours and ad libitum meal intake	**Florian Walter**, Wageningen University & Research
54	From diagnosis to network dynamics: omega-3 reconfigures sleep–behaviour coupling in children with neurodevelopmental traits	**Hayley Anne Young,** Swansea University
62	Factors associated with weight loss success: An umbrella review and the DELTA Grid taxonomy	**Kari Kuulman,** University of Tartu
76	Reliability and repeatability of a Novel Scale assessing enablers and barriers of Indigenous Fruit and Vegetable consumption for Uganda	**Lilian Nakayiki Nyanzi**, KU Leuven
77	How methodology shapes knowledge on emerging adults' cooking competence	**Line Rossen,** Aarhus University
93	Usability study of myfood24 in Mexican children and adolescents	**Milca Vidal,** University of Leeds
94	Energy and nutrient intake in children and adolescents of northern Mexico	**Milca Vidal,** University of Leeds
111	Dietary fat and sugar consumption is associated with perceived health of fast-food brand logos	**Simone Rehn,** University of Technology Sydney
122	Is tofu a viable alternative to eggs as part of breakfast? Evidence from a randomized crossover study	**Yaren Aray**, Istanbul Esenyurt University
125	Body shape concern is partially explaining the relationship between autistic traits and disordered eating	**Jennifer Gatzemeier,** Swansea University

Abstracts (in alphabetical order by presenter surname)

Satiating effects and sensory acceptability of an omnivorous home-cooked menu and its ovolactovegetarian alternative in a sample of 50 untrained participants: PORTIONS-V Sensory Study

Diego Messina, Alejandro Toribio, Gabriela Robayo, Iosune Zubieta, Roncesvalles Garayoa, Eva Almiron-Roig*

** Center for Nutrition Research, University of Navarra, 31008 Pamplona, Navarre, Spain; ealmiron@unav.es*

Keywords: Expected satiety, Food satisfaction, Home-cooked meal, Meat-free alternative

Strategies to re-educate the public on healthy cooking are needed to balance the overconsumption of energy-dense, palatable foods that escape the satiety cascade. This study compared the short-term perceived satiety and sensory acceptability of an omnivorous versus an ovolactovegetarian (OLV) self-cooked menu in a real-life setting. Fifty untrained adults (18–75 years) prepared and consumed at home either a meal including roasted chicken, couscous, salad, and apple or stewed lentils with ratatouille, soybean sprouts, mozzarella cheese, and banana with yogurt. Both menus were designed based on official dietetic guidelines including the Healthy Plate model. Participants received cooking instructions plus all the ingredients and completed on-line visual analogue scale ratings (0–100 points) for pre-meal hunger/fullness and first impressions (appearance, smell, liking, expected satiety), plus postprandial hunger/fullness, satisfaction, difficulty level and desire for repeated consumption. Data from 49 participants (n = 25 omnivorous menus; n = 24 OLV menus) were analysed. Both menus significantly reduced hunger and increased fullness vs. pre-meal values ($p < 0.001$). There was no group difference in postprandial fullness after adjusting for BMI and baseline hunger, but the omnivorous meal received higher mean (±SD) liking scores (80 ± 11 vs. 71 ± 17; $p < 0.05$). No differences were observed between groups in the level of difficulty. Liking strongly correlated with satisfaction in both groups (rho = 0.78 and 0.63; $p < 0.001$ and $p < 0.05$, respectively), as well as desire to repeat (rho = 0.90 and rho = 0.75; $p<0.001$). Pre-meal expected satiety predicted post-meal expected satiety only in the OLV group (rho = 0.55; $p < 0.05$). Our plant-based meal induced satiety and sensory acceptance levels comparable to a conventional omnivorous meal, suggesting that meat-free alternatives can support diverse, healthy dietary patterns without compromising consumer satisfaction. Research funded by the Government of Navarra (PC24-PORTIONS-V-007-002).

Appetite publication preference: This abstract will be published in Appetite.

Investigating the effects of menstrual cycle phase on food intake: an ecological momentary assessment study.

Reyanne Alshammari*, Jasmine Warren, Paul Christiansen, Charlotte A. Hardman, Joanne Harrold

** Department of Psychology, Liverpool, UK, L69 7ZA; reyanne.alshammari@liverpool.ac.uk*

Keywords: Menstrual cycle phase, combined oral contraceptive, Food intake, Ecological momentary assessment

This study used Ecological Momentary Assessment (EMA) to explore associations between menstrual cycle phase and food intake. Across one menstrual cycle, participants were sent 4 prompts a day across 3 days, during each of the 4 phases of the cycle. Participants completed multiple questionnaires throughout. Data was analysed in R using a multilevel multivariate linear regression model (n = 30). A 2-level model (persons within days) alongside the predictors and covariates fit the data better than single or 3-level models (assessments within days within participants); $\Delta\chi^2(12) = 67.33$, $p < .001$ (AIC = 44). In the mixed-effects model predicting calorie intake, there was a significant main effect of phase ($F(3, 780) = 11.58$, $p < .001$) but effect of cycle (naturally cycling and contraceptive users) was non-significant ($p = .249$). There was a significant phase*cycle interaction ($F(3, 776) = 4.26$, $p = .005$). Follow up pairwise comparisons revealed that calorie intake was significantly higher in the mid follicular phase compared with the mid luteal phase ($p = .017$) and with the peri ovulatory phase ($p < .001$). It was also greater in the peri-menstrual phase compared with the peri-ovulatory phase ($p < .001$). No further significant differences were detected. Follow up pairwise comparisons for the interaction indicated no significant difference in calorie intake between naturally cycling and contraceptive users in any phase. The findings, using improved methodology to (i) assess food intake, (ii) define four phases and (iii) include a control group (combined oral contraceptive) contradict previous literature which reports higher energy intake in the luteal phase.

Appetite publication preference: This abstract will be published in Appetite.

Sweet-Scope: Sweet taste perceptions in Dutch and UK consumers

Leoné Pretorius, Eva M Čad, Monica Mars, Janet James, Katherine M Appleton*

** Department of Psychology, Faculty of Science and Technology, Bournemouth University, Poole House, Fern Barrow, Poole, BH12 5BB, UK; k.appleton@bournemouth.ac.uk*

Keywords: Sweet taste, Cross-cultural, Liking, Preference

The degree of liking for sweet taste and most preferred concentration level can vary across individuals and populations. To test the generalisability of sweet taste perceptions to another population, this study replicated previous work from the Netherlands (NL) in a United Kingdom (UK) sample. Twenty-nine adults (12 male, aged 18–35, BMI 18.5–30 kg/m^2) were demographically matched to the NL sample (N=28). Participants evaluated three familiar and three unfamiliar sweet-tasting foods, two liquid, two semi-solid and two solid. Each food was presented at five sweetness concentration levels, and served in a randomised, blinded order. Primary outcomes were liking (0–100), preference (ranked 1–5) and most preferred sweet taste concentration level. Using linear mixed ANOVA, liking scores were comparable between populations ($\chi^2(1)=0.11$, $p=0.74$), with familiar foods liked more than unfamiliar foods over all concentrations ($t(1635)=7.86$, $p<0.001$), and solid foods liked more than semi-solids and liquids ($\chi^2(2)=88.93$, $p<0.001$). In preference rankings ($F(1,5490)=0.13$, $p=0.72$), differences between populations were found only at the highest sweet taste concentration, where this sample was less preferred in the NL compared to the UK ($t(53.2)=-4.62$, $p<0.001$). Most preferred sweet taste concentration level did not differ between populations (Fisher's Exact; $p=0.38$). The study provides valuable evidence that sweet taste perceptions are comparable between the UK and the Netherlands, for the specific foods and concentrations tested here, although differences based on measurement type, along with test-food-specific interactions were also found.

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Effect of dietary sweet taste exposure on sweet taste liker phenotype, cravings and preferences: secondary outcomes of the Sweet Tooth Trial

Eva M Čad, Leoné Pretorius, Merel van der Kruijssen, Claudia S Tang, Hanne BT de Jong, Monica Mars, Katherine M Appleton*, Kees de Graaf

** Department of Psychology, Faculty of Science and Technology, Bournemouth University, Poole House, Fern Barrow, Poole, BH12 5BB, UK; k.appleton@bournemouth.ac.uk*

Keywords: Diet intervention, Sweet taste, Sweet liker phenotype, Food cravings

Modifying the overall taste of the diet may influence food preferences and cravings. This work presents some secondary outcomes from the SWEET TOOTH Trial (www.clinicaltrials.gov NCT04497974). Using a parallel-groups randomised controlled intervention study, 180 healthy adults (F|M: 123|57; aged: 35±15y. BMI: 23±3kg/m2) were provided with ~50% daily energy needs and dietary advice for 6 months, where 7% (LSE, n=61), 35% (RSE, n=60) or 80% (HSE, n=59) provided foods and beverages were sweet tasting, from sugars, low-calorie-sweeteners, fruits and dairy. At baseline, month 1, 3, and 6, and at a 4-month follow-up, sweet taste liker phenotype was assessed in the laboratory, and sweet food cravings and sweet and sweet-fat preferences were assessed by self-report questionnaires. Sweet taste liker phenotype score, sweet food cravings, and preferences for sweet and sweet-fat foods were not influenced by dietary sweet taste exposure; no group × time interaction effects were observed from baseline to month 6 for any of the outcomes: sweet liker phenotype score ($\chi^2(10)=12.6$, p=.25), sweet food cravings ($\chi^2(10)=10.9$, p=.36), self-reported preferences for sweet ($\chi^2(10)=5.9$, p=.82) and sweet-fat ($\chi^2(10)=10.6$, p=.39) foods. These findings demonstrate that a low or high exposure to sweet-tasting foods for 6 months does not alter these outcomes. Our findings support the main results of the Sweet Tooth Trial, that advice to reduce exposure to sweet-tasting foods is unlikely to influence liking or preferences for sweet foods.

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Is Knowledge Enough? Understanding Public Engagement with Healthy Sustainable Eating in the UK

Danielle J Guy, Jeffery Bray, Katherine M Appleton*

** School of Psychology, Faculty of Media, Science, and Technology, Bournemouth University, BH12 5BB, United Kingdom; k.appleton@bournemouth.ac.uk*

Keywords: Healthy Sustainable Diets, Dietary Behaviour, Public Perceptions

Sustainable dietary patterns support population health while reducing environmental pressures, yet public engagement with recommended actions remains inconsistent. This study examined knowledge, perceived importance, current engagement, and willingness to adopt a range of healthy sustainable dietary actions, e.g., 'swap any beef, lamb or pork intake for chicken', among adults in the UK. A cross-sectional online survey was completed by 635 participants (205 males, 430 females; mean (SD) age 43 (16.8) years). Familiar, health-oriented sustainable dietary actions were associated with higher knowledge, perceived importance, and uptake, whereas actions with a stronger environmental focus that were less conventional or culturally familiar were less well known, valued, or practiced. Willingness to adopt dietary actions not currently undertaken was most strongly associated with perceived importance (smallest $\beta = 1.21$, $p < .001$), with perceived personal value also emerging as a significant predictor for several actions (smallest $\beta = 0.86$, $p < .001$). In contrast, knowledge and perceived impact showed limited associations with willingness to change. Demographic and lifestyle factors had comparatively smaller effects, with greater willingness observed among younger participants (smallest $\beta = -0.24$, $p = .01$) and those with higher educational attainment (smallest $\beta = 0.51$, $p = .01$). These findings indicate that while awareness of sustainable dietary practices exists within the UK population, motivational factors related to personal relevance and value may play a more influential role in shaping engagement with healthy sustainable eating than knowledge alone. Interventions aiming to promote healthy sustainable diets may therefore benefit from strategies that emphasise personal meaning and perceived benefits across the population.

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Is tofu a viable alternative to eggs as part of breakfast? Evidence from a randomized crossover study

Yaren Aray*, Eva Almiron-Roig, Irem Kaya Cebioglu

** Department of Nutrition and Dietetics, Faculty of Health Sciences, Istanbul Esenyurt University, 34510 Istanbul, Türkiye; yarenaray@esenyurt.edu.tr*

Keywords: Plant-based protein, Satiating capacity, Sensory analysis, Sustainability

Although animal protein sources such as eggs are nutritionally rich, there is a need for increased acceptance of plant-based protein alternatives that provide similar nutritional value and satiety. This randomized crossover study compared food neophobia, satiating capacity, and sensory characteristics of a tofu vs. a conventional version of menemen, a traditional Turkish breakfast recipe containing eggs, tomatoes, peppers and onions. Menemen with tofu (MWT) contains 145 grams of silken tofu to match the amount of protein from eggs, while menemen with egg (MWE) contains 60 grams of eggs. Menemen prepared with either silken tofu, plant-based protein source, or eggs was consumed by 34 university staff in Istanbul. Satiety was assessed using a 100-mm Visual Analog Scale (VAS), while food neophobia was evaluated using Food Neophobia Scale (FNS). Sensory characteristics (taste, texture) were measured using post-tasting sensory evaluation form. VAS assessments were administered at seven points: 0 (baseline), 15, 30, 60, 90, 120, and 180 minutes after breakfast. Baseline hunger and fullness levels were similar before both meals; however, at 15 and 120 minutes postprandially, MWE resulted in significantly lower hunger and higher fullness levels ($p<0.05$) compared with the tofu version. Sensory analysis scores did not differ significantly (p>0.05). No significant correlation was observed between FNS scores and sensory variables (p>0.05). In conclusion, an egg-based breakfast provided longer-lasting satiety than a comparable plant-based version up to 2 but both versions were equally acceptable and satisfactory. Culturally adapted plant-based breakfast alternatives, such as tofu menemen might support more sustainable dietary practices.

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Exploring eating in the context of societal and cultural views of food and weight

Jordan Beaumont*, Beverley O'Hara

** Sheffield Hallam University, Sheffield, UK, S1 1WB; j.beaumont@shu.ac.uk*

Keywords: Weight stigma, Weight bias, Eating behaviour, Disordered eating

Experiencing weight stigma impacts both physical and mental health and may contribute to disordered eating and poor body image. Weight-based stigma is prevalent across a range of settings, often fuelled by cultural and societal views and norms. In this work, participants completed an online survey (n = 207; 35 ± 15 years, 80% female) and follow-up semi-structured interview (n = 16) exploring their experiences of weight stigma and disordered eating in different cultural and social settings. Food was seen as symbolic of the individual, holding significance as an indicator of social and cultural identity and financial success. Participants felt judged within society, leading to heightened self-judgement as well as feelings of shame, anxiety and reduced confidence. These were associated with heightened disinhibition, loss of control over eating, binge eating and weight cycling; these behaviours were described as 'self-soothing' and reinforced as normal responses to receiving stigma. No differences in experiences of weight stigma were observed when comparing across cultural identity. Results from the qualitative analysis suggest common tensions between traditional and modern cultural standards and expectations, creating conflicts regarding what is deemed 'appropriate' or 'correct' behaviour. In particular, perceived pressure to conform with messages portrayed in mass and social media were associated with greater guilt around eating and disinhibited eating. Together, these data highlight the significance placed on food as an indicator of status and success, suggesting weight stigma is exacerbated in the social and cultural contexts where individuals are deemed to be failing to match ideals. This may result in the normalisation of disordered eating in efforts to meet societal and cultural expectations.

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Consumer perceptions of hybrid cheese: Effects of labelling on sensory attributes and consumer beliefs

Annelies E. Blok*, Tessa M.P. Bussemakers, Markus Stieger

** Wageningen University & Research, Food Quality and Design group, Postbox 17, 6700 AA Wageningen, The Netherlands; annelies.blok@wur.nl*

Keywords: Hybrid dairy, Labelling, Consumer beliefs, Sensory perception

Hybrid foods, in which part of the animal-based ingredients is replaced by plant-based ingredients, offer a promising approach to reduce the environmental footprint of high-impact products such as cheeses. Little is known about how consumers perceive these products or how labelling shapes their perceptions. This study examined how presenting cheese as "hybrid" influences sensory perception and consumer beliefs. Eighty-two Dutch consumers tasted six commercially available cheeses (three dairy, three plant-based). Each cheese was presented twice: once with a congruent label (dairy or plant-based, matching the product) and once with a '50% plant-based, 50% dairy' label. Each packaging displayed the product name and an icon depicting a cow, a plant, or a combined cow–plant symbol, respectively. Half of the participants (n = 40) assessed consumer beliefs (liking, naturalness, healthiness, environmental and animal friendliness), while the other half evaluated sensory perceptions using a Rate-All-That-Apply approach (n = 42). Dairy cheeses were perceived as more natural, whereas plant-based cheeses scored higher on environmental and animal friendliness. Labelling of the cheeses affected consumer beliefs. When labelled as '50% plant-based, 50% dairy', perceived naturalness decreased for dairy cheeses but increased for plant-based cheeses. In contrast, perceived animal and environmental friendliness increased for dairy cheeses and decreased for plant-based cheeses. Labelling did not affect healthiness or liking, and dairy cheeses were consistently preferred over plant-based cheeses. Sensory perception was driven by intrinsic product attributes and was unaffected by labelling. In conclusion, consumer beliefs were affected by labelling. However, labelling cheeses as '50% plant-based, 50% dairy' did not influence sensory perception, which was determined by the products' intrinsic properties rather than labelling. Overall liking was driven solely by sensory cues and was unaffected by labelling. This highlights that labelling alone is insufficient to increase acceptance of hybrid products when sensory quality does not meet consumer expectations.

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Consuming an unprocessed diet reduces energy intake: A role for human nutritional intelligence?

Jeffrey M. Brunstrom*, Mark Schatzker, Peter J. Rogers, Annika N. Flynn

** Nutrition and Behaviour Unit, School of Psychological Science, University of Bristol, 12a Priory Road, Bristol, BS8 1TU, UK; jeff.brunstrom@bristol.ac.uk*

Keywords: Macronutrients, Micronutrients, Ultra-processing

In 2019, Hall et al. reported an RCT showing that an ultra-processed diet increases energy intake by ~500 kcal/ d compared with an unprocessed diet. In a recent data reanalysis, we looked at the individual 'meal components' that participants selected and consumed, and how these choices limited energy intake in the unprocessed diet. We observed two key outcomes. First, participants tended to select unprocessed lunch and dinner meal components that had a less-equal blend of energy derived from fat and carbohydrate (lunch, $p< 0.0001$; dinner, $p< 0.0001$), and these formed meals that were also of a less-equal blend than in the ultra-processed diet (lunch, $p< 0.001$; dinner, $p< 0.001$). Second, with the unprocessed diet, participants preferentially chose low-energy-dense components (<1.0 kcal/g, mostly fruits and vegetables), creating meals lower in energy (unprocessed = 719.4 ± 11.6 kcal, ultra-processed = 829.5 ± 12.51 kcal, $p < 0.001$), yet significantly larger (57%) by mass (unprocessed = 665.5 ± 10.74 g, ultra-processed = 423.5 ± 8.03 g, $p < 0.001$). When both factors are modelled simultaneously, observed energy intakes are strongly correlated with predicted intakes ($r = 0.78$, $p < 0.001$). Our results also indicate that, had participants avoided low-energy-dense unprocessed components, micronutrient insufficiencies would likely have developed. One interpretation is that unprocessed meals reduce energy intake because: 1) they have a less balanced carbohydrate-fat blend; and 2) they promote a food-choice strategy whereby a compromise is struck between consuming calories and consuming micronutrients, which we refer to as 'micronutrient deleveraging.'

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Student meals based on bursary status

Claire Cambriels*, Molly Magnier, Pierre Levasseur, Olga Davidenko

** Campus Agro Paris-Saclay, 22 place de l'Agronomie, 91120 Palaiseau; Claire.cambriels@inrae.fr*

Keywords: Meat reduction, University catering

Meat reduction is advocated in Western countries. University catering is a way to introduce students to a more plant-based diet, however socioeconomic disparities must be taken into account. We analysed nutritional content of meals in four university restaurants during regular days (menu with 1 vegetarian option) or 100% veggie days. FSA scores were calculated to estimate nutritional quality of the foods. Overall FSA score of the meal was calculated as the weighted average. The sample included 769 students, among which 296 (38%) declared to receive a government bursary (B) based on household income. On regular days, bursary students selected higher energy density meals compared to non-bursary students (170.01±56.84 vs 158.19±50.95 kcal/100g, p=0.002), with a higher energy density in main courses (160.37±58.6 vs 152.02±57.94 kcal/100g, p=0.033) and desserts (193.33±125.90 vs 155.94±113.06 kcal/100g, p<0.001). Bursary students chose meals with higher FSA scores (3.22±2.96 vs 2.66±2.97, p=0.004), particularly in desserts (9.07±7.96 vs 6.39±7.55, p<0.001). On 100% veggie days, bursary students still selected higher-energy density meals (168.98±55.49 vs 159.16±52.37 kcal/100g, p=0.016), which was due to higher-energy starters (120.25±75.13 vs 101.74±64.84 kcal/100g, p=0.018), and desserts (186.61±126.16 vs 159.46±113.41 kcal/100g, p=0.009) but not main dishes. There was no difference in the meal FSA score (2.91±3.55 vs 2,37±3,13, p=0,073), although bursary students chose desserts with higher FSA (8.44±7.78 vs 6.43±7.37, p=0.001). Bursary students chose meals with higher protein intake, especially from starters (5.90 ± 5.58 vs 4.40 ± 4.75, p=0.009). 100% veggie days resulted in lower socioeconomic-related disparities in nutritional quality, highlighting the importance of university catering for healthier and more sustainable diets for all.

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Full of it? Comparison of subjective and MRI-based assessment of gastric fullness in free-living adults

Guido Camps*, Monica Mars, Peter Rogers, Paul A.M. Smeets

** Droevendaalsesteeg 4, 6708 PB Wageningen; guido.camps@wur.nl*

Keywords: Gastric fullness, Magnetic resonance imaging, Interoception, Appetite regulation

Understanding how subjective feelings of fullness relate to actual gastric content volume (GCV) may inform strategies to reduce food intake, but the relation between GCV and perceived fullness is understudied. This cross-sectional study examined the association between perceived and actual gastric content volume, using magnetic resonance imaging (MRI) to measure GCV. In addition, effects of interoceptive awareness of this relation were explored. Recruitment was open to healthy adults without gastro-intestinal and MRI contra-indications. Participants were invited for 15-minute sessions between noon and 6pm without dietary instructions to maximize natural variation in GCV. In total, 84 healthy adults (age 26.9±9.7y; BMI 22.7±3.0kg/m^2; 17 males) completed appetite ratings, a 24-h dietary recall, and the Multidimensional Assessment of Interoceptive Awareness (MAIA) questionnaire. Gastric content volume was estimated subjectively using a visual analogue scale, followed by MRI measurement (219±169mL). Perceived gastric fullness ratings showed a moderate association with MRI-measured GCV (R^2 = 0.34). Desire to eat and time since last meal were also independently associated with GCV (R^2 = 0.286 and R^2 = 0.17), while interoceptive awareness trait measures contributed little (R^2 = 0.008). In backward stepwise regression models, perceived gastric fullness, desire to eat, time since last meal, and sex together explained nearly half of the variance in GCV (R^2 = 0.49). These findings indicate that MAIA measures may not discriminate between those more and less capable of sensing GCV and that simple subjective appetite ratings combined with dietary recall provide an indication of GCV.

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Behavioural inhibitory control during a weight loss intervention in adults with overweight and obesity: Results of the PORTIONS-4 Pilot Study

Gabriela Robayo*, Martín Martínez, Elkin O Luis, Iryna Rachyla, Eva Almiron-Roig

** Center for Nutrition Research, University of Navarra, 31008 Pamplona, Navarre, Spain; grobayoc@unav.es*

Keywords: Inhibitory control, Weight loss, Portion size, Go/No-Go paradigm

Weight loss interventions featuring portion control strategies are widely used to improve eating behavior, but their potential influence on the cognitive processes involved in food intake regulation remains poorly evaluated. The aim of this study was to explore whether a self-applied weight management intervention based on portion control modified behavioral inhibitory control after six months. Twenty-two adults (59% female) with overweight or obesity completed a behavioral weight management program. Inhibitory control was assessed at baseline and after six months using a visual Go/No-Go paradigm comprising two tasks presented in randomized order: one using food-related images (high- and low-calorie foods) and another using non-food images (exercise and grooming items). Commission and omission errors, as well as reaction time, were compared across visit time (pre vs post intervention) and stimulus type (food vs non-food; high- vs low-calorie) using repeated-measures factorial models. Irrespective of visit time, participants exhibited fewer commission errors and faster reaction times in response to food compared with non-food stimuli: for No-Go commission errors Δ= −0.0204 % points, 95% CI [−0.0343, −0.0065], p=0.0046 (d= −0.64, 95%CI [−1.09, −0.19]); for Go reaction time Δ= −0.538 s, 95% CI [−0.591, −0.485], p<0.0001 (d= −4.37, 95%CI [−5.20, −3.35]). No significant effects of visit time on commission errors or omissions (p≥0.43), and no significant stimulus type × visit time interactions were observed for any behavioral outcome (p for interaction ≥0.13). The more efficient processing of food-related stimuli, achieved without compromising inhibitory performance, suggests increased salience of food cues in this sample. The absence of significant pre–post differences further indicates that the intervention may not have directly targeted basic inhibitory mechanisms, but rather operated through compensatory behavioral strategies that reduce reliance on cognitive inhibition in everyday eating contexts. Research funded by the Government of Navarra (PC139–140 PORTIONS-4) and CIBEROBN (CB12/03/30002), ISCIII (Spain).

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Examining the impact of nature vs. urban image exposure on perceived restorativeness and healthy food choices

Katie Clarke*, Thomas Gough, Charlotte A. Hardman

**Department of Psychology, University of Liverpool, Liverpool, United Kingdom, L69 7ZA;*
Katie.Clarke@liverpool.ac.uk

Keywords: Nature exposure, Perceived restorativeness, Healthy food choices

Nature exposure provides numerous physical and psychological benefits, including the restoration of cognitive resources. Emerging evidence suggests that it may also promote healthy food choices, though the underlying mechanisms remain largely unexplored. This pre-registered study examined whether perceived restorativeness (the perceived potential of an environment for restoring cognitive resources) mediates the effect of nature image exposure on healthy food choices. A total of 920 adults (M age = 39.53 y, SD = 15.65, 53.8% female) participated in an online between-subjects experiment, viewing an image of either a natural or an urban scene for 30 seconds. They then completed a food choices task – selecting one beverage, one main course and one side dish for lunch (each from four options; two healthy, two unhealthy), before completing the perceived restorativeness scale. A conditional logistic regression (stratified by participant × category) revealed a significant main effect of healthiness on food choice ($B = 0.58$, $z = 14.49$, $p < .001$), indicating that healthy foods were more likely to be chosen overall. There was also a significant healthiness × image exposure interaction ($B = 0.33$, $z = 4.16$, $p < .001$), indicating that this preference was stronger after nature (vs. urban) image exposure. A causal mediation analysis (aggregated at the participant level) further revealed a significant indirect effect of nature (vs. urban) image exposure on healthy food choices through perceived restorativeness (ACME = 0.77, 95% CI [0.24, 1.44], $p = .034$), indicating partial mediation. These findings suggest that nature image exposure can increase healthy food choices, in part by increasing perceived restorativeness.

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Facilitators and barriers to adopting plant-based diets in childhood: UK parents' perspectives

Alice A. Coffey*, Robert Lillywhite, Oyinlola Oyebode

* *Institute of Advanced Study, Zeeman Building, University of Warwick, Coventry, CV4 7AL, United Kingdom; a.coffey@outlook.com*

Keywords: Food policy, Parent perspectives, Childhood nutrition, Sustainability

The UK faces multiple public health challenges, including climate change impacts and rising levels of childhood obesity and micronutrient deficiencies. Dietary change can help address these challenges. Plant-based (PB) diets are associated with environmental benefits and can meet nutritional requirements when appropriately planned. For dietary policies targeting children to be effective, parental perspectives must be understood. This study explored UK parents' views on the facilitators and barriers to adopting healthy and sustainable diets in childhood. Participants were recruited via social media using convenience sampling to participate in semi-structured interviews. Twenty-seven parents of children aged 2–12 years living in the UK were included, following vegan (n=9), vegetarian (n=9), or omnivorous (n=9) diets. Interviews were analysed thematically using NVivo, with themes organised using an ecological framework. At the individual level, parents expressed various views. Some reported confidence in PB diets meeting nutritional needs, while others raised concerns regarding nutritional adequacy. Advice from healthcare professionals was described as inconsistent, with limited trust due to perceived gaps in knowledge. At the social level, family and peer influences shaped children's diets. Some parents felt supported, while others experienced resistance, alongside concerns about children's social exclusion. At the environmental level, access to PB foods was identified as a barrier, particularly in rural areas and when eating out. Schools were frequently highlighted due to restrictive food policies and limited PB options. At the macrolevel, parents reported a lack of clear NHS guidance on PB diets for children. Perceived higher costs of PB diets, particularly meat alternatives, were also noted. Despite increasing acceptance of PB diets, barriers remain across multiple levels that hinder their adoption in childhood. Improved access to reliable, evidence-based guidance and improvements to school food environments are essential. Engaging parents as key stakeholders will be critical in shaping child nutrition and sustainability policies.

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Beyond the parcel: lived experiences of food bank use, wellbeing, and choice in fresh produce engagement

Alecia L. Cousins*, Hayley A. Young, Rachael Vassor

** School of Psychology, Swansea University, Swansea, SA2 8PP, UK; a.l.cousins@swansea.ac.uk*

Keywords: Food insecurity, Wellbeing, Lived experience, Participatory research

Food insecurity is an escalating public health concern, with increasing numbers of individuals and families relying on food bank support. As food bank reliance shifts from emergency support to a long-term survival strategy, understanding the user experience is vital for improving public health outcomes. This study aimed to explore the experience of food bank use, the impact of "wraparound" support on wellbeing, and the barriers and facilitators to engaging with provided food, particularly fresh produce. The overarching aim was to provide an evidence base for subsequent work to develop best practice in the food bank setting and increase availability and uptake of fresh produce in this context. Working in collaboration with a local food bank charity, we adopted a participatory, qualitative approach to conduct four focus groups with 11 participants (7 females, 64%; 4 males, 36%), consisting of community members with lived experience (n=8) and food bank volunteers (n=3). Thematic analysis identified four key themes: 1) crossing the threshold and the role of a non-judgmental welcome in mitigating feelings of shame; 2) the centrality of relational connection, positioning the food bank as a gateway to wider systemic support; 3) the impact of pre-packed parcels on user agency and preference for choice-based models to restore autonomy; and 4) cooking confidence, literacy, and mental energy as critical factors shaping engagement with fresh produce. Findings suggest that food banks provide essential psychosocial support that exceeds simple nutritional supplementation. To improve user outcomes, provision should transition toward choice-led models and wraparound services that address both the emotional and practical complexities of food insecurity.

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Estimation of food calorie contents and exercise durations required to expend these calorie estimations

Mariasole Da Boit*, Anna Riley, Theodore Parthymos

* *School of Allied Health Sciences, De Montfort University, Leicester LE1 9BH, United Kingdom; mariasole.daboit@dmu.ac.uk*

Keywords: Calories, Estimation, Exercise

Obesity has reached epidemic proportions worldwide, and is estimated to cost the National Health Service around £6.5 billion annually. Although weight loss is traditionally pursued through caloric restriction and increased physical activity, outcomes are often limited due to inaccurate estimation of energy intake and expenditure. This study aimed to assess how accurately participants could estimate food calorie contents and the exercise duration required to expend these estimated calories, and to explore the cognitive processes underlying these estimations. In a cross-over design, 25 participants (23±4 years, BMI 23.3±2.7 kg/m^2) completed the study. Participants initially completed an International Physical Activity Questionnaire (IPAQ) and two cognitive tests: Backwards Digit Span Test (BDST) and Symbol Digit Modalities Test (SDMT). Participants then estimated the caloric content of four food images (spaghetti: 348 kcal, crackers: 122 kcal, apple: 78 kcal, and cookie: 97 Kcal) presented in a randomised order, followed by a 3- minute walk or jog (also randomised) at a self-selected pace. After each bout of exercise, participants estimated the exercise duration required to expend the estimated calories and the cognitive tests were repeated. Participants overestimated ($p<0.01$) the caloric content of spaghetti (528±215 Kcal) and crackers (185±115 Kcal), with a grater estimation error observed for spaghetti ($p<0.01$). In contrast, the estimated walking and jogging durations were accurate across all foods (p>0.05). No significant relationship was observed between cognitive performance and estimations of calorie content and exercise duration. Our findings showed reduced accuracy in some food calorie estimations, and unexpectedly great accuracy in estimating exercise durations to burn the estimated calories.

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Does reducing the visibility of meat promotions influence purchasing behavior? A supermarket field experiment

Lotte de Lint*, Rachelle de Vries, Merije van Rookhuijzen, Gerrit Gort, Emely de Vet

** Droevendaalsesteeg 4, 6708 PB Wageningen, Netherlands; lotte.delint@wur.nl*

Keywords: Protein transition, Choice architecture, Supermarket intervention, Meat promotions

Supermarkets have a major influence on what foods people buy and therefore function as a good starting point for increasing plant-based product sales and reducing animal-based purchases for health and environmental reasons. We studied how in-store choice architecture can support this transition. A field experiment was conducted with a Dutch national supermarket chain at 10 intervention and 10 control stores. During eleven weeks, promotional visibility of fresh meat products was reduced, while in some weeks additional communication activating plant-based eating goals was present. Effects on sales of meat and plant-based alternatives within and beyond the targeted section were monitored. Lowering the visibility of meat promotions significantly decreased animal-based protein sales in the targeted section by 4.7% by weight, and by 6.4% with additional communication (no statistical difference between conditions). Sales of plant-based proteins showed no significant changes (+1.6% and 0.0%). Total store revenue remained unaffected by the interventions. Interviews revealed that most shoppers did not consciously notice the interventions, yet when informed, they expressed broad support with limited resistance. These findings suggest that reducing the visibility of meat promotions can shift purchasing behavior without harming short-term commercial performance or customer perceptions. However, both intervention conditions showed sizable (non-significant) increases in animal-based purchases elsewhere in the store. These potential spillovers underscore the need to monitor cross-category impacts of store changes. Because observed reductions in purchasing of animal-products remain modest, the evaluated interventions must be integrated into a broader strategy of increasing opportunities for plant-based purchases while reducing those for animal-based ones.

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Revealing a food's plant-based nature after tasting increases future selection

Lotte de Lint*, Žan Mlakar, Rachelle de Vries, Jan-Willem Bolderdijk, Emely de Vet

** Droevendaalsesteeg 4, 6708 PB Wageningen, Netherlands; lotte.delint@wur.nl*

Keywords: Plant-based meat alternatives, Spillover, Taste experience, Field experiment

Plant-based meat alternatives face a perception problem: sceptics won't try them because they expect plant-based to taste bad. But what if they tried them first? To address this challenge, we investigated whether a great taste experience could overcome negative preconceptions of plant-based meat alternatives. At a festival, 889 participants ate a tasty plant-based version of a traditionally meat-based snack. Participants who afterwards learned the snack was plant-based were 37% more likely to choose a plant-based option on a later occasion than naive participants. This effect was particularly pronounced among men and individuals whose experience of the plant-based snack exceeded their general perceptions of plant-based meat alternatives. These findings suggest that direct exposure to highly liked plant-based meat alternatives can correct negative taste expectations and increase future plant-based selection among sceptical consumers. More broadly, the results highlight the importance of positive sensory experiences, and explicitly connecting these experiences to the concept of plant-based, for increasing uptake and repeated selection of plant-based foods.

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Pro-animal or pro-plant? A multi-country consumer segmentation and profiling on willingness to pay for animal- versus plant-based meat and dairy products

Rachelle de Vries*, Nicole Neufingerl, Elizabeth H. Zandstra

** Unilever Foods Innovation Centre Wageningen, Bronland 14, 6708 WH Wageningen, The Netherlands;* *rachelle.de-vries@unilever.com*

Keywords: Protein transition, Consumer segmentation, Willingness to pay, Behaviour change

A gradual shift from animal-based consumption toward more plant-based diets is crucial for public and planetary health. However, one practical barrier for this protein transition includes the (perceived) financial accessibility of plant-based alternatives. We further explore this tension by examining whether consumers in a large multi-country sample can be reliably distinguished based on their relative willingness to pay for animal- versus plant-based products (WTPΔ) across meat and dairy categories. We subsequently profiled emergent segments on psychographic characteristics, such as their readiness to reduce animal-based consumption (i.e., behavior change stage). Participants from the USA (N = 1614), the UK (N = 1664), and the Netherlands (N = 1967) completed an online survey that measured their WTP for animal- and plant-based variants of diverse frequently-consumed meat and dairy products. Segments were identified using a k-means algorithm on standardized WTPΔ scores across countries. Consistently among product categories, two clusters emerged: Pro animal-based consumers (25.2% for meat and 19.8% for dairy) exhibited a higher relative valuation of animal-based products (MWTPΔMeat = 1.35; MWTPΔDairy = 1.64), while pro plant-based consumers (74.8% for meat and 80.2% for dairy) reported a higher WTP for plant-based alternatives (MWTPΔMeat = -0.46; MWTPΔDairy = -0.41). For both meat and dairy, the pro animal-based cluster was characterized by a lower behavior change stage, lower intention to consume plant-based alternatives, greater perceived barriers for reducing animal-based intake, and a larger representation of older and rurally-situated consumers. Our findings allude to the potential utility of tailoring behavioral interventions to emergent cluster profiles.

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The TASTY Project: Taste Steering and taste and smell training in patients with cancer - two multicentre randomized intervention trials

Madieke Douma*, Sanne Boesveldt, Jacco de Haan, Fransien de Boer, Henk Brand

** University Medical Center Groningen (UMCG); m.d.douma@umcg.ac.uk*

Keywords: Cancer, Taste alterations, Clinical interventions

Anticancer treatments including chemotherapy and targeted therapy often cause taste and smell alterations, which significantly affect the quality of life for patients and their caregivers. These changes can lead to appetite loss, reduced food enjoyment, and poor dietary intake, resulting in nutritional deficiencies. For years, such side effects were seen as unavoidable and received little attention. Interventions Intervention 1 is taste steering, a coping strategy for patients and caregivers to adapt meals to changes in taste and smell for 6 weeks. An online tool provides personalized advice on food products and becomes more tailored over time through a self-learning algorithm using user feedback. A panel of gastronomic chefs and dietitians offers additional advice. Intervention 2 is taste and smell training for 12 weeks, aiming to restore taste and smell through daily exposure to standardized stimuli of four tastes (sweet, sour, salty, bitter) and four aromas (rose, cloves, eucalyptol, lime). Both interventions are studied in multicenter, non-blinded randomized trials with a parallel cluster design in 12 hospitals in the Netherlands. 201 patients with mamma carcinoma, testis carcinoma, or diffuse B-cell lymphoma will participate in the taste steering trial, and 90 patients receiving tyrosine kinase inhibitors will enter the taste and smell training trial. Assessments include smell and taste tests, saliva collection, and questionnaires. The TASTY project investigates the effectiveness of both interventions addressing taste and smell alterations. The project is unique because it is solution-oriented, fosters extensive collaboration across multiple disciplines, and is driven by a strong societal purpose.

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Parental perceptions about the effectiveness and ease of creating positive eating experiences to improve children's vegetable intake

Katie L. Edwards*, Ryan Durham, Qiao Zheng, Suzanne Higgs

** School of Psychology, University of Birmingham, Birmingham, B15 2TT, UK;*
k.l.edwards@bham.ac.uk

Keywords: Children's vegetable intake, Parent feeding, Socioeconomic status, Food security

Most UK children do not eat enough vegetables despite the associated health benefits. Research has demonstrated the effectiveness of positive eating experiences (e.g., using positive modelling) on increasing children's vegetable intake. However, this remains to be explored with parents in real-world feeding interactions. It is also unknown whether feeding experiences differ between families depending on socioeconomic status (SES) and food security. This study examined parental perceptions of creating positive eating experiences to improve children's vegetable consumption. Parents (N=247; 50% women) of 3-5-year-olds completed a baseline survey which assessed parent/child characteristics, including SES (score: 1=low, 4=high) and food security (secure=75.7%; insecure=24.3%) [predictors]. Parents then completed a one-week intervention where they created positive eating experiences when feeding their child vegetables. For example, using modelling, having shared mealtimes, and/or avoiding pressuring children to eat. Finally, a post-intervention survey assessed parent's perceived effectiveness and ease of creating positive eating experiences [outcomes]. Parent ratings were on a VAS from 0-100: effectiveness M=58.4, ease of use M=64.9. Findings showed that SES and food security did not significantly predict ratings of effectiveness or ease of use (p's>.05), suggesting that perceptions do not differ between families based on these characteristics. Importantly, most parents (91%) reported being likely to create positive eating experiences in the future. Overall, creating positive eating experiences in real-world feeding contexts appears suitable for parents, regardless of SES and food security. These findings have important implications for feeding guidance that promotes positive eating experiences, suggesting that guidance may not need to be tailored to specific household characteristics.

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A novel approach to shaping effective school food policies to improve children's healthy eating

Katie L. Edwards*, Sarah Newton, Jacqueline Blissett, Suzanne Higgs

** School of Psychology, University of Birmingham, Birmingham, B15 2TT, UK;*
k.l.edwards@bham.ac.uk

Keywords: Food policy, Primary schools, Children, Healthy eating

Most children do not meet nutrition recommendations. Schools offer a key setting for effective and scalable policies to improve healthy eating. Whilst several approaches show benefits to children's diets, adapting policies to meet individual school needs is challenging. Integration of evidence and expert perspectives is needed to quantify the effectiveness, feasibility, and opportunity for tailoring school food policies which can be implemented and sustained. A novel four-phase approach was used to integrate insights from academia, policy, and schools: (1) scoping policies aimed at improving healthy eating in primary schools; (2) consultation with food policy experts; (3) engagement sessions with primary school staff and children; and (4) triangulation of insights. Fourteen policy components were identified and evaluated to quantify indicators of effectiveness, feasibility, and opportunity for tailoring. Findings showed that components varied across indicators, such as some components lacking evidence (e.g., 'independent choices') or high costs (e.g., 'growing food'). Policy components which scored highest across indicators were 'learning about food', 'role modelling', and 'eating with others'. We explored how each component operates to change behaviour, identifying six potential mechanisms: exposure, food accessibility, motivation, social influences, and knowledge-based and skills-based food literacy. Findings showed that eight components operated through multiple mechanisms, and most mechanisms featured across multiple policy components. Overall, this novel approach which integrated insights from academia, policy, and schools demonstrated the effectiveness, feasibility, and opportunity for tailoring of key school food policy components. This provides a basis for developing a toolkit for schools to compare and combine components using key indicators (e.g., cost-effectiveness) and select suitable policies.

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Assessing healthy and sustainable dietary behaviour in Dutch practical education students

Madelief Engels*, Eline Baltussen, Sanne Raghoebar, Monica Mars, Ellen van Kleef

** Hollandseweg 1, 6706KN Wageningen;*
madelief.engels@wur.nl

Keywords: Dietary Behaviour, Adolescents, Mild intellectual disability, Participatory action research

Adolescents with mild intellectual disabilities (MID, IQ 50–85) are a vulnerable subgroup with unhealthy and unsustainable dietary behaviours. Existing interventions to improve diets are often inaccessible for this group. This study explored how capability, opportunity, and motivation (the COM-B model) shape healthy and sustainable dietary behaviour among adolescents with MID in Practical Education (PE). We used a qualitative participatory photovoice design focusing on current dietary behaviour and perceptions of healthy and sustainable eating. Students took photographs that were discussed in group interviews; photographs and interviews were analyzed using participatory inductive and deductive analysis guided by the COM-B model. In total, 96 students (F/M: 39/57; aged 14±1.3 years, classes 1–5) participated; 402 photographs and 127 interviews were analyzed. Our results show that capability reflected a basic understanding of healthy eating but limited understanding of sustainable eating. Executive functioning–related skills, such as cooking and planning, were challenging. Opportunity was strongly shaped by social influence and (mis)aligned support systems. Food environments had limited healthy and sustainable options. Motivation was predominantly automatic, with eating behaviour driven by palatability and immediate responses to environmental cues. Cultural diversity acted as a motivational facilitator. Our findings show that healthy and sustainable dietary behaviour among PE students is shaped by interacting capability, opportunity, and motivation factors. They highlight cultural inclusivity as a key motivator and underscore the need for palatable, easy-to-access food environments and experiential learning programs adapted to students' abilities, that involve both students and their support systems.

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Chronic non-nutritive sweetener and sugar consumption alter decision-making and risk-taking in young healthy adults

Camille Eustache*, Sylvie Granon, Sabrina Teyssier, Nicolas Darcel

** 22 place de l'Agronomie, 91123 - Palaiseau, France;*
camille.eustache@agroparistech.fr

Keywords: Non-nutritive sweeteners, Sugar intake, Decision-making, Risk-taking

Non-nutritive sweeteners (NNS)—such as aspartame, acesulfame-K, sucralose, and saccharin—are increasingly used as sugar substitutes to enhance food palatability without additional caloric intake. While the metabolic effects of NNS are well documented, their potential cognitive and socio-emotional consequences remain unclear. This study investigated the associations between chronic NNS consumption, cognitive performance, and socio-emotional behaviors in healthy young adults, while controlling for sugar intake to isolate substance-specific effects. A total of 291 French adults aged 18-30 years completed five computerized tasks assessing decision-making and emotion regulation: the Iowa Gambling Task (IGT), the Game of Dice Task (GDT), the binary dictator game, the Prisoner's Dilemma, and the Emotion Regulation Questionnaire (ERQ). Daily NNS and sugar intakes were estimated using quantitative food frequency questionnaires. Logistic mixed-effects regression models were used to examine the effects of NNS and sugar intake on choice probabilities. Higher NNS intake was associated with increased selection of the riskiest options under explicit risk in the GDT ($p = 0.04$) but did not affect decision-making in the IGT. Conversely, higher sugar intake was positively associated with selecting the advantageous yet risky option compared to both disadvantageous ($p = 0.04$) and advantageous non-risky ($p = 0.02$) options during the early ambiguity (learning) phase of the IGT. Sugar intake also tended to increase selection of the riskiest option (versus the safest option) under explicit risk. Neither NNS nor sugar intake significantly influenced altruism, cooperation, or emotion regulation. Chronic NNS and sugar consumption appear to differentially modulate decision-making processes under explicit and experiential risk, without significantly impacting social or emotional behaviors.

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Randomised controlled trials examining the impact of alcohol calorie labelling on alcohol and energy consumption in the out-of-home food sector

Thomas Gough, Rebecca Evans*, Jane Brealey, Amy Finlay, Andrew Jones, Rachel Pechey, Peter Scarborough, Eric Robinson

** Department of Psychology University of Liverpool Eleanor Rathbone Building UK L67 7ZA, UK*
r.k.evans@liverpool.ac.uk

Keywords: Randomised controlled trial, Calorie labelling, Alcohol intake, Energy intake

Alcohol is an energy dense macronutrient, and its consumption is associated with increased obesity risk. Alcohol calorie labelling has therefore been proposed as an effective intervention to reduce alcohol and overall energy intake and rates of obesity. Across two randomised controlled trials (RCTs),we investigated whether calorie labelling on alcohol products affects the number of alcohol units and calories selected in an online hypothetical task(study 1) and consumed in a real-world setting (study 2). Study 1 (N = 1984) was an online RCT which used a hypothetical food and drink selection task across two contexts (restaurant and pub). Study 2 (N = 311) was a real-world RCT in a pub whereby participants' eating and drinking behaviour was observed. For both RCTs, calorie labelling at point-of-choice was manipulated to be either present or absent. Calorie labelling led to a small but non-significant reduction in the selection/consumption of alcohol units (Study 1: -0.03, 95% CI [-0.24, 0.19]; Study 2: -0.08, 95% CI [-1.42 – 1.26] and calories(Study 1: -24.63, 95% CI [-63.78, 14.51]; Study 2: -69.54, 95% CI [-201.80 – 62.73]). Few participants reported that calorie labelling affected their drinking (Study 1 = 11.2%; Study 2 = 8.4%) or eating (Study 1 = 11.9%; Study 2 = 4.5%). Alcohol calorie labelling had minimal impact on alcohol and overall energy selection and consumption. It is unclear whether alcohol calorie labelling would meaningfully affect drinking and eating behaviour at a population level.

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Leveraging hedonic psychology, identity theory, and choice architecture to encourage sustainable food choices in mining camps

David Fechner*, Sara Dolnicar, Bettina Grün

** The University of Queensland, Business School, Faculty of Business, Economics and Law, Colin Clark, 39 Blair Dr, St Lucia QLD 4067, Australia;*
d.fechner@uq.edu.au

Keywords: Choice architecture, Hedonic psychology, Identity theory, Sustainable eating

Workers in remote Australian mining camps consume disproportionately high amounts of meat, driven by hedonic preferences and beliefs that meat better supports their health goals. Reducing meat intake in this population represents a meaningful opportunity to lower food-related greenhouse gas emissions. Guided by hedonic psychology, identity theory, and choice architecture, we designed two field experiments to test low-cost interventions that enhance the appeal and visibility of plant-based dishes. In Study 1, kitchen staff offered diners a sample of the plant-based dish available that evening, increasing its hedonic salience. Across days, the proportion of diners selecting the target dish shifted by −2 to +8 percentage points. Qualitative feedback reflected mixed taste experiences, with some describing the dishes as “very tasty” while others found them “gluggy and flavourless.” In Study 2, we introduced a dedicated buffet section featuring a labelled Wellness Wednesday plant-based dish, aligning it with health-oriented goals. Preliminary findings suggest that, on average, workers consumed 80% of the available portions and reported high satisfaction, including comments such as “Looking forward to next Wednesday” and “I’m a carnivore but this is not bad,” indicating openness even among heavy meat eaters. These findings demonstrate that subtle, theory-informed changes to buffet design can influence food choices and provide a practical pathway for reducing the environmental footprint of foodservice providers.

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Nutri-score labelling as an obesity policy in the out-of-home food sector: a randomised control trial in a UK restaurant setting

Amy Finlay*, Andrew Jones, Rebecca Evans, Zoé Colombet, James Garbutt, Martin O'Flaherty, Zoi Toumpakari, Nick Townsend, Eric Robinson

** 2.80 Eleanor Rathbone Building, Bedford Street South, Liverpool, England, L697ZA;UK*
amy.finlay@liverpool.ac.uk

Keywords: Out-of-home, Food-choice, Menu-labelling, Obesity

Over half of adults eat food prepared out-of-home (OOH) weekly, and consumption of OOH food is associated with increased obesity risk. Nutri-score labelling assigns food products a value of A (healthiest) to E (least healthy) based on overall nutritional quality and its adoption in the OOH sector could be an effective obesity policy. This between-subjects study was conducted across two cafés in Liverpool city centre, UK. Participants (N=672) visited one of the cafés for lunch and were asked to order, eat and pay for meal from the menu. Data collection days were randomised to be kcal labelling only(control) or kcal labelling + Nutri-score. Linear mixed models assessed the impact of labelling condition on Perceived Message Effectiveness (PME) and meal healthiness (mean UK Nutrient Profiling Model (NPM) scores, weighted according to kcal content of individual menu items). Multi-level logistic regressions explored the likelihood of healthier (labelled A or B) and less healthy (labelled D or E) menu item selections across the two study conditions. PME was greater in the Nutri-score + kcal labelling condition compared to kcal labelling alone (0.21, p=0.010; 95% CI 0.05 – 0.37) and food orders were healthier in Nutri-score + kcal labelling condition (-0.82, p=.007; 95% CI -1.41 – -0.23). There were no differences between conditions in the likelihood of selecting healthier (labelled A or B) or less healthy (labelled D or E) menu items. Compared to kcal labelling alone, Nutri-score labelling was associated with greater PME and greater overall healthiness of meals selected.

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The emergence of an obesogenic diet: Mapping changes in the macronutrient composition of the UK diet from 1943 to 2019

Alexandra E. Finnan*, Jeffrey M. Brunstrom, Annika N. Flynn

** Nutrition and Behaviour Unit, School of Psychological Science, University of Bristol, 12a Priory Road, Bristol, BS8 1TU, UK*
xu25730@bristol.ac.uk

Keywords: Macronutrient composition, Obesogenic environment, Dietary intake

In 1995, Prentice and Jebb published a landmark study tracking changes in macronutrient intake and BMI in the UK population from 1943 through 1991. This is of interest because obesity rates increased substantially during this period. Over this period, there was also an 8% reduction in dietary calories derived from carbohydrate alongside a corresponding 7.3% increase in energy from fat. Here, we used historic population-level records to meet two objectives; 1) we sought to extend this analysis from 1943 to 2019, 2) we went back to original post-war records and included an assessment of energy from protein. Our analysis replicates findings from Prentice and Jebb, who argued that obesity was caused by an increase in fat intake. Another interpretation is that obesity rates increased in the 1990's because our diet was characterised by a more equal blend in energy derived from fat and carbohydrate. This is relevant because meals with this composition profile are consumed in larger portions (kcals). However, from 2000 onwards, whole diets became relatively less blended, with a modest increase of 1.7% in the fraction of energy from carbohydrate over fat, which in turn decreased 3.3%. In future, we aim to explore how changes in fat and carbohydrate might impact energy balance after accounting for changes in diet-level energy density. Lastly, the fraction of energy from protein remained stable across the entire period, thus changes in diet composition can be attributed largely to changes in fat and carbohydrate.

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I See What You Taste: The Influence of Social Learning on Food Acceptance in Children

Britt Fleischeuer*, Rosalie Mourmans, Pauline Dibbets, Katrijn Houben, Anouk E.M. Hendriks-Hartensveld, Anouk J.P. van den Brand, Ilse van Lier, Chantal Nederkoorn

** Maastricht University, P.O. Box 42, 6200 MD, Maastricht, The Netherlands*
britt.fleischeuer@maastrichtuniversity.nl

Keywords: Picky eating, Fruit and vegetable intake, Social learning, Parents

Picky eating is common in childhood and is characterized by the rejection of both familiar and unfamiliar foods, including fruits and vegetables, which can limit diet quality. Because children acquire food preferences partly through social learning, this study examined whether children's ability to process facial, social, and taste-related cues is associated with picky eating and fruit and vegetable intake. A total of 273 child–parent pairs participated. Picky eating and fruit and vegetable intake of the parents and child were measured. Children completed tasks assessing facial emotion recognition, taste identification, recognition of tastes in others, and social modeling of food choice. Poorer identification of tastes was associated with higher levels of child picky eating, even after controlling for parental picky eating and parental fruit and vegetable intake. Facial emotion recognition and recognition of tastes in others were not associated with picky eating or fruit and vegetable intake. In the social modeling task, most children selected food paired with a positive facial expression; however, this choice was unrelated to picky eating or fruit and vegetable intake. These findings suggest that picky eating in children is related to individual differences in taste processing rather than to difficulties in recognizing facial expressions. Children who are less able to identify basic tastes may benefit less from social eating cues, which could contribute to picky eating. Interventions aimed at improving children's taste-related processing or reducing taste-related uncertainty may therefore help support healthier eating patterns in picky children.

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The Role of Social Needs in Dynamic Norm Messages for Reduced Meat Consumption

Theresa Fox*, Sandra Klaperski-van der Wal, Tina A. G. Venema, Esther K. Papies

** Social and Cultural Psychology, Radboud Universiteit Nijmegen, Thomas Van Aquinostraat 4, 6525GD Nijmegen, Netherlands*
theresa.fox@ru.nl

Keywords: Dynamic norms, Social self, Social needs, Meat consumption

Dynamic norms have previously been shown to influence pro-environmental behaviour, but results are mixed. Detecting moderators and mediators might help to explain these mixed findings and help to better shape dynamic norm messages. Based on Optimal Distinctiveness Theory and Uniqueness Theory in Social Psychology, we suggest that dynamic norms might serve to fulfill both the need to be similar to others and the need to be distinct from others. To test this, we report a pre-registered experiment (n = 480) examining whether perceiving the potential to satisfy the need for uniqueness and the need for similarity mediates the effect of a dynamic norm message on reduced meat consumption. While the dynamic norm message did not affect the perceived potential for uniqueness and the perceived potential for similarity, the perceived potentials did predict reduced meat consumption. Future research might use more significant message reference groups or other types of messages to reveal message effects on the perceived potentials. Additionally, depending on the context, reduced meat consumption might not represent a suitable behaviour for norm messages anymore because it is already perceived as being followed by a significant numerical minority. Consequently, norm messages would not have informational value anymore and hence, not influence the perceived potentials. In addition, meat reduction has become highly politicized, so that norms interventions are no longer effective.

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Body shape concern is partially explaining the relationship between autistic traits and disordered eating

Jennifer Gatzemeier*, Keira Smith, Anthony Haffey

** School of Psychology, Swansea University, SA2 8PP Swansea, UK*
jennifer.gatzemeier@swansea.ac.uk

Keywords: Autistic traits, Eating disorder, Body image

Autistic traits have been linked to elevated risk for disordered eating and body image dissatisfaction, yet the mechanisms underlying these associations are less researched. Therefore, this study examined whether body shape concerns mediate the relationship between autistic traits and key dimensions of disordered eating in adults. A total of 127 female participants (Mage = 22.8 ± 9.4 years) completed an online survey including the Comprehensive Autistic Trait Inventory (CATI), the Body Shape Questionnaire (BSQ), and the Eating Disorder Examination Questionnaire–13 (EDE-Q-13), which assesses global disordered eating and subscales of eating restraint, body dissatisfaction, binging, and purging. Multiple regression and mediation analyses were conducted while controlling for age and BMI. Higher autistic traits were significantly associated with greater body shape concerns, as well as with higher global disordered eating and most sub-scales, with the exception of purging. Body shape concerns were also associated with disordered eating. Mediation analyses indicated that body shape concerns partially explained the link between autistic traits and disordered eating: individuals with higher autistic traits reported greater concern about their body shape, which in turn predicted more severe disordered eating attitudes and behaviours. These findings suggest that body image-related distress may be one important pathway through which autistic traits contribute to disordered eating. Identifying and targeting body shape concerns may therefore offer a clinically relevant avenue for early intervention and tailored support for individuals with elevated autistic traits who are at heightened risk for disordered eating.

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Parental decision making and acceptance of emerging foods for self and child

Ai Ting Goh*, Joanne Hort, Mei Peng

** Department of Psychology, University of Otago, Dunedin 9016, New Zealand*
aiting.goh@postgrad.otago.ac.nz

Keywords: Food provision, Eating behaviour, Novel food adoption, Meal planning

Over the past decade, significant efforts have been made to introduce emerging foods into the marketplace to address global food insecurity, sustainability, and environmental challenges. Parents' attitudes toward food risks, prior food experiences and meal-planning can impact children's openness to trying emerging foods. This study examined parental decision-making for themselves and their children, and the factors shaping acceptance of emerging foods. An online survey was conducted with parents of children aged 3 to 12 years across New Zealand (N=412). The survey included a food acceptance task across four food categories (novel technologies, futuristic concepts, ethnic foods and common foods), familiarity ratings, the Food Choice Questionnaire (FCQ), Food Neophobia Scale (FNS), Food Technology Neophobia Scale (FTNS), and the Cooking and Food Provision Action Scale (CAFPAS). Parents prioritised weight control, mood regulation, and convenience ($p<.05$) when choosing food for themselves. In contrast, familiarity, healthiness, and naturalness were prioritised for their children ($p<.05$). Parents reported higher self-efficacy in preparing food for themselves ($p<.05$), but lower ability to navigate non-food-related barriers in food provision for themselves. Across food categories, parents were significantly more likely to choose unfamiliar foods for themselves than to offer them to their children ($p<.05$). FNS and FTNS predicted differences between parental ratings for themselves versus child ($p<0.05$). These findings highlight distinct parental food decision-making process for themselves compared with their children.

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Exploring associations between diet and personality using domain- and nuance-level analyses

Darina E. Grjaznov*, Uku Vainik, René Mõttus

** Institute of Psychology, University of Tartu, Näituse 2, 50409 Tartu, Estonia*
darina-eisal.grjaznov@ut.ee

Keywords: Diet, Personality, Personality nuances, Eating behavior

Dietary patterns differ across individuals, and personality may help explain these differences. Using a large Estonian Biobank sample (N self-report = 56,791; N self- and informant-report = 16,726), we examined links between diet and personality at both Big Five domains and nuances, measured with 100 Nuances of Personality (100NP) instrument. Fifteen dietary items were reduced via PCA to two components: Health aware and Traditional. Dietary component scores and personality items were residualized for sex, age, and education. Self- and informant personality ratings were combined for error-free estimates of personality. Associations with diet were examined using correlations for personality domains and ElasticNet approach for nuances. Domains showed small or negligible associations with diet; the strongest were for the Health aware component with Extraversion (r = .12) and Openness (r = .10). Nuance-based ElasticNet models had a stronger association with diet. Namely, the total association between Health aware component and personality was r = .36, with top predictors: Like to read (β = 0.08), Worry about my health (β = 0.08), Work on improving myself (β = 0.08). For the traditional component, the total association across personality nuances was r = .30, with top predictors: Yell at people (β = 0.10), Worry a lot about my looks (β = -0.06), Believe in the importance of tradition (β = -0.05). The results indicate that personality is intertwined with diet preferences, with nuances providing greater predictive value than domains.

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“Food is not rubbish!” - Tackling food waste in UK primary schools via collaboration and codesign

Charlotte A. Hardman*, Lisa Didier, Natasha Bayes

** Department of Psychology, University of Liverpool, L69 7ZA, UK*
charlotte.hardman@liverpool.ac.uk

Keywords: Food waste, School meals, Children, Codesign

Food waste in schools is a significant environmental, health, social, and economic challenge which occurs, at scale, predominantly in kitchens and dining halls. In the UK, there is a dearth of evidence-based interventions or policies for reducing school food waste and this creates a critical knowledge gap. In this impact-focused mixed-methods project, we aimed to synthesise evidence and generate insights that can begin to support schools and stakeholders with implementing evidence-based strategies and interventions to reduce food waste. Semi-structured interviews were conducted with stakeholders (N=19), comprising staff from schools, local authorities, caterers and third-sector organisations, to understand a range of perspectives and experiences of reducing school food waste. We also partnered with two primary schools to conduct codesign work with pupils (N=32, aged 6-11 years) which enabled brainstorming of waste-reduction ideas via “dotmocracy” (an age-appropriate visual voting method where participants place dot stickers next to preferred ideas). Common themes from the interviews included the need for repeated multi-lever interventions, embedding food waste education into the school curriculum, and taking a broader food-system approach. Resource constraints (e.g. time, staffing) around school lunchtimes were a key barrier. Children were keen for greater choice at lunchtime, for example with choosing side portions, serving sizes, and for more taster opportunities. These findings highlight logistic challenges experienced by schools but also opportunities for action. Schools may benefit from a suite of interventions that can be customised to suit individual needs. Actively engaging pupils in menu planning, food-related decision-making, and food-waste strategies could also foster ownership and potentially promote long-term behaviour change.

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Children's acceptance and liking of novel UK-grown beans in primary schools

Charlotte A. Hardman*, Natasha Bayes, John Ingram

** Department of Psychology, University of Liverpool, L69 7ZA, UK*
charlotte.hardman@liverpool.ac.uk

Keywords: Children, School meals, Food intake, Liking

Schools are an important setting for enabling access to nutritious, environmentally sustainable foods, but we lack evidence on optimal strategies to encourage uptake. This study examined children's acceptance and liking of lunchtime meals comprising novel UK-grown beans. Over 5 months, cooks in six primary schools were provided with UK-grown beans and trained to prepare and offer them in meals. Children in Year 5 (9-10-year-olds) also participated in bean-based educational activities. Meal selection and consumption (pre- and post-meal photographs) and liking (5-point rating scale) were measured for 91 children in Year 5 and Year 4 (the latter who did not receive the educational activities) at the start, midpoint, and end of the project. Cooks provided a range of bean-meals. Average bean-meal consumption was not significantly different from standard non-bean-meals at timepoint 1 (respective mean % consumption (standard deviation) = 71 (26) vs. 68 (22), 95% confidence interval [-6.2, 13.7]) or timepoint 3 (75 (24) vs. 69 (26), 95% CI [-4.5, 16.3]). Liking of bean-meals did not differ significantly from non-bean-meals at timepoint 1, but at timepoint 3 was significantly lower for the bean-meals than non-bean-meals (respective mean liking (SD) = 3.49 (1.38) vs. 4.17 (1.02), 95% CI [-1.2, -.13], though importantly average bean-meal liking remained above the scale mid-point (3="okay"). There were no significant differences on any outcome between children in Year 5 and children in Year 4. While there were no discernible additive impacts of bean-based educational activities, the results indicate that UK-grown beans can be added to a range of school meals, with consumption and liking generally comparable to standard meal offerings.

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True overlap between personality, BMI, and eating behaviours

Melian Heinsaar*, Uku Vainik, René Mõttus

** Näituse tn 2, 50409 Tartu, Estonia*
melian.heinsaar@gmail.com

Keywords: Big Five, eating behavior, BMI, multi-method design

Empirical evidence consistently demonstrates that the Big Five personality domains are significantly correlated with various eating behaviors and body mass index (BMI). However, the accuracy of linking personality traits to eating behaviors and BMI is limited because all of them are often measured through self-reports that contain systematic biases and substantial random error. To reduce measurement noise and map BMI and eating behaviours to personality, we combined self- and other-reports across 198 personality items. Namely, we used data from the Estonian Biobank, where participants had both self- (N = 73,983) and other (N = 21,986) ratings on the 100NP questionnaire and five items to assess common eating behaviors. To estimate the true correlation between personality and eating behaviors, a cross-informant approach was used. All five personality domains were correlated to BMI with effect sizes (r~0.01-0.12). Furthermore, investigating the overlap between narrower personality nuances and specific eating items revealed substantial effect sizes, with correlations reaching up to r = −0.54. In conclusion, multi-rater data is essential to reveal clearer connections between personality and eating behavior.

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Predictors of food craving strength in individuals with overweight, obesity and healthy BMI: findings of a three-week EMA study

Jikke Hesen*, Eva Vanbrabant, Codrin Mironiuc, Suzan Jordan, Lotte Lemmens, Yuliya Shapovalova, Gijs Goossens, Anne Roefs

** Universiteitssingel 40, 6229 ER Maastricht, The Netherlands*
jikke.hesen@maastrichtuniversity.nl

Keywords: Food craving, Ecological momentary assessment, Obesity, Overweight

Food cravings are important predictors of food consumption, but it is not always clear what precedes food cravings in daily life. In the current study, 191 individuals with overweight (BMI 25.0-29.9 kg/m2), 204 individuals with obesity (BMI > 30.0 kg/m2), and 201 individuals with a healthy bodyweight (BMI 18.5-24.9 kg/m2) completed three weeks of smartphone-based Ecological Momentary Assessment (EMA). Participants received 8 surveys per day asking about current food craving strength, mood states, stress, social context, physical activity and social media use. Analyses are ongoing, and we will use multilevel VAR (mlVAR) models to estimate temporal relations (temporal network) and concurrent relations (contemporaneous network), between food craving strength, lifestyle behaviors and mood states per BMI group (i.e., healthy BMI, overweight, obesity). Between-group differences for the temporal and contemporaneous networks will be tested. Finally, we investigate network heterogeneity within BMI-groups. We hypothesize that individuals with overweight or obesity experience more and stronger food cravings than individuals with a healthy BMI, and that we will find stronger predictors for food cravings in individuals with overweight and obesity. Additionally, we expect large differences in network parameters across BMI groups. Identifying relevant predictors of food cravings contributes to optimalization of lifestyle interventions for the treatment of overweight and obesity. Moreover, these findings may contribute to the development of personalized ecological momentary interventions for problematic eating behaviors and overconsumption of food.

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Evaluation of a healthy lunch pilot in a Dutch elementary school

Janneke in het Veld*, Victoire de Wild

** Stippeneng 4, 6703HD, Wageningen, the Netherlands*
jannekeinhetveld@hotmail.com

Keywords: Child-eating-behaviour, School lunches, Vegetables/Fruit, Plant-based proteins

As part of Wageningen municipality's food policy, a pilot project providing healthy school lunches was implemented at a Dutch elementary school in a somewhat deprived area to expose children to sustainable food choices—such as plant-based proteins—and to increase intake of vegetables, fruit, and dietary fiber, now insufficient in parent-provided lunches. The pilot involved 24–30 pupils grades 5–8, with lunches served weekly from September to December 2025. Baseline observations showed home-packed lunches often consisted of white bread with meat, high-fat or sugary snacks, and few whole grains, vegetables, or fruit. During the pilot, children received whole-grain sandwiches or wraps with vegetarian toppings consistent with national dietary guidelines, supplemented with shared vegetable and fruit platters. After autumn break, a self-serve "buffet" format was introduced to enhance autonomy and acceptance. Food intake was measured five times by counting sandwiches/wraps and weighing raw vegetables/fruits before and after meals; children also completed brief evaluations. On average, lunches provided 28 g of vegetables (16% of recommended daily intake), 50 g of fruit (25% RDI), and 5.5 g of fiber (19% RDI). Children preferred assembling their own lunches over pre-made ones, and satisfaction was high (mean score 4.1/5), with 61% wishing the program to continue. The pilot demonstrated that school lunches can meaningfully improve children's consumption of fiber, vegetables, and fruit while reducing intake of sugary and fatty foods. However, continuation in its current form was not feasible due to staffing, budget constraints, and lack of kitchen facilities. An alternative—offering vegetable, fruit, and unsalted nut supplements alongside home-packed lunches—was recommended.

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Role of texture in eating behaviour in Dutch primary schoolchildren: a naturalistic classroom study

Gerry Jager*, Victoire W.T. de Wild, Guido Camps, Ciarán G. Forde

** Division of Human Nutrition and Health, Wageningen University and Research, Stippeneng 4, 6703 HD, Wageningen, the Netherlands*
gerry.jager@wur.nl

Keywords: Child eating behaviour, Food texture, Energy intake, Eating rate

Eating rate (ER), defined as the amount of food consumed per unit of time, is a key determinant of food and energy intake and a higher ER has been linked to overeating. Both food-related factors, such as texture, and individual eating behaviors can influence meal ER and energy intake, as shown in adults, yet their combined effects in children remains poorly understood. We compared the independent and combined effect of meal texture and 'slower-eating' instructions on ER, food and energy intake among primary school-age children. Seventy-three children (38 boys) aged 4–12 years completed a 4-week cluster-randomized incomplete cross-over study during school lunches. The study employed a 2×3 factorial design with food texture (commercially available softer vs. harder whole-grain buns) and eating instruction (none, control, mindful). All meals were consumed in their normal class-room lunch setting. Linear mixed models with repeated measures were used to analyze outcomes, adjusting for sex and group. The interaction between bun type and instruction was non-significant, and removed from the final model. Results showed a significant main effect of bun type on intake, energy intake, and eating rate (all $p < 0.001$), with harder buns leading to slower eating rates (−6.67 g/min) and lower meal (−70 g) and energy intakes (−178 kcal). No significant effects were seen for 'slower eating' instruction. These findings indicate that food texture plays a dominant role in shaping eating behaviour in children and represents a potential leverage point for influencing energy intake.

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Experiences impacting uptake and use of the healthy start scheme: a systematic scoping review and systems mapping approach

Jessica Mingins, Paulette Myers, Gabriella Morley, Megan Jarman*

** Institute of Health and Neurodevelopment, Aston University, Birmingham UK. B4 7ET; UK*
m.jarman@aston.ac.uk

Keywords: Healthy start, Systems mapping, Food insecurity

Food insecurity remains a significant issue in the UK, with an estimated 14.1 million people experiencing some level of food insecurity in 2024. The Healthy Start scheme, introduced in 2006, was designed to address nutritional inequalities by providing eligible pregnant people and families with young children financial support for healthier foods, alongside free vitamins. Despite this aim, national uptake is suboptimal: around 40% of eligible families do not receive financial support, and approximately 90% do not access the free vitamins. Yet there is a notable absence of evidence synthesising experiences of engaging with the scheme or examining the processes involved in uptake as a complex system. This project aimed to: (1) conduct a systematic scoping review to identify experiences influencing Healthy Start uptake and use, and (2) co develop a systems map with stakeholders and families to understand the factors shaping engagement with the scheme as a complex system. Following Johanna Briggs Institute guidelines, five academic databases and grey literature sources were searched for UK based studies published from 2006 onward that reported experiences of Healthy Start from any perspective. Thirty five records met the inclusion criteria: 22 academic and 13 grey literature sources. Extracted data capturing experiences related to scheme uptake and use were consolidated, then refined with stakeholders to ensure temporal relevance. The resulting systems map highlighted key factors affecting uptake, including misinformation about eligibility, low awareness among potential beneficiaries, and the need for support when completing applications. For vitamin access, systemic issues included misconceptions about supplementation and challenges related to distribution and storage. The mapping demonstrates that interventions focusing on single issues are unlikely to succeed due to the interconnected nature of influencing factors. Local authorities may use and adapt the systems map to guide targeted, evidence informed strategies for improving Healthy Start uptake.

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Mapping methods to assess taste and smell alterations in children with cancer: a scoping review

Samia Saraya-Jean*, Mirjam Van den Brink, Séverine Bouttefroy, Florence Carrouel, Anestis Dougkas

** Université Claude Bernard Lyon 1, 43 Bd du 11 Novembre 1918, 69100 Villeurbanne, France*
ssaraya-jean@institutlyfe.com

Keywords: Assessment methods, Taste, Smell, Pediatric oncology

Sensory alterations are increasingly reported among children undergoing cancer treatment, yet the methods used to assess taste and smell alterations remain highly inconsistent across studies. This scoping review aimed to map and critically examine the methodologies used to assess taste and smell alterations in children with cancer, identifying assessment approaches, their strengths and limitations, and gaps for future methodological development. A scoping review was conducted following the Joanna Briggs Institute (JBI) framework, with searches performed in PubMed, Embase and Web of Science. Eligible studies included children with cancer aged 0–18 years at diagnosis, across all treatment stages, from diagnosis through post-treatment and survivorship. Thirty-two studies were included. Literature primarily focuses on chemosensory alterations, particularly taste and smell, using psychophysical, self-reported and qualitative methods, while other sensory modalities are rarely considered. Reported prevalence varied according to the assessment method used, highlighting important differences between psychophysical and self-reported approaches. Psychophysical measures identified taste dysfunction in approximately 20–33% of children during treatment, whereas self-reported tools indicated higher prevalence, ranging from 45–95%. For smell, psychophysical testing suggested low rates of reduced sensitivity (4–7%) but more frequent difficulties with odor identification (10–21%), while self-reported measures captured qualitative changes such as increased sensitivity in 26–53% of children. Overall, these findings emphasize the need for standardized, child-appropriate, and multimodal assessment methods that minimize burden while improving study comparability and helping clinicians understand and support the sensory experiences that shape eating behavior and quality of life in children with cancer.

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Influence of Sushi Meal Configuration and Nutrient Profile on Postprandial Glycemia

Ena Kawamoto*, Takanori Haneda, Kohei Suruga, Miho Arakawa, Nirin Udomsom, Hajime Nagai, Yukako Hayashi

** Zensho Central Institute for Science and Technology, Zensho Holdings CO., LTD., 2-18-1 Konan, Minato-ku, Tokyo, Japan*
ena.kawamoto@zensho.com

Keywords: Sushi, Postprandial blood glucose, Incretin

Sushi is a traditional Japanese dish consisting of vinegared rice combined with various toppings such as seafood, and it has become increasingly popular worldwide. Despite its global recognition, scientific evidence evaluating the health benefits of sushi remains relatively limited. Postprandial blood glucose spikes, characterized by rapid elevation followed by a sharp decline due to excessive insulin secretion, are linked to vascular damage and increased metabolic risk. This study examined whether sushi meal configuration and nutrient profile could attenuate these spikes. Healthy subjects (n=30, age 18-25 years old) participated in two single-meal intervention experiments. In the first experiment, participants consumed sushi in four patterns: whole sushi (S), topping followed by rice (TR), rice followed by topping (RT), and rice alone (R). Blood glucose was self-monitored at fasting and every 5 minutes from 15 minutes after meal initiation, alongside satiety and drowsiness ratings on a 9-point scale. After administration of S, TR, RT and R, Blood glucose levels of S and TR were lower than those of RT and R. The second experiment assessed the effect of sushi toppings using lean tuna (LT), medium-fatty tuna (FT), and rice alone (R). Results indicated that FT produced the lowest peak glucose level compared to LT and R in these among toppings, suggesting that differences in the nutritional components contained in the toppings influence postprandial glucose elevation. Future research will investigate hormonal including insulin and glucagon-like peptide-1 responses to clarify underlying mechanisms.

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Food insecurity predicts addiction like eating—but this relationship does not appear to be mediated by diet quality

Gregory S Keenan*, Tudor Seleusan

** TRB 3.28, Liverpool John Moores University, Liverpool, UK, L3 3AF; UK*
g.s.keenan@ljmu.ac.uk

Keywords: Food insecurity, Food Intake, Food Addiction, Addiction Like Eating Behaviour

Food insecurity (defined as unreliable access to sufficient and nutritious food) is frequently associated with dietary patterns marked by lower consumption of fresh produce and higher intake of processed foods. Such dietary profiles have been linked to an elevated risk of addiction like eating behaviours. The present study examined whether individuals experiencing food insecurity exhibit greater risk of addiction like eating behaviours, and whether this association is mediated by diet quality. A total of 285 adults completed the Food Insecurity Experience Survey (FAO, 2018), the Rapid Prime Diet Quality Score Questionnaire (Kronsteiner Gicevic et al., 2023), and the Addiction Like Eating Behaviour Scale (Ruddock et al., 2016). Consistent with predictions, food insecurity was positively associated with higher levels of addiction like eating behaviours. However, food insecurity did not significantly predict diet quality (b = −0.054, p = .712), nor was there evidence of an indirect pathway between food insecurity and addiction like eating via diet quality (ab = 0.037, BootSE = 0.095, 95% CI [−0.16, 0.22]). These findings suggest that although food insecurity is linked to heightened addiction like eating behaviours, this relationship does not appear to be explained by the nutritional quality of the diet consumed. Other psychological, environmental, or socioeconomic mechanisms may therefore play a more central role in driving associations between food insecurity and maladaptive eating patterns.

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Innovating dietary intake assessment with hyperspectral imaging; the role of neural networks and spectral unmixing

Esther Kok*, Guido Camps

** Department of Human Nutrition and Health, Wageningen University & Research, Stippeneng 4, 6708 WE Wageningen; the Netherlands*
esther1.kok@wur.nl

Keywords: Hyperspectral imaging, Neural network, Machine learning, Dietary assessment

Self-report methods continue to suffer from biases related to human memory, which leads to over- or under estimation of the power by which diet-disease associations can be detected. We see hyperspectral imaging (HSI) as an imaging technology that can supplement dietary assessment in specific contexts, since it allows for quantification of composition of food items, such as macronutrients. This study proposes a HSI-based solution which uses neural networks to automatically analyse mixed foods. Mixed foods in HSI have overlapping spectral footprints, making macronutrient prediction difficult. Using cheese as a use case, because of its straightforward macronutrient composition, we simulate mixed meals by adding toppings. Toppings were selected based on their macronutrient profiles, either distinct from or similar to other toppings (salad dressing, honey, olive oil, linseed oil). Our pipeline automatically extracts relevant pixels from the images. These pixels are used to spectrally separate different foods using gaussian unmixing. After unmixing, a neural network was used to predict macronutrient content. The pipeline is able to extract pixels with accuracy 0.88, F1-score 0.87, and jaccard index 0.41. After spectral unmixing it predicts total fat with R2 0.97, and Root Mean Squared Error of Prediction (RMSEP) 1.68. Protein content was predicted with R2 0.94, and RMSEP 2.10. This pipeline shows that cheese and toppings can be analysed automatically to accurately extract macronutrient content from a meal consisting of multiple food items, in such a way that we can use it as an alternative for self-report methods. Furthermore, we demonstrate that mixed foods can be spectrally separated for accurate prediction of nutritional content.

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Identifying eating behaviour phenotype cut-off scores for childhood obesity: An individual participant data meta-analysis using the Child Eating Behaviour Questionnaire (CEBQ)

Laura Kudlek,* Andrea D. Smith, Cara F Ruggiero, Lisa Pennells, Alice R. Kininmonth, Silje Steinsbekk, Pauline W Jansen, Amy L. Ahern, Elaine K. McCarthy, Amy Gross, Victor Viana, Arend W. van Deutekom, MD John C. Spence, Jennifer Orlet Fisher, Jacqueline Hayes, Emma Haycraft, Charlotte A. Hardman, Patricia P Silveira, Jennifer A Emond, Aino-Maija Eloranta, Darlise dos Passos Gomes, Julie C Lumeng, Matthew B Cross, Susan Carnell, Alison Fildes, Clare Llewellyn

** Alte Brauerei, Röntgenstraße 7, 68167 Mannheim, Deutschland*
laura.kudlek@medma.uni-heidelberg.de

Keywords: Child Eating Behaviour Questionnaire, Cut-off scores, Behavioural Phenotypes

Weight management interventions targeting appetitive traits show promise in treating childhood obesity, yet a tool to identify appetitive phenotypes for personalised treatment is missing. The Child Eating Behaviour Questionnaire (CEBQ) is a widely used measure of eight parent-reported appetitive traits associated with childhood obesity. We aimed to explore the utility of the CEBQ for phenotyping childhood obesity and derive cut-off scores to support clinical decision-making. This individual participant data meta-analysis combined cross-sectional data from 17 international studies (N = 15,273) on CEBQ scores and Body Mass Index Standard Deviation Scores from children (2–18 years). The potential of CEBQ subscales (Food Responsiveness, Enjoyment of Food, Emotional Over-eating, Desire to Drink, Satiety Responsiveness, Slowness in Eating, Emotional Under-eating, Food Fussiness) to discriminate weight status was explored in random-effect meta-analyses of Area Under the Curve (AUC) metrics. We explored heterogeneity across studies and age- and sex- specific subgroups. Cut-off scores were derived within subgroups using (a) the Youden's Index and (b) the point maximising specificity after a minimum sensitivity of 60%. We meta-analysed study-specific performance with the selected cut-offs to describe heterogeneity across studies. AUCs for CEBQ subscales ranged from 0.60 to 0.71. The magnitude and shape of associations between CEBQ scores and obesity varied by age and sex. Cut-off performance was generally better in middle- than early childhood. The best performing cut-off score of 2.6 was observed for females aged 7-12 years for Food Responsiveness (Sensitivity: 0.81 [95%CI 0.77, 0.85]; Specificity: 0.85 [95%CI 0.82, 0.88]). High heterogeneity in cut-off performance across studies and wide prediction intervals suggest the need to further investigate external validity. We provide the first empirically derived CEBQ subscale cut-offs to phenotype children with obesity based on weight-related eating behaviours. Cut-offs could support personalised treatment in clinical and research contexts.

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Factors associated with weight loss success: An umbrella review and the DELTA Grid taxonomy

Kari Kuulman*, Kadri Arumäe, Senta Pikksaar, Uku Vainik

** Näituse 2, 50409 Tartu, Estonia*
kari.kuulman@ut.ee

Keywords: Weight loss success, Umbrella review, Taxonomy, DELTA Grid

Research on weight management has identified numerous factors associated with weight-loss success, yet existing taxonomies organise these factors along single dimensions, providing incomplete guidance for intervention. This umbrella review aimed to identify factors associated with weight-loss success systematically and to propose a two-dimensional classification framework, the DELTA Grid taxonomy, to enable the practical application of these factors. Following Joanna Briggs Institute methodology and PRISMA guidelines, five databases were searched for systematic reviews (2014–2024) examining factors associated with weight loss or maintenance in adults. Forty-eight systematic reviews encompassing 1,150 primary studies and 146,147 participants yielded 253 factor mentions, consolidated into 98 unique evidence-based factors using validated taxonomies. The DELTA Grid (Domain-Ecology × Lever-Type Array) classifies factors by where they reside (five ecological levels: Core-Self Biological, Core-Self Psychological, Daily-Habits, Relational-Network, Built-Setting) and how they operate (four lever types: Affective, Behavioural, Cognitive, Desire/Motivational). The analysis revealed critical imbalances: behavioural levers dominated the literature (49.0%), while affective levers were substantially underrepresented (7.1%). Most strikingly, relational-network factors accounted for only 1.0% of the identified factors, and 6 of 20 grid cells (30%) remained empty, indicating systematic blind spots in the research. The DELTA Grid addresses limitations of unidimensional taxonomies by simultaneously specifying where factors reside and through which mechanism they operate, enabling precise intervention matching. The 98-factor inventory provides a comprehensive content domain for diagnostic instrument development, while the two-dimensional structure ensures coverage of the whole ecological-mechanistic space. This framework structures weight-loss assessment across ecological domains and mechanistic levers.

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The impact of visual brand identity on ready meals choice amongst young men

Ed J. Latham*, Katy Tapper, Christian Reynolds, Carsten Allefeld

** Department of Psychology & Centre for Food Policy, Rhind Building, St John St, London EC1R 0JD; UK*
Edward.latham@citystgeorges.ac.uk

Keywords: Branding, Masculinity, Food choice, Meat

British young men report consuming an increasing volume of meat which can have negative impacts for both health and planet. Many food brands, especially healthier and more sustainable brands, employ feminine visual brand identities: elements include colourful, elaborate designs, delicate shapes and script fonts. These feminine designs could be putting off young-men from choosing healthier, plant-based food. Use of more masculine visual brand identities could potentially increase the adoption of plant-based foods by young men. This study uses a discrete choice-based experiment to explore the impact of visual brand identity on ready meal choice amongst 18 to 35-year-old British men. The online choice based conjoint experiment will examine the relative influence of four design attributes (colour, graphic shape, brand name, font), alongside two product attributes (dish type, ingredients). The design attributes will be presented at three different levels: masculine, androgynous and feminine. Product attributes will consist of ingredients, leading with: beef (meat), meat-alternative mince (plant-based meat alternative), and tomato and red pepper (plant-based); dish types attributes will be Pasta Bake, Thai Red Curry and Rice Bowl. Participants will be shown randomly created product profiles consisting of each attribute at a specific level and asked to choose the product profile they prefer. We will examine the relative importance of each attribute at each respective level, e.g. masculine colours vs feminine graphics. We will also calculate an overall preferred product profile. Participant demographics will also be explored.

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Time your sniff: Does when you smell food matter for how much you eat?

Jiachun Li *, Arianne van Eck, Sanne Boesveldt

** Division of Human Nutrition and Health, Wageningen University and Research, Postbus 17, 6700AA Wageningen, The Netherlands*
jiachun.li@wur.nl

Keywords: Ambient odor, Food flavor, Food intake, Exposure timing

Many studies have examined the effects of food-related odors on food intake, with most exposing odors before eating. These studies generally report inconsistent effects on actual intake. In contrast, in a small number of studies where odor exposure occurred during eating, odor effects on intake have been observed, potentially through interactions with retronasal olfactory cues. This implies that the timing of odor presentation may act as a moderator of odor effects on food intake. The present study aims to examine the effect of ambient food odors presented at different time points (before vs. during eating) on food intake. The ambient odor is a noticeable but non-identifiable chicken odor (~50 mm on a 100 mm visual analogue scale), paired with potato chips with a highly congruent chicken flavor. A within-subject experimental design is employed, with 48 healthy adults each completing four experimental sessions under different odor exposure conditions: exposure before eating only, during eating only, both before and during eating, and a no-odor exposure control condition. During the eating phase, participants watch two episodes of Friends (45 min) while consuming chips ad libitum. Appetite is assessed before and after the session, and chips intake is measured by pre- and post-weighing the individual chips bowls. Data collection will commence soon, and results will be available by the time of the BFDG meeting. The study results will lead to a better understanding of how food odors influence snack intake in savory context and to inform future strategies for promoting healthier snacking.

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Dietary assessment at the Division of Human Nutrition and Health

Desiree A. Lucassen*, Corine W.M. Perenboom, Karin J. Borgonjen-van den Berg, Hanne B.T. de Jong, Els Siebelink, Elske M. Brouwer-Brolsma, Guido Camps, Edith J.M. Feskens

** Stippeneng 2, 6807 WE, Wageningen; the Netherlands*
desiree.lucassen@wur.nl

Keywords: Dietary assessment, Technology, Dietary intake, Human Nutrition Research

At the Division of Human Nutrition and Health of Wageningen University, we aim to continuously innovate dietary assessment methods to obtain the highest possible quality of dietary data. Our trained research dietitians conduct detailed dietary history interviews to collect intake data directly from participants. In addition, they prepare and document foods consumed during controlled dietary intervention studies or apply duplicate portion methods to determine the exact composition of meals and diets. We systematically integrate new technologies into our assessment strategies to further enhance accuracy and feasibility. Our web-based tools include Compl-eat™, a self-administered 24-hour dietary recall with an extensive nutrition calculation module; Dutch Food Frequency Questionnaire Tool™, a web-based platform for the development, assessment, and analysis of food frequency questionnaires; Eetscore®, a self-administered dietary quality screener with an optional personalized dietary advice module; and Catch-24®, an interviewer-administered 24-hour dietary recall tool specifically designed for use in low- and middle-income countries. In addition, we have developed a smartphone application for real-time dietary data collection. Traqq® can be used as either a dietary recall or a food record and allows data collection on one or multiple pre-specified days. Beyond self-reported methods, we also employ state-of-the-art sensor-based technologies to objectively measure eating behavior and food intake. These include the mEETr tray and the Snackbox, which use advanced pressure sensors to capture real-time consumption data. Through the continuous development and integration of innovative dietary assessment technologies, we strive to advance nutrition research and ultimately contribute to improved and more sustainable human health.

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Effect of dietary sweet taste exposure on glycaemic variability: the SWEET TOOTH study

Leoné Pretorius, Monica Mars*, Eva Čad, Merel van der Kruijssen, Claudia Tang, Hanne de Jong, Kees de Graaf, Janet James, Katherine Appleton

**Division of Human Nutrition and Health, Stippeneng 4, NL-6708WE, Wageningen University, The Netherlands; monica.mars@wur.nl*

Keywords: Glycemic variability, Sweet taste, Glucose homeostasis

Diet has a large impact on glycaemic variability. Public health guidelines suggest limiting sweet taste exposure - including foods sweetened by sugars and low-calorie sweeteners. The current study describes a secondary outcome in a subgroup of the SWEET TOOTH study, a parallel semi-controlled trial set up to investigate the effect of 6 months low, regular or high sweet taste exposure on sweet taste preference in adults (https://clinicaltrials.gov/study/NCT04497974). The effects of sweetness exposure on glycaemic variability was assessed with Continuous Glucose Monitoring (CGM). During the trial, 90 healthy adults (F/M: 67/23; aged 38±16y; BMI: 24±3 kg/m^2), evenly distributed among the intervention groups, wore CGM sensors for 10-14 days at baseline, month 6, and four-month follow-up (month 10). Extracted measures included mean interstitial glucose and measures for glycaemic variability: standard deviation (SD), coefficient of variation (CV), mean amplitude of glycaemic excursions (MAGE). Mean interstitial glucose was 5.55±0.06 mmol/L at baseline, 5.39±0.06 mmol/L at month 6, and 5.37±0.05 mmol/L at month 10; no significant changes within individuals or differences between the intervention groups were observed. Also the glycemic variability measures were not different: SD ($\chi^2(4)=3.47$, p=.48), CV ($\chi^2(4)=3.04$, p=.55), MAGE ($\chi^2(4)=3.84$, p=.43). Overall, participants adhered well to the assigned diets, as was shown by biomarkers of sweetener intake and 24h diaries. Our data shows that different levels of exposure to sweet-tasting foods do not affect glycaemic variability and therefore do not support the suggestion to reduce the intake of sweet-tasting foods to maintain better blood glucose homeostasis.

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Effect of dysphagia thickeners intake on satiety and postprandial blood glucose

Elena Martínez*, Amparo Tárrega, Laura Laguna

** Food Science Department, Instituto de Agroquímica y Tecnología de los Alimentos, CSIC. Avda. Agustín Escardino, 7, 46980 Paterna, Valencia, Spain*
emartinez@iata.csic.es

Keywords: Dysphagia, Satiety, Gum, Starch

Thickening agents are texture-modifying products that increase fluid viscosity to slow bolus flow and reduce risk of aspiration in people suffering from dysphagia. Commercial thickeners are generally made of gums or starch, or their combination. Despite their proven clinical efficacy for swallowing, it's hypothesized that commercial thickeners may intensify feelings of satiety, reducing hunger and appetite. The aim of this study was to investigate the effects of two thickeners on satiety and capillary blood glucose (CBG). The study was structured in 3 sessions. Participants were instructed to drink a glass of water that had either no thickener, a gum-based thickener, or a starch thickener. Alongside this, a fixed breakfast was provided. Seventy-two healthy people participated in the study. Satiety was assessed by participants through a questionnaire repeated four times: baseline, after consuming the water and breakfast, 1-hour post-ingestion and 2-hours post-ingestion. CBG was measured with a capillary glucometer at baseline, 1- and 2-hours post-ingestion. Results indicated that hunger and desire to eat decreased for the gum-based thickener (after 2 hours from eating) and starch thickener (after 1 hour from eating), compared to water without thickener. Postprandial CBG values showed differences among drunk water, after 2-hours post-ingestion, gum-based thickeners had higher glucose than water with starch thickener or water without thickener (the lower glucose peak after 2 h). Findings suggest that the intake of thickeners increases the feelings of satiety up to 2 hours, and that gum-based thickeners might slow down gastric emptying and glucose absorption, due to its gel-forming and high-viscosity properties.

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The effectiveness and feasibility of a ketogenic diet for reducing psychosis symptomology

Charlotte McCracken*, Pooja Saini, Greg Keenan, Jay Duckworth, Jason McIntyre, Oladayo Bifarin

** School of Psychology, Liverpool John Moores University, Tom Reilly Building, Byrom Street, Liverpool, United Kingdom. L3 3AF; UK*
C.L.McCracken@2025.LJMU.ac.uk

Keywords: Ketogenic diet, Low carbohydrate, Psychosis

Psychosis is a highly stigmatised and debilitating experience in which individuals experience a drastically distorted perception of reality. The proposed research outlines a mixed-methods study to test the effectiveness and feasibility of a ketogenic diet to improve psychotic symptoms and explore whether this promising dietary strategy can be implemented into a safe and practical intervention. A first quantitative experimental phase will compromise of a 12-week trial during which a minimum of 54 participants will adhere to a ketogenic diet, whilst wearing a continuous ketone monitor and providing capillary samples to monitor ketone levels to track adherence to the diet. Symptomology will be measured before, during and after the intervention to detect changes. Qualitative semi-structured interviews will be carried out with participants to explore lived experience, specifically feasibility and challenges, perceived individual benefits and intended continuation of the diet. A follow up will be completed 6 months post baseline comprising of psychological and physiological measures alongside an open-ended survey. Improvements in psychological outcomes may support evidence for a ketogenic diet as an early intervention for individuals experiencing psychosis, whilst findings from specific ketone measuring methods may inform future research regarding the most efficient and cost-effective way to monitor ketosis. Alongside this, we aim to create educational resources which can be provided to individuals experiencing psychosis detailing how the ketogenic diet may be beneficial for them, how to implement and follow the diet.

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The role of self-serving in children's vegetable consumption

Rosalie Mourmans*, Britt Fleischeuer, Pauline Dibbets, Katrijn Houben, Anouk E. M. Hendriks-Hartensveld, Anouk J. P. van den Brand, Ilse van Lier, Chantal Nederkoorn

** Maastricht University, Faculty of Psychology and Neuroscience, P.O. Box 616, 6200 MD Maastricht, The Netherlands;*
r.mourmans@maastrichtuniversity.nl

Keywords: Self-allocation, Autonomy, Dictator game, Vegetable intake

Young children's vegetable consumption is often insufficient, partly due to food rejection behaviors such as picky eating and food neophobia. Previous research suggests that allowing children to make choices and actively engage in food-related decisions can increase food acceptance and intake. Developmental research further shows that children tend to allocate resources in a relatively equitable manner, even when those resources are not highly preferred. Building on these insights, the present study examined whether actively allocating vegetables in a sharing context enhances children's vegetable consumption. Children aged 4-5 years (n = 142) were randomly assigned to either a distributing or a receiving condition. In the distributing condition, children actively allocated ten pieces of broccoli between themselves and a hypothetical classmate. In the receiving condition, children received a pre-divided portion of five broccoli pieces. Children were then invited to eat their share. Vegetable intake was assessed using a 10-point scale and broccoli liking was evaluated afterwards by the children using a 4-point smiley rating scale. Parents completed questionnaires assessing children's picky eating (Child Food Rejection Scale; CFRS) and prosocial behavior (Child Prosocial Behavior Questionnaire; CPBQ). Results showed that children in the distributing condition consumed significantly more broccoli and reported greater liking of the vegetable than children in the receiving condition. These findings suggest that engaging children in dividing food may enhance vegetable consumption and liking. Future research could investigate this autonomy-supportive approach in allocation-based contexts in everyday mealtime settings.

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Exploring early feeding and growth patterns for Avoidant/Restrictive Food Intake Disorder (ARFID) using the British Gemini twin cohort

Zeynep Nas*, Holly Mai Davis, Kristiane Tommerup, Moritz Herle, Simon Russell, Julian Baudinet, Rachel Bryant-Waugh, Alison Fildes, Francesca Solmi, Gillian Harris, Clare Llewellyn

** Department of Behavioural Science and Health, 1-19 Torrington Place, University College London, London, WC1E 7HB, United Kingdom*
z.nas.17@ucl.ac.uk

Keywords: Avoidant/Restrictive Eating, Feeding/Eating disorders, Appetite, Eating Behaviour

Avoidant/Restrictive Food Intake Disorder (ARFID) is an eating/feeding disorder characterised by a low interest in food, fear of eating and heightened sensitivity to food taste and texture. ARFID often emerges early and has serious consequences, yet possible early life risk factors for the condition is unknown. In this study, we explore prospective associations between feeding and growth patterns in infants who later develop ARFID symptoms. We used the Gemini study, a longitudinal population-based twin birth cohort with concurrent and previous ARFID symptoms parent-reported at 12–13-years (n=968). Logistic regressions explored prospective associations between feeding and growth patterns in the first 12 months (appetite, infant feeding modality (breastfed/formula-fed/mixed-fed), parental concern about their child's weight, parental feeding practices (pressure and restriction) and infant growth (weight-for-age z scores and weight change scores)) and later ARFID symptoms. Appetite, specifically early slower feeding (OR=1.47, 95%CI=1.13-1.90) and greater sensitivity to satiety (OR=1.35, 95%CI=1.03-1.77) were associated with increased odds of later ARFID symptoms. Higher weight throughout infancy was linked with 12-20% lower odds of ARFID symptoms and children with ARFID symptoms may have a slower weight gain trajectory compared to children without. Poor appetite (especially slower feeding and getting fuller more quickly) and weight stagnancy in infancy may be potential risk factors for later ARFID symptoms. This has important implications for early identification of eating difficulties, with possible markers of vulnerability tracing back to infancy, highlighting opportunities for early intervention.

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Addressing access and affordability of fresh fruit and vegetables in social housing communities: a clustered randomised-controlled trial protocol

Courtney Neal*, Natalie Taylor, Alexia Sawyer, Charlotte Hardman, Rachel Loopstra

** Department of Public Health, Policy and Systems, University of Liverpool, L69 3GB, UK*
courtney.neal@liverpool.ac.uk

Keywords: Fruit and vegetables, Food insecurity, Place-based intervention, Clustered randomised controlled trial

Poor physical access to retailers selling healthy foods at affordable prices can be a significant barrier to consuming a healthy diet, leading to increased risk of poor diet and diet-related illness. Social housing communities are particularly vulnerable to such barriers and associated outcomes. Yet, evidence overlooks how interventions improve access to and affordability of healthy foods impact diet quality within these communities. Our study addresses this gap by co-designing, delivering and evaluating a place-based intervention in Liverpool. Using geographical modelling, we will prioritise 12 target areas (0.5km radius) identified by their poor geographic access to healthy food and density of social housing stock from our housing association partners. We will randomise areas into three parallel arms: (1) Control (business as usual); (2) Weekly site visit by mobile greengrocer; (3) Vouchers to purchase fresh fruit and vegetables from mobile greengrocer + (2). We will recruit the main adult household food procurer from 40 households in each area (n = 480 households) to complete a six-month trial. At baseline, mid-point and endpoint, participants will complete a questionnaire measuring behavioural, psychological, social, and health-related variables. We will measure our primary outcome – fruit and vegetable intake – via 24-hour multiple-pass dietary recalls. The trial will produce novel insights into the dietary impact of place-based interventions to increase fresh fruit and vegetable access and affordability for a population at risk of diet-related health inequalities. We will use these data to model how national deployment of the interventions might impact health, economics and equity.

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When yuck foods stick: memory bias for disliked foods is related to pickiness in eating

Chantal Nederkoorn*, Anouk J. van den Brand, Ilse van Liers, Rosalie Mourmans, Britt Fleischeuer, Remco C. Havermans, Anouk E. Hendriks-Hartensveld

** Department of Clinical Psychological Science, Maastricht University, P.O. Box 616, 6200 MD Maastricht, The Netherlands*
c.nederkoorn@maastrichtuniversity.nl

Keywords: Picky eating, Memory bias, Food rejection, Information processing

Picky eaters often reject foods for reasons that are not always clear and may even refuse foods they previously enjoyed. Such behaviour may be driven by biases in information processing. More broadly, humans tend to prioritise negative or potentially threatening information. The tendency to remember disliked foods more readily than liked ones, may therefore contribute to persistent food rejection. In a longitudinal study, 310 caregivers and 299 children were assessed. Memory bias for foods was assessed in children at ages four and five. Children were shown eight images of ambiguous foods, each labelled as either "yummy" or "yuck". In a subsequent recognition task, children were asked to identify each target image from a distractor and recall the associated label. Picky eating was assessed using two parent-report measures (the Child Food Rejection Scale and Fruit and Vegetable Liking) and a behavioural taste test. Results indicated no differences in food recognition accuracy; however, children at both ages remembered "yuck" labels significantly better than "yummy" labels. At age five, this negativity bias was associated with taste test performance and, marginally, with Fruit and Vegetable Liking: children higher in picky eating were more likely to remember foods as "yuck." These findings suggest that picky eaters may encode negative food information more strongly or adopt a "better safe than sorry" strategy, defaulting to a negative label when uncertain. Such memory biases may therefore play a role in maintaining picky eating behaviour.

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Chewing behaviour and food bolus formation during dental transition in school age children

Léna Nicolle*, Jamila Mejia Chavez, Ciaran G. Forde, Carole Tournier

** Université Bourgogne Europe, Institut Agro, CNRS, INRAE, UMR CSGA, 21000 Dijon, France*
lena.nicolle@inrae.fr

Keywords: Child, Dentition, Food Oral Processing, Food bolus

Food Oral Processing (FOP) refers to the mechanisms that transform food into a swallowable bolus. In adults, FOP strongly influences sensory perception, ad libitum intake, digestion and metabolism. In children, dental transition influence FOP, as 20 primary teeth are progressively replaced by 28 permanent teeth between the ages of 6 and 12yrs. While previous studies have shown links between dentition and chewing efficiency in children, little is known about how dental development affects bolus formation for real foods. This study describes the evolution of chewing behaviour and food bolus formation between the ages of 6 and 12yrs, in comparison to young adults. Ninety children at three different stages of dental development (first, intermediate and second) and 30 adults aged 25–35yrs were involved. Oral physiology (dentition, tongue strength, chewing efficiency) was determined. Chewing behaviour (chewing duration, chewing speed, number of chews) was analyzed using video recordings while participants consumed foods with varying textures (carrot, rice, cheese, biscuit). Food boluses collected at swallowing were characterized by particle size distribution, saliva incorporation, and hardness. Finally, children's food texture preferences and appetitive traits were evaluated (CEBQ) using validated instruments. Tongue strength and chewing efficiency increased from 6–8 to 10–12yrs and were highest in adults. Chewing rate was faster (chews/sec) for softer foods than for harder and increased with age, but only for harder products. Saliva uptake during FOP remained stable across ages, whereas bolus hardness depended on both age and food type. This study explains how dental transition contribute to stable FOP's and healthy eating habits in childhood.

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A systematic review and meta-analysis of randomised control trials examining the impact ultra-processed vs. less processed food has on energy intake and body weight

Eric Robinson, Jane Brealey, Jenna R. Cummings, Rebecca Evans, Amy Finlay, Esther Fisher, Thomas Gough, Andrew Jones, Madeleine Jutla, Euba Morenikeji-Ibilola, Victoria Norton*

** Department of Psychology, University of Liverpool, Liverpool, L69 7ZA, United Kingdom*
v.l.norton@liverpool.ac.uk

Keywords: Ultra-processed food, Energy intake, Nutrient profile, Randomised controlled trials

Ultra-processed food (UPF) may increase energy intake and weight gain, but evidence synthesis from randomised control trials (RCT) is lacking. This insight will be valuable to identify gaps and inform future RCT design. A pre-registered systematic review and meta-analysis of RCTs was conducted comparing effects of UPF vs. less processed food on energy intake and/or body weight in humans. Secondary analyses examined effects on hunger/fullness, eating rate, palatability and considered the role of nutrient profile in explaining results. Electronic databases (PUBMED, SCOPUS, Cochrane Central Register of Controlled Trials, grey literature) were searched. Ten eligible studies were included. The meta-analysis indicated that UPF trial arms tended to have higher energy intake (k=7 studies, Standardised Mean Difference (SMD)=0.49). Weight change and eating rate (k=5) were greater in UPF trial arms; however, there were no differences in hunger/fullness or palatability. UPF vs. less processed foods used in trials differed in nutrient profile. Sub-group analyses suggested that effects of UPF on energy intake were observed when UPFs used in trials were higher in energy density than less processed foods (SMD=0.81), but not when energy density was similar (SMD=-0.02). RCTs to date are suggestive that UPFs can increase energy intake/body weight and results may be explained by nutrient profile of foods used. Further research is needed to understand whether the level of processing impacts on health outcomes independent of nutrient profile.

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Reliability and repeatability of a Novel Scale assessing enablers and barriers of Indigenous Fruit and Vegetable consumption for Uganda

Lilian Nakayiki Nyanzi*, Joshua Wesana, Joweria Nambooze, Bart van der Schueren, Christophe Matthys, Tonny Kiyimba

** Clinical and Experimental Endocrinology, Department of Chronic Diseases and Metabolism, KU Leuven, Herestraat 49, box 902, Belgium*
lilian.nakayiki@kuleuven.be

Keywords: Reliability, Indigenous, Scale

Interviews and focus group discussions are widely used to explore determinants of fruit and vegetable consumption, yet these approaches are resource-intensive and not scalable to larger populations. This study developed and validated a 33-item scale for assessing the enablers and barriers of Indigenous Fruit and Vegetable consumption. Scale development followed a four-phased approach; item generation, expert assessment, cognitive interviewing, and psychometric evaluation. Reliability was assessed using Cronbach`s alpha (α), while test-retest reliability was assessed using Intraclass Correlation Coefficient (ICC) and repeated Cronbach`s Alpha. Participants were 444 adults (28.6% male,71.4% female; mean age 38.4 years). Indigenous Fruit (IF) and Indigenous Vegetables (IV) enabler scales showed moderate reliability (IF enablers: α=0.589, ICC=0.589[0.531–0.642]; IV enablers: α=0.639; ICC=0.639[0.588–0.686]) while the corresponding barrier scales demonstrated acceptable reliability (IF barriers: α=0.788, ICC=0.788[0.758–0.816]; IV barriers: α=0.792, ICC=0.792[0.762–0.819]). Deleting seven IF enabler items and four IV enabler items raises Cronbach`s alpha to 0.702 and 0.706, respectively, but these items were retained to preserve the scale`s conceptual purpose. At test-retest, all scales exceeded Cronbach`s α > 0.70 (IF: enablers α=0.728, barriers α=0.810; IV: enablers α=0.782, barriers α=0.794). The scale is a reliable tool for assessing determinants of Indigenous Fruit and Vegetable consumption in the Ugandan context.

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Vegans are seen as taste martyrs by people who eat animal-products – but they're not

Aycan Adıgözel, Dagnė Bagdonavičiūtė, Lisa Cramer, Iris van de Poll, Tess Davis, Cristina Stewart, Esther K. Papies*

** Behavioural Science Institute, Radboud University, 6525GD Nijmegen, The Netherlands*
esther.papies@ru.nl

Keywords: Plant-based diets, Behaviour Change, Food motives

Shifting to more plant-based diets is essential to mitigate climate change. However, plant-based foods are often perceived as bland by people who consume meat, and they are typically presented as healthy or vegan, but not as enjoyable. In addition, vegans are often stereotyped as "moral", which might conflict with a short-term enjoyment motive, and might imply that they are ok with eating bland food. Here, we examined perceptions of vegans' food motives, to test the notion that vegans are seen as taste martyrs, in line with the "bland" food they consume. In two pre-registered online studies, omnivore (N1= 152, N2 = 209), vegetarian (N2 = 166), vegan (N1 = 34, N2 = 166) participants rated their own liking and health food motives, the other groups' liking and health motives, as well as their openness to shift towards more plant-based diets (omnivores only). As predicted, omnivores and vegetarians rated vegans' liking motives lower than vegans themselves did. Unexpectedly, the same was true for health motives. As predicted, when omnivores perceived a larger discrepancy between their own and vegans' liking motives, they were less open to a more plant-based diet. Descriptives show that vegans care about liking, health, climate/biodiversity, and animal welfare when they choose food, while omnivores think they only care about climate and animal welfare. Underestimating vegans' motivation to enjoy food, or seeing them as taste martyrs, could have implications for people's willingness to shift toward plant-based diets, and could reduce the effort put into preparing enjoyable vegan foods.

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“I'm always very tense”: The Experience of Feeding a Child with Avid Appetite Amid Food Insecurity

Hetal H. Patel*, Jacqueline Blissett, Emma Haycraft, Sarah Newton, Abigail Pickard, Katie L. Edwards, Claire Farrow

** School of Psychology and Institute of Health & Neurodevelopment, Aston University, Birmingham, UK, B4 7ET; UK* *180027747@aston.ac.uk*

Keywords: Avid appetite, Food insecurity, Feeding, Child eating behaviour

The number of UK families experiencing food insecurity is rising and is particularly prevalent in children with an avid appetite, who display high food responsiveness, emotional eating, enjoyment of food, and low satiety responsiveness. Feeding children with these appetite traits while experiencing food insecurity is likely even more challenging, therefore, this study aimed to explore caregivers’ experiences of feeding children with avid appetites within food-insecure households, to understand how appetite influences feeding within this particular socio-economic context. Semi-structured interviews were conducted online with parents (n = 10) experiencing financial difficulties and have a child aged 5-9 years with an avid appetite. Data were analysed using reflexive thematic analysis. Four core themes were identified. ‘Children’s Avid Appetites: Persistent and Unpredictable’ describes children’s insatiable and unpredictable appetites. ‘Feeding in the Context of Scarcity: Trade-offs, Control and Survival’ outlines how parents balanced avid appetites with limited resources. ‘Feeding as Emotional Work: Stress, Guilt and Mental Load’ illustrates the intensified cognitive and emotional labour of feeding a child with an avid appetite under food scarcity. Finally, ‘Support and Barriers: Making Feeding Easier’ outlines support services parents used to make feeding easier, offering suggestions for further support. This novel research highlights that food insecurity and appetite traits intersect in ways that shape both children’s eating behaviours and parents’ emotional wellbeing. This information will help tailor interventions targeting parental feeding practices to support healthy child eating behaviour, ensure a wide reach, and avoid exacerbating health inequalities.

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Healthy beverages in a sugary world: Dutch adolescents' perspectives on water and other healthy beverages; a qualitative multi-method study

Rian Pepping*, Vincent Busch, Juliette Lukowski, Arnoud Verhoeff, Jacob C. Seidell, Barbara Groot-Sluijsmans

** Nieuwe Achtergracht 100, 1018 WT, Amsterdam, Netherlands*
r.pepping@amsterdam.nl

Keywords: Adolescents, Healthy beverages, Water, Misinformation

Although high-quality tap water is widely available in the Netherlands – a healthy alternative to sugar-sweetened beverages (SSBs) – young people are increasingly exposed to ultra-processed and unhealthy beverages (Neufeld et al., 2022). Despite extensive research on the consumption of SSBs ages by adolescents, little is known about their perceptions, barriers and facilitators in relation to healthier beverages. The aim of this study is twofold: (1) to explore how adolescents conceptualise healthy beverages; (2) to gain a holistic understanding of the lived experiences that shape their behaviour with respect to healthy beverages. A qualitative multi-method approach was used (Morse, 2003), combining street intercept interviews (Graham, 2014), an interactive group session, and semi-structured, in-depth interviews. Sixty Dutch adolescents (aged 12–16) attending pre-vocational secondary schools participated. Data were collected from April to June 2025, both online and in person, and analysed using reflexive thematic analysis (Braun & Clarke, 2023). The findings revealed a hierarchy in beverage perceptions among Dutch teenagers: water was seen as the healthiest, while energy drinks and regular soft drinks were identified as unhealthy. Confusion persisted about the safety or the health effects of tap water, fruit juices and artificially sweetened beverages. This was fuelled largely by online influencers and marketing strategies. Adolescents struggle to identify truly healthy beverages due to grey areas, rumours, and mis- and disinformation, often amplified by platforms like TikTok. Scepticism about tap water safety and confusion about fruit juices further clouds their perceptions. Clear, consistent and discerning communication from scientific, governmental and public health organisations, along with stricter marketing regulations and strategies to counter misinformation, is essential to support young people in making healthier beverage choices. Additionally, there is a clear need for a broader range of healthy beverages that genuinely meet adolescent preferences.

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A longitudinal person-centred approach to understanding the stability in patterns of parents feeding practices

Hannah Povall*, Jacqueline Blissett, Abigail Pickard, Katie Edwards, Catherine G Russell, Kathleen Lacy, Claire Farrow

** School of Psychology, Health & Clinical Sciences, Aston University, Birmingham, B4 7ET, UK*
hpova16@aston.ac.uk

Keywords: Parent feeding practices, Longitudinal, Latent profiles

Prior research has utilised person-centred analytical approaches to identify distinct parent feeding profiles, distinguished by use of controlling, structure and autonomy support feeding practices. However, little is understood about how these patterns of feeding practices evolve over time as children age. This study aimed to examine stability of feeding profiles over a two-year period. Parents of children aged 3-5 years (M=4.1 years) from the UK were invited to take part in an online survey in 2022 (Time 1), and a follow-up survey in 2024 (Time 2). Parents (n=505) completed the Comprehensive Feeding Practices Questionnaire. Latent Transition Analysis was used to examine the probabilities of parents transitioning between profiles over the two-year period. Three profiles were identified at both time points, chosen based on theoretical consideration and fit indices. Profile 1 (T1: 33.9%, T2: 28.7%) showed moderate use of controlling practices and lower use of structure and autonomy support practices. Profile 2 showed lower use of controlling practices and higher use of structure and autonomy support practices (T1: 28.3%, T2: 30.3%). Profile 3 (T1: 37.8%, T2: 41%) showed high use of all feeding practices. High levels of stability were found in Profile 2 (95.8%) and Profile 3 (96.3%). Profile 1 displayed the most transition with 11% of parents moving to Profile 3, and 7% of parents moving to Profile 2. Future research could identify potential predictors of transition from Profile 1 which could uncover how to support parents with using more responsive feeding practices with their children.

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Understanding mealtime priorities of Australian parents with children aged three-to five-years

Hannah Povall*, Kathleen Lacy, Mohammadreza Mohebbi, Claire Farrow, Jacqueline Blissett, Catherine G. Russell

** School of Exercise and Nutrition Sciences, Deakin University, Burwood, VIC 3125, Australia*
s224324749@deakin.edu.au

Keywords: Family mealtime, Decision making, Parenting

Parent mealtime priorities e.g. family involvement and nutrition, are associated with children's fruit and vegetable intake. Research using rating scales indicates parents endorse multiple mealtime priorities but cannot explore how parents' trade-off competing priorities. While Discrete Choice Experiments (DCEs) have examined trade offs in snack provision, this methodology has not been applied to mealtimes. This DCE aimed to determine the relative importance of parents' mealtime priorities. Parents (n=187) of three-to five-year olds living in Australia completed an online DCE on Sawtooth. Participants were asked to select the mealtime scenario they would most and least likely choose with their child. Mealtime scenarios systematically varied in attributes and levels so that parents had to trade off competing priorities: Price (cheap, average, expensive), Ease of preparation (easy, medium, hard), Child involvement in mealtime preparation (yes, no), Nutrition (low, moderate, high) and Your child's likely response (accepting, neutral, resistant). Logit models were used to determine relative importance: Your child's likely response was the most important mealtime priority (relative importance = 38.2%), followed by Nutrition (28.7%). Price (16.7%), Ease of preparation (13.5%) and Child involvement in mealtime preparation (2.9%). Parents preferred meals that children were accepting of (utility =0.90, $p<0.001$) over meals children would likely reject (utility = -1.2, $p<0.001$), and preferred meals that were high in nutrition (utility = 0.69, $p<0.001$) in comparison to low (-0.89, $p<0.001$). Parents prioritised their child's anticipated acceptance which may be linked to leniency in offering favourite or familiar foods. Research about how to support parents with strategies for child food acceptance within nutritious mealtimes is needed.

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Enhancing trust in regulators does not affect low-calorie sweeteners consumption

Cristina Radu*, Paul Christiansen, Jason C. G. Halford, Joanne A. Harrold, Charlotte A. Hardman

** Department of Psychology, University of Liverpool, Liverpool, L69 7ZA, UK*
cradu@liverpool.ac.uk

Keywords: Sweeteners, Trust, Consumption, Attitudes

Sugar-sweetened beverages are a notable contributor to high consumption of free sugars, a dietary practice linked to negative health consequences. Low-calorie sweeteners (LCS) offer the choice of consuming sweet beverages without the deleterious effects of sugar, yet consumer safety concerns have not dissipated. This pre-registered study explored whether enhancing trust in regulatory bodies would increase choice and consumption of LCS beverages. University staff and students (n=150; 128 females), attended a single laboratory session study and were randomly assigned to either a Trust condition, reading a text where food regulators confirmed LCS safety, or a Control condition, reading a matched text on hydration. After completing questionnaires and eating savoury snacks, they selected and drank from one or more of three offered beverages (7up regular, 7up zero sugar or water). A multinomial logistic regression model revealed a non-significant association between the Trust condition and choosing the LCS beverage (p=.632, OR= 0.80, CI = 0.31 to 2.04). The overall model was also non-significant. Testing LCS consumption, a linear regression model revealed that the Trust condition predicted approximately 1% of variance in LCS amount consumed (p=.287). There was also a non-significant association between the Trust condition and consuming more LCS (p= .287). In conclusion, this study found no evidence that enhancing trust in LCS regulators increases choice or consumption of LCS beverages. The findings suggest appealing to authority might not override personal beverage preferences, though other factors could be considered.

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Cognitive and behavioural effects of removing high-fat, high-sugar diets in rodents: A meta-analysis

Simone Rehn*, Isabella Eikelis, Joanne Gladding, Laura Bradfield, Michael Kendig

** 15 Broadway, Ultimo 2007, NSW Australia*
simone.rehn@uts.edu.au

Keywords: High fat high sugar diet, Memory, Rodent models, Meta-analysis

In addition to their effects on physical and metabolic health, high-fat, high-sugar (HFHS) diets are associated with cognitive impairment and behavioural effects. It is not clear whether these impairments persist or recover when the high-fat, high-sugar diet is replaced with a healthy diet, i.e., diet reversal. To clarify mixed effects reported to date, we performed a systematic review and meta-analysis of the effects of diet reversal on cognition and behaviour in 27 rodent studies. Our review included studies which fed rodents either a high-fat, high-sugar or combined HFHS diets for at least two weeks, replaced this diet with healthy chow for at least 24 hours and then assessed cognition, anxiety, depression, motivation or locomotor activity. Meta-analyses revealed that diet reversal significantly improved memory performance relative to rodents maintained on HFHS diets but did not restore memory to the level of healthy chow-fed controls. Diet reversal significantly improved memory in studies using high-fat, but not high-sugar or combined high-fat/high-sugar diets. Meta-regressions also revealed test-dependent effects, with improvements after diet reversal only found in the novel object location test. Diet reversal did not alter anxiety-like or depression-like behaviour, motivation, or locomotor activity. Further work is needed to characterise the temporal changes in cognition across longer durations of diet reversal. Heterogeneity estimates were moderate to high across cognitive and behavioural outcomes, and risk of bias was generally low. Results demonstrate that diet-induced cognitive impairments are amenable to healthy diet intervention in controlled animal models, underscoring the need for public health nutrition strategies designed to reduce intake of foods high in sugar and fat.

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Dietary fat and sugar consumption is associated with perceived health of fast-food brand logos

Simone Rehn*, Gemma Hart, Anoushka Parylo, Jardena Sturm, Laura Bradfield, Adrian Camilleri, Natalina Zlatevska, Michael Kendig, Poppy Watson

** 15 Broadway, Ultimo 2007, NSW Australia*
simone.rehn@uts.edu.au

Keywords: Fast-food logos, Liking, Health, Diet quality

Discretionary foods high in sugar, salt, and saturated fat are heavily marketed with easily recognisable brand logos. This study investigated whether self-reported consumption of foods high in fat and sugar was associated with attitudes such as liking, familiarity, excitement, and perceived healthiness of fast-food and sugary drink brand logos, and with body mass index (BMI). In Study 1, Australian university students completed an in-person laboratory study; in Study 2, U.S.-based participants completed an online study remotely. Participants rated major commercial fast-food and beverage brand logos on liking, familiarity, perceived healthiness, frequency of interaction, and completed dietary questionnaires and demographic measures. Both studies found a positive association between how much participants liked fast-food brands and how healthy they perceived them to be, a relationship that was not predicted by education level. Liking and healthiness ratings for fast-food brands correlated positively with self-reported fat and sugar consumption, even after controlling for age, gender and education. These associations were not observed for technology and social media brands. Both reward-based eating and brand attitudes independently predicted dietary patterns. Greater reward-based eating tendencies predicted BMI in U.S.-based participants, but not in Australian university students. These findings suggest that positive attitudes toward fast-food and sugary drink brands are linked to poorer diet quality. However, it remains unclear whether positive brand attitudes lead to poorer diets, or if unhealthy eating habits shape more favourable views of these brands. Further research is needed to clarify the directionality and underlying mechanisms of these associations, with important implications for public health.

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Regaining food pleasure: can sensory-adapted food design improve the eating experience in patients with cancer?

Reisya Rizki Riantiningtyas*, Anestis Dougkas, Florence Carrouel, Amandine Bruyas, Agnes Giboreau, Wender L.P. Bredie

** Health Systemic Process UR4129, University Claude Bernard Lyon 1, 69008 Lyon, France & Institute Lyfe Research Centre, 69130 Ecully, France*
rrriantiningtyas@institutlyfe.com

Keywords: Sensory alterations, Cancer, Food design

Sensory alterations are highly prevalent among patients with cancer and are associated with reduced food enjoyment, lowered appetite, and altered eating. Beyond changes in taste and smell, patients frequently experience somatosensory alterations and oral symptoms which can further compromise food perception and eating experience. The study aimed to develop sensory-adapted food design for patients with cancer and to evaluate their hedonic acceptance. This study consisted of two parts. The first part involved developing sensory-adapted food designs addressing the sensory and oral challenges experienced by patients. Six food concepts were developed in collaboration with research chefs, targeting saliva stimulation through texture and flavour enhancement. A focus group discussion involving patients (n = 4) explored their eating experiences and opinion on the food concepts. Two food concepts (croquette and panna cotta) were further developed following the feedback received in the session. The second part involved 82 oncology patients (digestive, breast, gynaecological, head and neck, and lung cancers) undergoing active treatments. Patients evaluated sensory-enhanced and the standard versions of the food: flavour-enhanced croquette and texture-enhanced panna cotta. No significant difference in liking was observed for the two versions of croquettes ($p=0.042$, Cohen's $d=0.230$), whereas the texture-enhanced panna cotta received significantly higher liking scores than the standard version ($p=0.007$, Cohen's $d=0.305$). This suggests that the effect of sensory modifications on food liking may depend on the type of food and shows the relevance of sensory and oral factors in eating experiences of cancer patients.

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Infants' social learning about foods

Camille Rioux*, Karola Schlegelmilch, Olivier Mascaro, Annie E. Wertz

** 17 rue Sully, 21000 Dijon, France*
camille.rioux@inrae.fr

Keywords: Food learning, Social learning, Infancy

Food learning in infancy largely relies on social learning: Infants learn that something is edible when they observe someone else eating it (i.e., eating actions). However, the role of other forms of food-related social information remains unknown. Here, we examined how infants use two additional social signals that are ubiquitous in their everyday life and essential components of human food behavior: others' food-processing actions (e.g., cutting a carrot) and their emotional expressions toward food. Experiment 1 examined how infants learn about food using others' emotions. Fourteen-month-olds (N=48) were familiarized with an adult displaying disgust toward a novel food A (Disgust condition) or anger toward food A (Anger condition). In both conditions, the adult expressed a neutral emotion toward a second novel food B. At test, infants observed the adult eating food A (an incoherent event) and food B (a coherent event), and infants' looking times were recorded. Infants looked longer at the incoherent event in the Disgust condition but not in the Anger condition, indicating that they expected an adult to avoid eating a food previously associated with disgust, but not anger. Experiment 2 examined whether infants differentially attend to eating and food-processing actions compared to food-irrelevant actions. Twelve-month-old infants (N=72) watched side-by-side videos in which an adult performed different actions on two novel foods while infants' gaze behavior was recorded. Depending on condition, actions included eating, cutting, or touching. Infants differentially attended to eating and food-processing actions relative to the control action. Together, these findings help identify important mechanisms underlying infants' food learning and demonstrate selectivity in how infants use social information about food.

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Food addiction is conceptualised differently from drug addiction

Peter J. Rogers*, Greig Dickson, Kitty Costelloe, Yeliz Vural

** Nutrition and Behaviour Unit, School of Psychological Science, University of Bristol, Bristol, BS8 1TU, UK*
peter.rogers@bristol.ac.uk

Keywords: Foods, Drugs, Addiction

Scientific and public discourse asserts that ultra-processed foods, sugar, and chocolate possess addictive properties. Implicit or explicit in this narrative is the assumption that food and drug addiction share mechanistic and behavioural features – a view formalised in the Yale Food Addiction Scale, which adapts DSM-5 criteria for substance use disorder to measure trait food addiction. We investigated the extent to which the public conceptualises food and drug addiction similarly. In an online study, 95 women and 53 men (mean(SD) age 32(15) years, BMI 23.4(4.5)) rated various foods, drugs, and activities for addictiveness ('In your opinion, generally how addictive is/are [item name]'; 0-100-point scale anchored 'not at all' and 'extremely'). The order in which the various items appeared was randomised across participants. Mean(SD) ratings were as follows. Drugs: heroin 87(26), tobacco (cigarettes) 84(22), cocaine 81(26), vaping 79(25), alcohol 72(22), cannabis 66(28). Foods: sugar 79(19), chocolate 72(23), ultra-processed foods 71(23). Activities: social media 81(20), gambling 74(27), gaming 64(27), shopping 56(26). Factor analysis (varimax rotation) identified two main factors with: (1) high loadings (0.55-0.90) for the drugs, gambling, and gaming; and (2) high loadings for the foods, social media, and shopping (0.65-0.76). We conclude that the high ratings of addictiveness for the foods might be due to people finding those foods especially difficult to resist, and/or due to frequent exposure to food addiction narratives. Even so, in their minds, the nature of the addictiveness of those foods appears to differ from the nature of the addictiveness of illicit and licit drugs (including nicotine), and irrespective of route of drug administration – injection, inhalation, or oral.

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How methodology shapes knowledge on emerging adults' cooking competence

Line Rossen*

** Aarhus University, Bartholins Alle bygning 1350 9-11Denmark*
linros@psy.au.dk

Keywords: Cooking competence, Emerging adults, Methodology, Learning

Cooking competence encompasses the practical knowledge and skills required to prepare meals and is intertwined with identity, social expectations and emotions (van Kesteren & Evans 2020 Appetite 147:104503; Fischler 1988 Soc Sci Inf 27:275–292). Research has largely focused on parental involvement and formal instruction, leaving less examined how cooking competence develops in other life stages. The transition out of the parental home appears significant, as emerging adults report increases in cooking competence (Wilson et al. 2017 Appetite 108:270–276), with food preparation patterns tracking into later adulthood (Laska et al. 2012 Public Health Nutr 15:1150–1158). The purpose of this study is to explore how emerging adults learn cooking competence through practice and how methodological choices shape access to this learning. Cooking and learning are embodied, routinised and often difficult to articulate retrospectively, which limits the capacity of traditional interviews to capture tacit and unreflective aspects. Direct observation may offer greater insight but risks intruding on everyday cooking and altering practices. To address these challenges, the study applies video-elicited interviews. Participants self-record their cooking, thus providing a contextual foundation for subsequent semi-structured interviews (Pink2012 Situating Everyday Life). Principal results indicate that methodological choices create and restrict access to knowledge: recruitment procedures and data-collection formats privilege participants who are confident and resourceful within academic settings, while those feeling insecure about their cooking remain underrepresented. This uneven participation shapes which experiences enter the evidence base and thus limits knowledge. This study highlights that methodology influences access, participation and the forms of knowledge produced, pointing to the importance of considering equity and ethics in research on cooking competence and learning.

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The effects of glucagon-like peptide-1 receptor agonist use on chemosensory systems and ingestive behavior

Giorgia Rutigliani*, Richard D. Mattes

** Purdue University, West Lafayette, IN 47907, USA*
grutigli@purdue.edu

Keywords: GLP-1RA, Chemosensory function, Ingestive behavior

Glucagon-like peptide-1 receptor agonists (GLP-1RAs) are increasingly prescribed to improve glycemic control and promote weight loss in individuals with type 2 diabetes and obesity. These effects are mediated by coordinated peripheral and central mechanisms, including enhanced glucose-dependent insulin secretion, suppressed glucagon release, delayed gastric emptying, particularly during early treatment, and reduced energy intake. Centrally, GLP-1 receptors are expressed in brain regions involved in appetite and reward processing, providing a biological basis for reduced hunger, food reward, and cravings. Emerging evidence suggests that GLP-1RAs may alter taste perception and food preferences, however findings are mixed, possibly reflecting limited control over duration of use. Accordingly, this parallel-group, cross-sectional study examined associations between GLP-1RA use and chemosensory function in three groups: individuals planning to use GLP-1RAs, individuals using GLP-1RAs for ~1 or ~6 months. Participants completed an array of assessments of chemosensory function. Further, because sensory function may influence food choice with implications for diet quality, metabolic health and weight management, we also assessed indices of ingestive behavior using physiological, behavioral, and self-report measures. Preliminary analyses have revealed time- and domain-specific effects of GLP-1RA use. Sweet taste thresholds were higher in the six-month group compared to non-users and one month-users, with no differences in other taste qualities or olfactory function. Questionnaire measures indicated reduced food reward and cue responsivity in the six-month group, whereas the cephalic-phase salivary response to food cues was reduced only in the one-month group. These preliminary findings highlight the need for further investigation of sensory and ingestive mechanisms associated with GLP-1 receptor agonist use and their potential relevance for dietary guidance.

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From message to mouth: the effects of message framing on willingness to try, and responses toward, insect-based foods

Datin Shah*, Katy Tapper, Carsten Allefeld, Christian Reynolds, Roger Highfield

** School of Health and Medical Sciences, City St George's, University of London, Northampton Square, London, EC1V 0HB, United Kingdom*
Datin.Shah@citystgeorges.ac.uk

Keywords: Edible insects, Messaging, Consumer behaviour, Sustainable food

Growing concerns about health and environmental pressures have increased interest in insect-based foods (IBFs) as a nutritious and sustainable alternative to traditional protein sources. However, consumer acceptance of IBFs remains low, particularly in Western countries. Although previous research has examined strategies to influence consumer perceptions and willingness to consume edible insects, much of this work has been in laboratory or online environments. This pre-registered study examines how different types of product messaging influence consumer behaviour and reactions towards IBFs in a real-world setting: the Science Museum in London. Visitors to the museum are invited to complete a touchscreen quiz about food sustainability. Towards the end of the quiz, participants are randomly exposed to one of four brief messages about IBFs - emphasising health, taste, environmental impact, or exclusivity - or they see no message. Participants can then choose to receive a voucher to try an IBF sample. Participants who redeem the voucher at the museum café receive a flyer with a QR code to an online survey about the sample, where they are asked to rate it on pleasantness of taste (liking) and how much they would like to eat more (wanting). We will assess whether different messaging affects voucher uptake (primary outcome) and sample ratings of liking and wanting (secondary outcomes). The findings could help inform the marketing strategies of businesses selling IBFs, while also furthering our scientific understanding of food acceptance, particularly in relation to neophobia and disgust.

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Social norm messages and intentions to eat meat and plant-based meals

Maxine Sharps*, Helen Coulthard

** De Montfort University, School of Applied Social Sciences, The Gateway, Leicester, LE1 9BH, UK*
maxine.sharps@dmu.ac.uk

Keywords: Social norms, Plant-based eating, Meat reduction

Social norm messages influence eating behaviour, however, less is known about their effect on meat and plant-based meal intake. Two online studies examined whether social norm vs. health messages as captions on Instagram posts affected adults' intentions to eat meat and plant-based meals. In Study 1 (n=108, Mean age=22.67, SD=7.20, 94 Females) using a between-subjects design participants were exposed to three Instagram posts displaying images of plant-based foods and one of three types of captions (descriptive norms (describing the meat-free behaviour of most students) vs. injunctive norms (indicating most students' approval of plant-based eating) vs. health messages (about the benefits of plant-based meal intake). Participants' meat and plant-based meal intake intentions were examined. There were no significant main effects of condition on intentions to eat meat or plant-based meal alternatives. In Study 2 (n=104, Mean age=20.90, SD=4.37, 82% F), participants were randomly assigned to a condition in a 3 (message type: ingroup descriptive vs. outgroup descriptive vs. health) x 2 (ingroup status: high vs. low affiliation) between-subjects design. Participants were shown the same three Instagram posts, but the captions were either descriptive norms about students at their university (in-group), students at a different university (outgroup descriptive) or health messages. Participants' meat and plant-based meal intake intentions were examined. There were no significant main effects of condition or ingroup status on intentions to consume or reduce meat or plant-based meals. There were also no significant interactions. Exposure to social norm messages as Instagram captions for plant-based foods did not affect intentions to eat meat or plant-based meals in these studies.

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"...am I really unhealthy now?" How do 10-15-year-olds interpret messages about eating and body weight?

Florence Sheen*

**School of Psychology and Vision Sciences, University of Leicester, University Rd, Leicester LE1 7RH; UK*
fms15@leicester.ac.uk

Keywords: Adolescents, Eating messages, Eating behaviour

Adolescents receive messages about (healthy) eating and body weight that are often not constructive to their health and wellbeing. In addition, adolescents become increasingly influenced by peers and social media, consuming online content increasingly without parent guidance. This qualitative study explored what messages adolescents receive about eating and body weight from various sources (e.g., family, peers, social media) and how they interpret them. Adolescents (10-15-year-olds) participated in 1:1 interviews to discuss messages they hear about eating and body weight. This included a scenario-building task where adolescents focused on a particular message and explored how an adolescent might react to it. All interviews (N=16) were transcribed and analysed using thematic analysis. Findings demonstrated that adolescents receive various message from different sources, mostly notably parents, school, peers and social media, many of which contradicted each other. Some adolescents were able to dismiss unhelpful or irrelevant messaging around eating and body weight, whilst others highlighted feelings of insecurity, messages 'getting in their head', or causing worry about friends. Scenarios created by adolescents included narratives around compassion in navigating unhelpful or simplistic eating/body weight messages around, supporting individuals to eat well and/or manage their weight, or demonstrating how messages could lead to problematic thoughts or behaviours. These findings illustrate how adolescents are interpreting eating and body weight messages, but also the lack of adolescent-facing resources providing evidence-informed, clear guidance on eating and body weight. Additionally, it highlights where adolescents, through the power of storytelling, could support communication about developing positive relationships with food and their bodies during this key developmental stage.

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From intentions to eating behaviour: the role of willingness and social context in a cultivated meat tasting study

Harmehak Singh*, Lisa Di Lemma, Greg Keenan, Rosanna Cousins

** School of Psychology, Liverpool Hope University, Liverpool, L16 9JD, UK*
singhh@hope.ac.uk

Keywords: Cultured meat , Social influence, Tasting session, Novel foods

Cultivated meat is being developed as an alternative to conventional meat, yet its consumer uptake in real-world settings remains uncertain. This three-phase study examines the link between willingness to try cultivated meat and eating behaviour in a social context, and explores the role of perceived peer behaviour. Phase 1 (N = 95) assessed self-reported willingness to try cultivated meat using a questionnaire. In Phase 2, a tasting session was held with a subset of participants (n=57). Each participant was offered six conventional chicken nuggets presented as cultivated meat, and their consumption was recorded. Following the tasting, participants reported their perceptions of peer engagement during the session. Phase 3 involved three focus group discussions, each with eight participants, to explore motivations, social influences, and reflections on the tasting experience. Preliminary analyses of Phases 1 and 2 focused on intentions and behavioural uptake. Bivariate analyses showed that food neophobia, disgust sensitivity, and perceived unnaturalness were negatively associated with willingness to try cultivated meat. Binary logistic regression indicated that willingness to try in Phase 1 was a strong predictor of tasting behaviour in Phase 2, with each one-unit increase in willingness associated with approximately 70% higher odds of consumption (OR ≈ 1.7). Exploratory analyses suggest a modest association between perceived peer engagement and eating behaviour. Overall, the findings provide evidence that self-reported willingness to try cultivated meat is associated with observable eating behaviour when food choices are made within a social context.

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How to involve parents in school-based programs: perceptions of parents, schools, and health professionals

Gertrude G. Zeinstra, Lenneke M. van Bussel, Harriette M. Snoek*

**Wageningen Food and Bio-Based Research, P.O. Box 88, 6700 AB Wageningen, The Netherlands*
harriette.snoek@wur.nl

Keywords: Children, School, Parental involvement, Nutrition education

School-based nutrition education programs are more effective when they have a component of parental involvement. Parental involvement can be implemented in different ways and it is still unknown which approaches are most accepted, feasible and have higher reach and effectiveness. No studies have evaluated the effectiveness of parental involvement specifically. In this study, we explored the ways in which parents can be involved in school-based programs on healthy and sustainable food at Dutch elementary schools and how these were perceived by parents, schools, and professionals. To assess types of parental involvement, interviews with experts (n=6) and a literature search were conducted. 19 main approaches were identified that varied by place of implementation (home or school) and by the role of the parent: either an active role assisting or participating in activities or as receiver of information and inspiration. The perceptions of acceptance, feasibility, reach, and effectiveness of different types of involvement were assessed by focus group discussion parents (n=9), school staff (n=8) and youth (health) professionals (n=10) and a survey among 1000 parents (54% female). Parents, schools, and professionals reported higher acceptance of child-centred, interactive forms where parents are in control. Time, energy and costs were seen as main drivers and barriers of feasibility. Direct contact was mentioned to increase reach while culture and language were seen as main barriers. Perceptions of acceptance, feasibility and reach were not aligned in the survey scores. The findings suggest that a mix of complementary approaches for parental involvement will reach the best outcomes.

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‘When it comes to the Crunch’; How snack texture and processing method influence eating behaviour and calorie intake rate to design healthier snacks

Cian Sweeney*, John Hough, Ciarán G. Forde, David Clayton

** Diabetes Research Centre, University of Leicester, Leicester, LE54PW, United Kingdom*
Crs41@leicester.ac.uk

Keywords: Snacking, Eating-behaviour, Crisps, Texture

Snacks contribute substantially to discretionary calorie intakes, and overconsumption risk is exacerbated with rapidly consumed energy dense foods. A reformulation challenge is to identify snack products that remain equally liked, lower in energy density and slower to consume, extending the snack event on a calorie-for-calorie basis. This Consumer Lab funded study profiled the oral processing behaviours of 28 commercially available crisp-type snack products using a within-subject design. Participants (N=20) were video-recorded consuming a fixed portion, with oral processing behaviours extracted post-hoc using behavioural coding analysis. Linear mixed models assessed associations between bites, chews and average eating duration (s/unit) and processing technique, nutrient composition and sensory properties. Longer eating durations were associated with greater perceived dryness, hardness, chewiness, and crunchiness (all $p < 0.001$); combined, chewiness was the only independent predictor ($p = 0.001$). Higher oiliness and energy density were associated with shorter eating duration (both $p < 0.001$). However, flavour-intensity ($p = 0.066$), flavour-aftertaste ($p = 0.126$), and overall liking ($p = 0.817$) were not associated with eating duration. Processing method was associated with differences in eating rate: ‘popped’ products consumed at a slower rate (and lower energy density) than baked and fried (both $p < 0.05$), and triangular shapes consumed slower than cylindrical ($p = 0.031$) and shell-shaped ($p = 0.008$) products. Our results provide guidance that reformulation targeting ‘popping’ to reduce energy density, and shifting texture profiles to increase chewiness, hardness, dryness, and crunchiness, while utilising a triangular shape could slow snack consumption and rate of energy intake without reducing product liking.

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Coffee shop menu calorie labelling: effects on beliefs, knowledge and behaviour and the role of food choice motives

Khaleda Ahmadyar, Eric Robinson, Katy Tapper*

** Department of Psychology and Neuroscience, City St George's, University of London, Whiskin Street, London, EC1R 0JD, UK*
Katy.Tapper.1@citystgeorges.ac.uk

Keywords: Calorie labelling, Menu labelling, Motivation, Obesity

Calorie labelling is widely implemented as a public health strategy, yet its mechanisms of action are not well understood. Drawing on expectancy-value models, this study explored whether calorie labelling influences the calorie content of items selected from a hypothetical coffee shop menu via changes in outcome expectancies and whether effects are moderated by food choice motives. Adults (n = 577) were randomly assigned to view a menu with or without calorie information and asked to select their preferred item(s). Participants rated outcome expectancies (weight control, health, taste, value for money and fullness) for each item before and after viewing the menu and completed measures of weight control, health, price and sensory appeal motivation using the Food Choice Questionnaire (FCQ). Participants also estimated calories for each item. Labelling did not significantly reduce calories selected ($p = .18$), though means were in the predicted direction (labelling M = 371, SD = 261; no labelling M = 392, SD = 249). Labelling significantly increased changes in health, weight control and value for money expectations but these changes did not influence calories selected. Sensitivity analyses suggested moderation by weight control motivation whereby labelling reduced calories selected among highly motivated participants. Exploratory analyses showed that labelling also improved calorie estimation accuracy. Findings suggest that while calorie labelling may influence beliefs and knowledge, its impact on behaviour may be context dependent.

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Communicating carbon: the effects of learning a heuristic on willingness to consider dietary change

Katy Tapper*, Datin Shah, Christian Reynolds, Carsten Allefeld, Roger Highfield

** City St George's, University of London, School of Health and Medical Sciences, Northampton Square, London, EC1V 0HB, United Kingdom*
katy.tapper.1@citystgeorges.ac.uk

Keywords: Carbon emissions, Food, Dietary change, Gamify

Carbon labelling is increasingly used on food to promote lower carbon choices. However, research suggests labelling has small effects. One reason may be that comparing carbon emissions across multiple items is cognitively effortful. An alternative approach is to communicate a simple heuristic that can be easily applied across different contexts: that plant-based foods typically have lower emissions than white meat and dairy, which in turn typically have lower emissions than red meat. In this research, visitors to the Science Museum in London are invited to take part in a touchscreen game exploring the carbon impact of food. Across three rounds they are presented with food pairs and asked to select the ones with the lowest carbon emissions. Each round ends after 30 seconds or three errors and participants are given their score for that round. At the end of the first and second rounds participants also receive 'hints' explaining the heuristic. In a separate question participants are asked to select up to five dietary changes they would consider making (e.g., eat more plant-based meals, eat less red meat, try cultured meat) or to select 'None of these feels right for me'. The order of the game and diet question are randomised. We will look at whether playing the game (i.e. being taught the heuristic) increases the number of dietary changes people are willing to consider. We will also explore change in scores across the three rounds of the game as well as the types of dietary changes people select.

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Co-designing for effectiveness and success: stakeholder perspectives on two fruit and vegetable interventions in social housing communities

Nat Taylor*, Alexia Sawyer, Charlotte A. Hardman, Courtney Neal, Rachel Loopstra

** Department of Psychology, University of Liverpool, L69 7ZA, United Kingdom*
ntaylor9@liverpool.ac.uk

Keywords: Co-design, Food insecurity, Fruit and vegetable intervention, Social housing

People living in social housing often experience material disadvantages which disproportionately drive food insecurity and diet-related health conditions. The Supporting Communities in social Housing and Optimising Urban food System interventions for Equity (SCHOUSE) project aims to explore how social housing residents in Liverpool, UK, might be better supported to access healthy foods. To do this, we will implement a cluster randomised controlled trial of two community-based interventions (a mobile greengrocer and fruit and vegetable vouchers) which aim to enhance geographic and financial access to fresh fruit and vegetables within social housing communities. To understand drivers of healthy food access and opportunities for customising interventions to target drivers, we ran four co-design workshops with two groups: (i) organisations representing food, housing and public health (n=30 in total); and (ii) social housing residents (n=12 in total). We analysed workshop transcripts using thematic analysis to examine stakeholders' perceptions of proposed interventions and recommendations for enhancing effectiveness. Generally, resident stakeholders thought the interventions had potential to increase fruit and vegetable consumption, however, organisational stakeholders questioned their impact due to ingrained food habits and dominant structural barriers. Ideas for customising the mobile greengrocer to increase effectiveness included flexible opening times, targeted promotion, digital reminders, home delivery and provision of recipes. Organisational stakeholders considered wraparound support at voucher collection points crucial, while resident stakeholders recommended digital voucher delivery to minimise stigma. These data provide important insights on potential barriers to intervention reach, uptake and effectiveness. They will be used to inform intervention development for the SCHOUSE trial.

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Navigating the social world of (m)eating: Towards a theory and validation framework of egocentric social influence on animal-based food consumption in Dutch youth

Leonie M. Tuxhorn*, Nina van den Broek, Freek J.W. Oude Maatman

** Behavioural Science Institute, Radboud University; Postbus 9104, 6500 HE Nijmegen, the Netherlands*
leonie.tuxhorn@ru.nl

Keywords: Sustainable eating behaviour, Egocentric social influence, Young adults, Validation research

Reducing the consumption of animal-based foods (ABF) is a key factor in promoting planetary and public health. Existing research has recognised (a) the role of social influence in shaping ABF consumption, and (b) a heightened receptivity of young adults, who are often leaving their home environments for the first time to attend tertiary education, to health behaviour changes. However, the absence of a coherent theory and the use of loosely defined, inconsistently measured constructs have since been identified as limitations of conceptual clarity and construct validity. This study develops a mechanistic theory explaining how egocentric social environments (i.e., self-selected significant social ties) influence ABF consumption. Further, applying an argument-based approach to validity aligned with the APA Standards for Educational and Psychological Testing, the study constructs a validity argument to support its theoretical assumptions and the validity of the study's measurement techniques. This process specifies and evaluates the chain of inferences from observations to scores, scores to constructs, and constructs to real-world behaviour. In parallel, the study triangulates existing quantitative and qualitative data from the overarching research project and interdisciplinary theoretical evidence to refine how "social influence" and "ABF consumption" should be adequately conceptualised, measured, and interpreted in the subsequent longitudinal data collection by dr. Nina van den Broek. Scientifically, this study provides a theoretically grounded and methodologically rigorous foundation for further research by addressing theory-measurement mismatch, a persistent bottleneck in behavioural research that limits replication, cross-study comparability, and causal inference.

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Consumer-centric benefits of plain white dairy – a sorting task

Louise C. Snelders-den Uijl*, Stefanie Kremer

** Freisland Campina, Stationsplein 4, 3818 LE Amersfoort, The Netherlands*
louise.snelders@frieslandcampina.com

Keywords: Dairy perception, Processing level, Consumer insights, Qualitative research

Dairy products are widely recommended within national dietary guidelines, yet consumers differ in how they perceive the benefits of various dairy formats. These perceptions may stem from learned associations (e.g., high protein quark for sports performance) and sensory cues such as thickness, which can shape satiety expectations. Understanding consumer rationales behind perceived benefits is critical for aligning evidence based nutritional communication with consumer mental models. This study explored how different dairy formats (e.g., milk, yogurt, quark, skyr) are interpreted by consumers in terms of self perceived functional benefits, with specific attention to protein quality perceptions. Seven focus groups (n = 6 per group; mixed gender; adults including regular dairy users, sporters, and dieters; 2 hours per group) were conducted. Participants completed two sorting tasks: (1) sorting cards containing 13 written names of dairy formats and (2) sorting real dairy products. Sorting groups and sorting rationale were analyzed to understand consumers' benefit perceptions. Across all groups, level of processing emerged as a salient dimension structuring consumer judgments. Full fat dairy products were perceived as more natural, less processed, and therefore of higher product and protein quality. Conversely, skimmed variants were described as more processed and lower in intrinsic quality. Consumers' benefit perceptions of dairy are shaped primarily by level of processing, perceived naturalness, and inherent protein quality. These findings offer actionable insights for developing consumer centric communication strategies aligned with lay beliefs while remaining scientifically grounded.

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Identifying predictors of weight loss from a diverse set of biological, behavioural, and psychological factors

Birgit Malken, Kadri Arumäe, Ivan Kuznetsov, Priit Palta, Uku Vainik*

** University of Tartu, Näituse 2, 50409, Tartu, Estonia*
Uku.vainik@ut.ee

Keywords: Weight loss, Metabolites, Personality, Polygenic scores

The number of individuals who are overweight or obese has doubled since 1990 and shows no signs of decreasing or stabilization; the prevalence of severe obesity (6%) is even predicted to increase by 130% over the upcoming 20 years. We aimed to investigate which variables from a diverse set of factors predict weight loss. We predicted the percentage of weight lost, calculated as the person's minimum weight following their highest recorded weight, in an Estonian Biobank subsample (N = 59,482) of non-weight-stable people with BMI ≥ 25 kg/m2 at baseline (i.e., at their maximum weight), with at least one follow-up weight measurement available between six months and four years after baseline. We used 202 polygenic scores (PGS) calculated by using SbayesR based on summary statistics from Genome-wide association studies in the UK Biobank cohort, as well as 249 metabolites from Nightingale and 198 personality nuances from a 100NP personality questionnaire. Preliminary results show that a higher weight loss percentage is predicted by initial BMI, psychiatric traits, inflammatory biomarkers and dietary choices. Limitations of our study include non-standardized weight measurement protocols and the inclusion of only individuals of European ancestry. Weight change as a phenotype is currently still very much understudied. Our research contributes to the understanding of the genetic mechanisms of why people react differently to treatments of obesity. We will use this as an insight for developing a weight loss questionnaire and work on studying genetic causality, which will serve as a roadmap for designing behavioral interventions.

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Expert requirements on picky eating interventions

Sterre van Arum*, Dirk Heylen, Juliet A.M. Haarman

** Citadel, room H215 (secretariat), PO Box 217, 7500 AE Enschede, The Netherlands*
s.r.vanarum@utwente.nl

Keywords: Picky eating, Children, Behavioral nutrition, Co-design

Picky eating is a serious issue. Children and guardians can experience an intense battlefield at the dining table. Specifically, certain food refusal, willingness to eat, parental behaviour and control cause issues during the shared mealtime. Numerous interventions have been developed for this issue. However, few concepts integrate the perspectives of children, parents, and experts during development. We wanted to understand the user experience needs and wants from all these stakeholders. Even though the parent's perspective is widely available through literature, little is known about the user experience elements these three user groups prefer. This research creates guidelines on the user experience level based on interviews and child-appropriate methods. Eventually, we interviewed 8 nutritional experts. They had different relationships with picky eaters and their parents, from seeing them on a day-to-day basis as consultations, to performing research on them. The interviews were annotated, or extensive notes were taken. The interviews are being analyzed through thematic analysis, with the six steps method of Braun and Clarke. Preliminary results indicate need for a preventive intervention, guidance for parental behaviour, and bringing positive feelings back to the table. Several experts stated that making use of a steps-wise method (like the SOS approach), continuously exposing children to unwanted food, and giving appropriate rewards is a must for changing the behaviour of picky eaters. The experts gave indications of what such an intervention should adhere to from their viewpoint. The next steps involve interviewing parents to inform the user experience direction and understanding the needs and issues of picky eaters. This research forges guidelines for the wants and needs of picky eating interventions on an interactive user experience level, specifically asking for more guidance for parents on this issue.

Appetite publication preference: This abstract will not be published in Appetite.

Nutritional behaviour experts spill the beans on picky eaters: identifying wants and needs for family-centred solution

Sterre van Arum*, Dirk Heylen, Juliet A.M. Haarman

** University of Twente, Department EEMCS, Research group Human Media Interaction (HMI), Citadel, room H215 (secretariat), PO Box 217, 7500 AE, Enschede, The Netherlands*
s.r.vanarum@utwente.nl

Keywords: Picky eating, Children, Behavioral nutrition, Co-design

Picky eating is a serious issue. Children and guardians can experience an intense battlefield at the dining table. Specifically, certain food refusal, willingness to eat, parental behaviour and control cause issues during the shared mealtime. Numerous interventions have been developed for this issue. However, few concepts integrate the perspectives of children, parents, and experts during development. We wanted to understand the user experience needs and wants from all these stakeholders. Even though the parent's perspective is widely available through literature, little is known about the user experience elements these three user groups prefer. This research creates guidelines on the user experience level based on interviews and child-appropriate methods. Eventually, we interviewed 8 nutritional experts. They had different relationships with picky eaters and their parents, from seeing them on a day-to-day basis as consultations, to performing research on them. The interviews were annotated, or extensive notes were taken. The interviews are being analyzed through thematic analysis, with the six steps method of Braun and Clarke. Preliminary results indicate need for a preventive intervention, guidance for parental behaviour, and bringing positive feelings back to the table. Several experts stated that making use of a steps-wise method (like the SOS approach), continuously exposing children to unwanted food, and giving appropriate rewards is a must for changing the behaviour of picky eaters. The experts gave indications of what such an intervention should adhere to from their viewpoint. The next steps involve interviewing parents to inform the user experience direction and understanding the needs and issues of picky eaters. This research forges guidelines for the wants and needs of picky eating interventions on an interactive user experience level, specifically asking for more guidance for parents on this issue.

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Do texture-based reductions in eating rate work for everyone?

Marieke van Bruinessen*, Lise AJ Heuven, Zhen Liu, Markus Stieger, Kees de Graaf, Marlou P. Lasschuijt, Ciarán G. Forde

** Wageningen University & Research, P.O. Box 17 6700AA, Wageningen, the Netherlands*
marieke.vanbruinessen@wur.nl

Keywords: Eating rate, Food Texture, Energy intake

Eating a faster rate is known to increase meal size and although eating rate (ER, g/min) varies widely between people, it has been shown to be consistent at the individual level. Meal textures can slow ER and have consistently been shown to reduce energy intake at the group level, but is this approach effective for everyone, or less effective for those with faster ER's? In a secondary analysis of a block-randomized crossover feeding trial, (www.restructureproject.org) participants (n=41, M=21, BMI 23 ± 2 and age 27 ± 5) completed two 14-day diet interventions, where one diet comprised meals with texture properties that promote faster ER's, and following a 14-day washout period, a second diet with textures that promote slower ER's (Fast diet vs. Slow diet). Both diets were matched for palatability, portion and energy served, non-beverage energy density and meal-variety and volume, such that the only difference was the rate at which they were consumed. Individual ER's were categorized (faster n=21 or slower, n=20), based on behavioral annotation of their eating behaviour for a fixed test-meal. During each diet period, ER and energy intake for each meal (n=3,444) were compared for fast and slow-eater groups. Eating rate was consistent within individuals for each group across both diets (ICC's ~0.75–1.00), such that faster-eaters consumed both intervention diets at a faster rate than slower-eaters. When comparing the efficacy of the meal texture intervention, faster-eaters (Δ30g/min, 95%CI:-37,-22) experienced a greater reduction in ER compared to slower-eaters (Δ18g/min, (95%CI: 11, 26) (Diet*Group: $F(1,811)=32.3$, $p<0.0001$). The resultant decreases in reductions in daily energy intake were equivalent (average ↓14% kcals/day) (diet*group: $F(1,1032)=3.38$, $p=0.066$). These findings confirm the consistency of ER at the individual level and highlight that meal texture-based reductions in ER support reduced energy intakes despite individual differences in ER.

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A slower natural eating rate for a fixed-caloric load is associated with greater postprandial satiety and enhanced satiety hormone responses in humans

Zhen Liu, Marieke Van Bruinessen*, Josep Rubert, Markus Stieger, Marlou Lasschuijt, Ciarán G. Forde

** Wageningen University & Research, P.O. Box 17 6700AA, Wageningen, the Netherlands*
marieke.vanbruinessen@wur.nl

Keywords: Individual eating rate, Postprandial subjective satiety, GLP-1, PYY

Accumulating evidence shows meal eating rate (ER) can influence meal intake and satiety. The current study examined associations between natural variations in inter-individual ER for a fixed-calorie meal and postprandial subjective satiety and appetite-related hormone responses in healthy adults. Participants (n=41) consumed a fixed-calorie meal (202 g rice-based porridge) while video-recorded to assess ER and oral processing behaviours. Subjective satiety ratings were collected before and after meal consumption over a 3-hour postprandial period while gut appetite hormones (GLP-1, PYY, PP, and Ghrelin) were assessed in a sub-group (n=33) of participants. ER was first analysed as a continuous variable and subsequently used to stratify participants into Slower-eater (30.5±0.3g/min) and Faster-eater groups (61.9±1.3g/min) to assess between-group differences in postprandial satiety responses. ER significantly affected participants' satiety ratings, with Slower-eaters consistently reporting lower hunger (Δ8-15mm), desire to eat (Δ12-20mm), and prospective consumption (Δ10-17mm) than Faster-eaters. Compared with Faster-eaters, Slower-eaters showed significantly higher early postprandial GLP-1 responses, with mean differences of 2.74 and 6.44 pmol/L 10-15mins postprandial, and 65% greater GLP-1 incremental area under the curve (iAUC-30min) (p=0.05). Slower-eaters had a significantly higher PYY iAUC-30min (77%, p=0.006) compared to Faster-eaters and a non-significant trend towards higher PP levels at 10-15-mins and lower ghrelin levels at 180min. Our findings suggest that slower eating can augment postprandial satiety and gut hormone response to a fixed-calorie load and may contribute to sustained calorie reductions observed when meal oral processing is prolonged.

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Meal texture and eating rate as drivers of energy intake in ultra-processed food diets

Marieke van Bruinessen*, Lise Heuven, Zhen Liu, Markus Stieger, Kees de Graaf, Marlou Lasschuijt, Ciarán G. Forde

** Wageningen University & Research, P.O. Box 17 6700AA, Wageningen, the Netherlands*
marieke.vanbruinessen@wur.nl

Keywords: Eating rate, Energy intake, Ultra-processed foods

Nutrient composition, specific industrial processes, and sensory characteristics of ultra-processed foods (UPFs) have been proposed to drive caloric overconsumption, but the underlying mechanisms remain unclear. Dietary-intervention studies confirm observational associations between UPF intake and higher energy intake, overweight, and obesity. However, these studies reported ~50% higher energy intake rates (kcal/min, EIR) for meals on the UFP diet compared to those on the minimally processed control diet. Numerous acute feeding trials have demonstrated that food textures promoting a slower eating rate (g/min, ER) are consumed in smaller portions with lower energy intakes compared to iso-caloric meals promoting faster ER. We conducted a block-randomized, controlled crossover dietary trial to examine whether energy intake from 14-day UPF diets can be modified through the selection of commercially-available foods differing in texture-derived ER (g/min). Meals within the UPF Slow-ER and UPF Fast-ER arm were served ad libitum and matched for non-beverage energy density, portion size and total energy served, meal variety, and palatability. Forty-one participants (n=21 male, 27±5y; BMI:23.4±1.9) completed the 7-week trial. Daily energy intake was 369 kcal/day (95%CI: 221,517) lower on the Slow-ER compared to the Fast-ER diet ($F(1,1051)=23.98$, $p<0.001$). The effect of ER on energy intake was sustained across days on the diet (diet–time: $F(13,1051)=0.96$, $p=0.486$) and not attributed to differences in meal-liking (p>0.05). Textural properties consistently changed ER across all participants and >90% adjusted their intake accordingly. These findings highlight the importance of food texture in guiding ER and the central role of sensory cues in moderating meal size of UPFs.

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When food feels unacceptable: a longitudinal study of tactile sensitivity, tactile appreciation, and food rejections in preschool-aged children

Anouk J. P. van den Brand*, Anouk E. M. Hendriks-Hartensveld, Ilse van Lier, Britt Fleischeuer, Rosalie Mourmans, Remco C. Havermans, Chantal Nederkoorn

** Maastricht University, Faculty of Psychology and Neuroscience, P.O. Box 616, 6200 MD Maastricht, The Netherlands*
a.vandenbrand@maastrichtuniversity.nl

Keywords: Food rejection, Tactile sensitivity, Tactile appreciation

Food rejections in early childhood pose a challenge for healthy food intake. Previous research indicates that food rejections are associated with tactile processing, but longitudinal evidence for this relationship remains limited. Building on these findings, the present study examined the relationship between tactile sensitivity, tactile appreciation, and food rejections using a longitudinal design. A total of 299 children and 310 parents participated in the study when children were three, four, and five years old. Children completed a vegetable taste test and an Affective Appreciation of Textures (AAT) task, in which they felt different objects with their hands and rated the pleasantness of the textures. Parents completed the Child Food Rejection Scale (CFRS), fruit and vegetable liking list (FV liking), and subscale Touch of the Sensory Profile (SP-t). Cross-sectional results showed that food rejection on the taste test was associated with greater dislike of textures at age three. CFRS scores were related to greater tactile sensitivity on the SP-t at all ages. FV liking was related to less tactile sensitivity on the SP-t at ages three and four. No significant predictive relationships were observed between tactile sensitivity, tactile appreciation, and food rejection across waves. Together, results showed that tactile processing is linked to food rejections at a given age, but does not predict changes in rejection over yearly intervals. Future studies may explore shorter time-lags to capture potential short-term relationships between tactile processing and food rejection.

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Smell and taste function after completion of childhood cancer treatment

Romy van Duuren, Remco Havermans, Aniek de Koning, Martha Grootenhuis, Marta Fiocco, Wim Tissing, Mirjam van den Brink*

** Princess Maxima Center, Heidelberglaan 25, 3584 CS Utrecht, Netherlands*
m.vandenbrink-9@prinsesmaximacentrum.nl

Keywords: Smell, Taste, Pediatric oncology

Smell and taste changes are bothersome treatment symptoms during childhood cancer treatment, consequently affecting food intake and quality of life. Children frequently ask whether the senses recover after treatment, but this remains unclear. This follow-up of a prospective cohort study included 66 children treated for hematological, solid, or brain malignancies. Data on smell (odour threshold and identification; Sniffin' Sticks), taste (Taste Strips), dietary intake (3-day food diary), and HRQoL (total, physical, psychosocial; PedsQL 4.0) were collected between two and five years post-treatment (T4) and compared with previous data collected within three months after completion of treatment (other diagnoses)/during maintenance phase (acute lymphoblastic leukemia, ALL) (T3). Odor identification scores were significantly higher at T4 (median 11.0, IQR 10.0 – 12.0) compared to T3 (median 10.0, IQR 9.0 – 11.0), except for children with ALL. According to odor threshold cut-off values, children with ALL were more often considered hyposmic whereas hyperosmia increased in children with other diagnoses at T4. Only 47.8% of children with ALL showed normal taste perception, showing a shift toward both hypo – and hypergeusia. Self-reported sensory changes declined in the years following treatment, with smell changes ranging between 8.7 – 14.0% and taste changes between 27.9 – 43.5%. Taste function was positively correlated with total and psychosocial HRQoL, whereas odour identification was negatively correlated with dietary intake. Although objective measures generally normalize, a substantial proportion of children still exhibit hypo or hypersensitivity at the individual level. Self-reports indicate recovery of the senses; however, many children continue to experience taste changes post-treatment.

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Qualitative validation of the Food Neophobia Scale in older adults

Emmy van den Heuvel*, Linsay Ketelings, Remco C. Havermans

** Laboratory of Behavioural Gastronomy, Maastricht University, 5911 BV Venlo, The Netherlands*
emmy.vandenheuvel@maastrichtuniversity.nl

Keywords: Food neophobia scale, Qualitative validation, Older adults

Food neophobia refers to a greater reluctance to eat novel foods, and tends to be higher among older adults than younger adults. Food neophobia is usually measured using the Food Neophobia Scale (FNS). The FNS has a good quantitative validity and reliability, but there are potential limitations regarding the interpretation of the scale items. Therefore, we wanted to explore how the different statements and answer options of the FNS are interpreted. During semi-structured interviews, we encouraged participants to think aloud and used verbal probing. Fourteen older adults took part, seven males and seven females, with mean age of 73 (+ 5) years old. The results showed that various terms in the scale statements were interpreted in different ways. E.g. terms such as 'trust' ("I don't trust new foods"), or 'particular' ("I am very particular about the foods I will eat") were often described in relation to health, calorie content, animal welfare, perishability or food hygiene. The interpretation often included factors that influence eating behaviour regardless of whether the foods are novel or not. Moreover, dietary restrictions influenced the responses to FNS items. For statements such as "I will eat almost anything" responses can appear neophobic, while it is not a reluctance to novel foods, but the reluctance to potentially violate dietary restrictions that influences the response. These findings demonstrate the importance of exploring the qualitative validity of psychometric scales and standardized questionnaires. While the quantitative validations demonstrate that FNS scores predict eating behaviour in large groups, the interpretation of FNS scores in smaller sample sizes should be interpreted carefully.

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Effect of the Dutch school-based culinary class 'Kok in de Klas' on behavioral determinants of Dutch children's cooking competences: a quasi-experimental study

Zoë van der Heijden*, Gertrude Zeinstra, Sanne Peeters, Guido Camps

** Wageningen University & Research, Stippeneng 4, 6708WE Wageningen;*
zoe.vanderheijden@wur.nl

Keywords: Children, Nutriton education, Primary school

Diet quality among children remains suboptimal, with many not meeting dietary guidelines. Strengthening cooking skills through experiential approaches such as hands-on cooking classes is a promising strategy to improve dietary behaviors; however, their stand-alone impact remains understudied. This quasi-experimental study evaluated a 1.5-hour school-based cooking class led by a chef (Kok in de Klas [KidK]; English: Chef in the Classroom) on cooking-related behavioral determinants among Dutch schoolchildren aged 9-12 years, compared with a no-class control group. Questionnaire data were collected at baseline (T0), one-day post-intervention (T1), and one-week post-intervention (T2) in intervention (n = 184) and control group (n = 75). Measures included self-perceived cooking skills, norms, attitude, intention, confidence, and cooking-related behavior. To assess recipe learning, intervention children completed recall tasks at T1 and T2 using Free Listing (n = 150) or, in a subsample, Free Drawing (n = 19). Linear mixed models showed a significant group-by-time interaction for perceived capability to help with cooking, favoring intervention group at T1 (β = 0.303, p = .006) and T2 (β = 0.375, p < .001), with no effects for other determinants or behavior (p > .05). Intervention children correctly recalled a mean of 10.9 (SD 2.3) of 19 ingredients at T1 and 9.9 (SD 4.19) at T2, with no differences between recall modalities (p = .36; p = .11). Children rated the class 7.7/10 (SD 1.8). Overall, preliminary findings suggest KidK may strengthen perceived cooking capability and children demonstrated recall of several recipe ingredients.

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Preferred Umami Taste Intensity and Food intake During an Ad Libitum Lunch Meal

Merel van der Kruijssen*, Monica Mars, Ciarán G. Forde

** Sensory Science and Eating Behaviour, Division of Human Nutrition, Wageningen University, PO Box 17, 6700 AA Wageningen, The Netherlands*
Merel.vanderkruijssen@wur.nl

Keywords: Umami intensity, Umami preference, Satiation, Ad libitum intake

Taste intensity influences liking and food choice and intake. Food intake tends to be higher at optimally liked taste intensity. What is less clear is the impact of sub-optimal (too weak/too strong) umami taste intensity on ad libitum food intake. We assessed food intake of a test meal at three personalized umami taste intensity levels: the ideal condition, and two suboptimal conditions; lower- and higher than ideal. Forty-seven participants (25.0 ± 4.5 y; 77% female; BMI 22.3 ± 1.7 kg/m^2) consumed three risotto meals ad libitum (Low, Ideal, High umami) in a within-subject crossover design. Umami intensity was manipulated using monosodium glutamate (MSG) and individual ideal (most preferred) taste intensity was determined prior to the lunch meals in a separate session using a two-alternative forced-choice staircase procedure (2-AFC). For each participant, lower and higher than ideal umami intensities were personalized relative to their optimal level and were of comparable palatability to each other. During lunch sessions, participants successfully ranked Low, Ideal, and High umami intensities; however liking ratings did not replicate the 2 AFC results and did not predict food intake ($p = 0.94$), with weak associations across umami intensity conditions (all $r < 0.3$; all p > 0.05). Food intake was similar across all umami intensity conditions: Ideal (520 ± 342 g), Low (539 ± 354 g), and High (508 ± 226 g; $p = 0.75$). In conclusion, food intake did not differ between the three personalized umami taste intensity levels (lower-than-ideal, ideal, and higher-than-ideal) in a test-meal suggesting a limited role for taste intensity on acute food intake.

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Development and Validation of the Dutch TasteFFQ, a tool to capture dietary taste exposure

Merel van der Kruijssen*, Eva Cad, Hanne de Jong, Katherine Appleton, Kees de Graaf, Monica Mars

** Sensory Science and Eating Behaviour, Division of Human Nutrition, Wageningen University, Stippeneng 4, 6708 WE Wageningen, The Netherlands*
merel.vanderkruijssen@wur.nl

Keywords: Taste exposure, Dietary patterns, Food intake, Validation

Taste strongly influences food choice, yet dietary habits are typically assessed through nutrient intake. Assessment tools rarely quantify habitual taste exposure based on a systematic methodology. The present study describes the development and evaluates the validity of the Dutch TasteFFQ. The questionnaire was developed based on the Dutch taste database and National Food Consumption Survey. It covers 166 food items from five clusters of similar tasting foods ('fat' (n=12), 'neutral' (n=40), 'salt, umami & fat' (n=54), 'bitter' (n=10) and 'sweet' (n=50)). For the validation, Baseline taste FFQ, 24h recall and urine biomarker data from the SWEET TOOTH trial (https://clinicaltrials.gov/study/NCT04497974) were used. In total, 178 healthy Dutch adults (31% male; age 35±15y; BMI 23±3 kg/m^2) had complete data. Taste Exposure (TE) was calculated as proportion of food intake from five taste clusters. TE for 'sweet' was positively correlated with 24h recall mono- and disaccharide intake (r=0.17, p=0.027) and sugar equivalent excretion (r=0.32, p<0.001). TE for 'fat' correlated with 24hr recall fat intake (r=0.22, p=0.004) and 'neutral' with fibre (r=0.23, p=0.002). TE for 'salt, umami & fat' was negatively correlated with total carbohydrate (r=−0.23, p=0.002), TE 'salt, umami & fat' was negatively correlated with protein (r=−0.16, p=0.029). None of the taste cluster intakes were significantly correlated with sodium excretion (p>0.05). Overall, we successfully developed a tool that captures dietary taste exposure and shows correlations with independently measured nutrient-based markers of taste-related intake, though further refinement may improve accuracy across all taste clusters.

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Predicting healthy and unhealthy eating behaviours based on the DEBQ and ecological momentary assessment

Eva Vanbrabant*, Jikke Hesen, Suzan Jordan, Codrin Mironiuc, Lotte HJM Lemmens, Yuliya Shapovalova, Gijs H. Goossens, Anne Roefs

** Universiteitssingel 40, 6229 ER Maastricht, The Netherlands*
eva.vanbrabant@maastrichtuniversity.nl

Keywords: Emotional eating, Eating behaviour, Overweight, Obesity

Emotional eating is a personality trait assessed by a retrospective questionnaire that reflects the tendency to consume high calorie food when experiencing negative emotions. However, several studies have shown that scores on trait emotional eating (EE) questionnaires are not reliably and specifically related to eating behaviour in response to induced negative mood states1. The current study aims to characterize individuals varying in body weight (BMI>18,5kg/m2) to establish causal and maintenance factors of overweight and obesity. This sub-study used the EE subscale of the Dutch Eating Behaviour Questionnaire2 (DEBQ) in addition to a 3-week ecological momentary assessment protocol that included items on food consumption and varying mood states. Previous analyses on a subset (n = 112) showed that EE was associated with an unhealthy food choice when positive emotions were present, and that the EE score was not significantly associated with unhealthy versus healthy food choices, which may have been due to insufficient power. In the current analysis (n = 596), we test the hypotheses that (1) higher scores on EE will be associated with more negative emotions (frequency and intensity) in daily life, and (2) negative and positive emotions are associated with more unhealthy food choices, specifically when scoring high on EE. It will be explored whether these effects are moderated by BMI category. With this analysis we aim to assess the short-term effect of mood state on eating behaviour.

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On the Nature of Certainty in Value-Based Evaluations: Disentangling Variability- and Extremity of Experiences

Tiemen S. Tan, Sanne Raghoebar, Chao Zhang, Julian Quandt, Harm Veling*

** Consumption and Healthy Lifestyles (CHL), Wageningen University & Research, P.O. Box 8130, 6700 EW, Wageningen, the Netherlands*
harm.veling@wur.nl

Keywords: Value-based choice, Food evaluation, Experiences

Consistent value-based decision-making is crucial for adopting a healthy diet. Certainty in evaluations (e.g., certainty in how much we like a food) is related to consistency of value-based decisions, but its nature is poorly understood. Here we examined how evaluation certainty is formed through the possibly unique contributions of "variability"- and "value-extremity" of prior experiences. First, we established that people are more certain about their evaluations of food when their evaluations are more extreme. However, it is unclear whether this relation is caused by extremity per se, or whether these foods are associated with more consistent experiences (e.g., a much liked food is perhaps always very tasty). Therefore, we conducted a preregistered 2×2 within-subjects experiment (N = 188) where variability- and value-extremity of experiences with objects were manipulated independently. Participants learned value-distributions for objects, estimated their value, and rated certainty in their evaluation. As predicted, results show that variability of experiences is negatively related to evaluation certainty, independent of value-extremity. Surprisingly, we find no evidence for a positive effect of value-extremity on evaluation certainty. These results point to the possibility that the previously observed relation between value-extremity and evaluation certainty is the result of an ecological confound between variability and value-extremity of prior experiences.

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Towards more plant-based food choices in 12–15-year-old adolescents in The Netherlands: motivation, and perceived ability and opportunity before and after a school intervention

Muriel C.D. Verain*, Harriette M. Snoek, Florine Kremer

** Wageningen University & Research, Wageningen Social & Economic Research, P.O. Box 88, 6700 AB Wageningen, The Netherlands*
muriel.verain@wur.nl

Keywords: Adolescents, Plant-based foods, School intervention, COM-B model

A shift towards more plant-based diets is expected to benefit human health and reduce the environmental impact of our diet. The Dutch government set the ambition to shift protein intake towards a minimum of 50% plant-based proteins in 2030. This study focused on adolescents, with a current intake of 44% plant proteins (RIVM, 2024). The aim of this study was to evaluate an 8-week school-based intervention aiming to stimulate a more varied and plant-based diet. The intervention was conducted in 2nd and 3rd grade of three secondary schools in the Netherlands (~ 13 and 15 years old). Educational lessons were combined with activities-based learning. Students completed a questionnaire before (n=190) and after (n=163) the intervention, to assess changes in their capability (knowledge and skills), motivation and (perceived) opportunity to choose plant-based options (COM-B model). At baseline, students showed positive attitudes towards consuming meat and a low intention to reduce their meat consumption, but they also positively evaluated the taste of meatless dishes. Adolescents' food choices were mainly driven by taste, price and availability of products at home, with little involvement in health and sustainability. Availability of plant-based options in the school canteen seemed not to form a barrier. After the intervention, subjective knowledge showed an increase, and the other COM-B scores remained unchanged. Motivation appeared difficult to measure, since the included questions triggered provoking answers. In conclusion, the school intervention was effective in increasing knowledge. Future research is needed to gain a better understanding of changes in motivation. Tailoring the intervention more closely to the mindset of adolescents, addressing low engagement with healthy and sustainable food, and taking potential resistance and peer influence into account are important lessons learned for the further refinement of the school intervention.

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Usability study of myfood24 in Mexican children and adolescents

Milca E. Vidal*, Janet E. Cade, Camilla Nykjaer

** School of Food Science and Nutrition, University of Leeds, Leeds LS2 9JT, UK*
fsmevs@leeds.ac.uk

Keywords: Online dietary assessment tool, Usability, Children, Adolescents

Online dietary assessment tools (DAT) have shown promise among adolescents in educational settings; however, their feasibility and acceptability in Mexican context remain unexplored. Prior to large-scale implementation in research, it is essential to determine whether children/adolescents can independently navigate and complete digital dietary recalls in real-world environments. This study evaluated the usability of myfood24 Mexico online DAT among children and adolescents. A cross-sectional study was conducted in May-June 2025 in four public primary and secondary schools in northern Mexico. Usability was measured using the System Usability Scale (SUS). Linear mixed-effect models accounting for clustering by school were fitted to examine factors associated with SUS score. Participants were aged 5-16 years. The sample comprised 714 students (51% girls) who completed a full day of intake with myfood24 dietary recall and an online survey. The mean age was 11 (SD±2) years; 56% were <12 years and 44% were adolescents. Adolescents had higher mean (64±15) SUS scores than younger children (62±15). Increasing age was positively associated with higher SUS scores (β=0.75 per year, 95% CI:0.06–1.43) and that higher socioeconomic level was strongly associated with greater usability scores compared to the extremely low category (high: β=20.1, 95%CI:5.1–35; middle: β=17.2, 95%CI:2.2–32.1; upper-middle:β=17.4, 95%CI:2.5–32.3), while lower-middle level showed a similar but non-significant trend. Sex and access to digital devices were not associated with usability after adjustment. These findings suggest that digital DATs such as myfood24 may be acceptable for use among school-aged populations, particularly among older students and those from higher socioeconomic backgrounds. Overall, SUS scores reflected an OK usability performance, although there remain opportunities for further improvement. The results support the feasibility of implementing digital DATs in Mexican schools, while highlighting the need for inclusive, supporting adaptable strategies to enhance usability in younger and socioeconomically disadvantaged populations.

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Energy and nutrient intake in children and adolescents of northern Mexico

Milca E. Vidal*, Janet E. Cade, Camilla Nykjaer

** School of Food Science and Nutrition, University of Leeds, Leeds LS2 9JT, UK*
fsmevs@leeds.ac.uk

Keywords: Dietary assessment, Children, Adolescents, Mexico

Childhood and adolescent nutrition in Mexico remains suboptimal, with national surveys reporting high prevalence of micronutrient deficiencies and excess energy intake that contribute to rising obesity rates. Digital self-report tools such as myfood24 have shown promise for improving dietary data quality and participant burden in high-income settings, yet their applicability in low-resource Mexican schools is understudied. This study aims to evaluate the usability of the myfood24 online dietary assessment application and to describe energy, macronutrient, and micronutrient intakes among 714 Mexican children and adolescents (ages 5-15 yr) attending four northern-Mexico schools. Participants completed a 24-h recall using the myfood24 app under supervised conditions. Descriptive statistics were calculated for total energy, macronutrients, selected micronutrients, and percent energy from carbohydrate, fat, and protein. Analyses were stratified by age group (children n=403; adolescents n=311) and compared with national (ENSANUT) and international (WHO) dietary recommendations. Overall, mean daily energy intake was 1,410 kcal (SD = 762; median = 1,223 kcal). Carbohydrate, fat and protein contributed on average 46.3 %, 39.0 % and 15.4 % of energy, respectively. Mean intakes of calcium (517 mg), iron (10.2 mg), vitamin A (390 µg RE), vitamin C (48 mg) displayed large dispersion (SDs > 30 % of means). Sodium averaged 1,414 mg/day, exceeding recommended limits. Adolescents reported slightly higher energy and fat intakes than children, whereas calcium and iron intakes were marginally lower. These results showed marginally adequate iron but markedly low calcium and vitamin A, and excessive sodium intakes. The high fat contribution relative to recommended ≤30 % of energy further underscores diet quality concerns. The myfood24 platform was feasible for large-scale dietary assessment in northern-Mexico schools, revealing diets high in fat and sodium and low in several micronutrients, highlighting the need for targeted nutrition interventions.

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‘Trays and Tribulations’: Using automated weight-based meal tracking to measure eating behaviours and ad libitum meal intake

Florian Walter*, Simon B. Hengeveld, Marlou P. Lasschuijt, Ciarán G. Forde, Guido Camps

** Division of Human Nutrition and Health, Wageningen University & Research, Stippeneng 4, 6708WE Wageningen, Netherlands*
florian.walter@wur.nl

Keywords: Eating behaviour, Eating rate, Technology

In eating behaviour research, automated non-invasive measurement tools that track temporal changes of intake within a meal can facilitate data collection and improve data quality. We developed a tray-based device (‘MeetR’) to measure eating rate and bite size for application in unrestricted ad-libitum meals. The MeetR can covertly weigh multiple plates and cups simultaneously, does not interfere with normal eating and reduces the burden of labour-intensive manual annotation of videos. It consists of a dining tray placed on four embedded weight sensors that track changes in food weight over time during meal consumption. These weight changes are analysed using a rule-based algorithm to detect bite size and timing. In some cases, noise from participant interaction with the tray can mask bite activity within a meal completely, so we implemented a detection method to automatically reject such meals. To evaluate our approach, we recorded 2,270 ad-libitum meals as part of a controlled diet intervention (www.restructureproject.org), of which 17% were rejected due to excessive noise. From the remaining 1,878 recordings, 41 dinner meals (one per participant) were randomly selected to be manually annotated as ground truth. Our bite detection algorithm achieved a precision and recall of 0.87 and 0.61, respectively, for an F1-score of 0.72. Additionally, comparing the sum of detected bite weights with pre-post measurements across all 1,878 meals revealed a median weight error of 15%. These results highlight the potential for accurately and non-invasively measuring meal intake in real-world feeding studies.

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Assessment of dietary chemical exposure in European adults across three dietary scenarios: integrating food safety with nutrition and sustainability

Wenxiao Jiang, Yimin Zhang, Zhengcong Wang, Neha Khandpur, Xinxin Wang*

* *Wageningen Food Safety Research, Akkermaalsbos 2, 6721 WB Wageningen, The Netherlands; xinxin2.wang@wur.nl*

Keywords: Food safety, Hazard exposure, Diet

Dietary patterns such as the EAT-Lancet Reference Diet (ELRD) and the Mediterranean Diet (MD) are widely promoted for their nutritional and environmental benefits, yet exposure to food safety hazards is not routinely included in dietary guidance. In Europe, chemical contaminants are recognised by the European Food Safety Authority (EFSA) as a major food safety concern, but evidence remains limited on how recommended diets alter chronic dietary exposure. This study evaluates chronic dietary exposure to eight chemical hazards: aflatoxin B1 (AFB1), deoxynivalenol (DON), cadmium (Cd), inorganic arsenic (iAs), lead (Pb), total mercury (Hg), ochratoxin A (OTA), and per- and polyfluoroalkyl substances (PFAS), in European adults across three dietary scenarios: the observed European diet (OED), the ELRD, and the MD. EFSA food consumption data were combined with EFSA food safety hazard occurrence data to estimate daily intakes, and health risks were characterised using the hazard quotient (HQ) approach relative to EFSA health-based guidance values or reference points for potential health concern. AFB1 showed the highest median HQ and most frequent exceedance across all scenarios; HQ > 1 occurred in 19.7% of country–year pairs under the OED, increasing to 39.3% under the ELRD and 21.3% under the MD. Median HQs for Hg and Pb remained below 1 across scenarios. No HQ exceedances were observed for DON, Cd, iAs, OTA, or PFAS. Higher intake of grains and nuts under the ELRD and MD was associated with increased AFB1 exposure compared with the OED, indicating that diets optimised for nutrition and sustainability may entail unintended food safety trade-offs.

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Consumer preference for nettles ('Urtica Dioica'): a choice-based conjoint experiment with UK consumers

Eleanor Bryant, Tennessee Randall, Louise Neilson, Natalie Rouse, Alina Warren-Walker, Robert J. Nash, Amanda J. Lloyd, Laura L. Wilkinson*

** School of Psychology, Swansea University, Singleton Park, Swansea, SA2 8PP, UK*
L.L.Wilkinson@swansea.ac.uk

Keywords: Nettles, choice-based conjoint, consumer perception, edible plants

There is growing interest in exploring the potential of underutilised edible plants such as nettles (Urtica Dioica') owing to their nutritional and environmental benefits. Traditionally used for health and nutrition, nettles contain vitamins and minerals, protecting against cardiovascular disease, allergies and rhematic conditions. However, there is inadequate understanding of consumer preferences for products containing nettles. This pre-registered study aimed to explore the effect of varying levels of five attributes, namely product description, traditional use, nutrition, price and sustainability on consumer decisions for a nettle-based powder supplement amongst UK consumers. We hypothesised that price would have the highest relative importance scores overall. The final sample comprised 605 participants (Female = 49.4%; Age, M= 42.63 years, SD = 16.00) who completed an online choice-based conjoint (CBC) task. First, participants were presented with information about nettles and nettle powder (e.g., edible native plant, spray drying process used to develop the powder) alongside a photo of the powder. Second, participants were randomly assigned to an independent block of choice sets to explore preferences for the nettle-based powder supplement. Supporting our hypothesis, price was the most influential attribute (44.3%), followed by nutritional claim (30.8%) and product description (11.8%). Whereas sustainability (7.7%) and traditional uses (5.4%) were the least influential attributes of nettle-based supplements. The conjoint model fit was strong, with a McFadden's pseudo-R2. = 69.7%. UK consumers were generally unfamiliar with nettle consumption, and messaging around traditional use and sustainability lacked appeal in this study. Instead, consumers preferred general and likely familiar (or trending) nutritional claims.

Appetite publication preference: This abstract will not be published in Appetite.

Multi-component food items and intake: a bogus taste test study

Laura L. Wilkinson*, Alina Warren-Walker, Pamela Thompson, Rory Tucker, Tennessee Randall, Natalie Rouse, Louise Neilson, Michelle Lee, Milena Rundle, Sophie Vinoy, Amanda J. Lloyd, Suzanne Higgs

** School of Psychology, Swansea University, Singleton Park, Swansea, SA2 8PP, UK*
L.L.Wilkinson@swansea.ac.uk

Keywords: Multi-component food-items, food variety, food intake, Bogus taste-test

Multi-component food items (MCFI) are single food products with sensorially distinguishable components that are brought together via processing (e.g., chocolate chip cookies). We have previously developed isocaloric sweet and savoury test food sets (ice cream and crustless quiche) to enable comparisons between MCFI, single component (control with no components) and blended (control with components blended to no longer be sensorially distinguishable) versions of the same food. We conducted a between-subjects (N = 162; 64 male and 98 female) study to test the hypothesis that ad libitum intake of MCFI would be greater than intake of control food items. Participants were randomised to one of six conditions (MCFI, single component and blended for both quiche and ice cream). Within a bogus taste test procedure, participants were able to consume as much or as little as they wanted. A between subject ANCOVA showed no significant difference in the amount of food consumed between single component (M = 97.76g, SD = 59.08); blended (M = 109.55g, SD = 66.88); or MCFI (M = 113.13g, SD = 65.75) conditions (p = .752). Therefore, our hypothesis was not supported. The formulation of our MCFI test food meant that participants could taste all components within a single mouthful. One possibility is that we failed to capture a key property of MCFI as they exist in the food environment, that each spoonful may be different to the last. A future study may consider alternative methodologies to test different forms of MCFI and how they may be consumed.

Appetite publication preference: This abstract will not be published in Appetite.

How do current meat reducers in the action stage, those in the maintenance stage and former meat reducers differ from one another?

Sunghwan Yi*, Mimansa K. Suthar

** 50 Stone Road E., Guelph, Ontario N1G2W1, Canada*
syi@uoguelph.ca

Keywords: Meat reduction, Flexitarians, Stages of change, Maintenance

Despite recent advance of knowledge about stages of change in meat reduction, most empirical studies focused on the comparison between the(pre-)contemplation stage and the combined stages of action and maintenance. Given that many individuals who have begun to reduce meat consumption end up giving up the attempt to do so within a few months, it is important to fill the gap of research and compare current meat reducers in the action stage, those in the maintenance stage and the individuals who tried to reduce meat intake but have given up altogether (i.e., former meat reducers). Thus, the purpose of the study is to compare the three subgroups of meat reducers in their meat reduction goal setting, goal pursuit and how they deal with occasional lapses and feelings of demoralization. We conducted a cross-sectional online survey with Canadian university students who have recently tried to reduce meat consumption and are currently reducing meat intake (N=289). Our hypothesis that diet identity as unrestricted meat eaters would be lower among meat reducers in the maintenance stage than those in the action stage, in turn followed by former meat reducers (H1) was supported. Furthermore, the hypothesis that meat attachment would be lower for flexitarians in the maintenance stage than for those in the action stage, followed by former meat reducers (H4a) received partial support. Lastly, the hypothesis that meat ambivalence in the action stage would be higher for flexitarians in the action stage than those in the maintenance stage or former meat reducers (H4b) received partial support. Findings from the current study indicate interesting but nuanced differences among the three subgroups of meat reducers although some between-group differences were overshadowed by relatively large within-group variation. Our findings call for more systematic empirical research on subgroup differences among former and current met reducer subgroups.

Appetite publication preference: This abstract will be published in Appetite.

From diagnosis to network dynamics: omega-3 reconfigures sleep–behaviour coupling in children with neurodevelopmental traits

Hayley A. Young*, Anthony Brennan, Alecia Cousins, Amy Griffiths, Hazel De Maeijer, Alex J. Richardson

** Faculty of Medicine, Health and Life Science, Swansea University, Swansea SA2 8PP, United Kingdom*
h.a.young@swansea.ac.uk

Keywords: Omega-3, Sleep, Externalising behaviour, Symptom networks

Omega-3 fatty acids are widely used by families seeking alternatives or adjuncts to medication for ADHD- and autism-related difficulties. However, trial findings remain mixed because studies average across heterogeneous symptom profiles. Using a novel symptom-network framework, we tested whether omega-3 acts not only on mean symptom scores but by reconfiguring symptom topography in children with neurodevelopmental traits. In a 12-week randomised, double-blind, placebo-controlled trial, 161 children aged 5–12 years with elevated ASD and/or ADHD traits and sleep disturbance were allocated to high-dose omega-3 (945 mg/day) or a placebo. Parent-reported outcomes assessed sleep, emotional and behavioural dysregulation, ADHD symptoms, mood and social functioning. Analyses used linear mixed models and regularised symptom-network modelling of a prioritised 12-node "sleep–externalising" set, excluding near-duplicate items. Omega-3 produced greater improvements than placebo in emotional/behavioural dysregulation and in conduct problems and prosocial behaviour, with smaller changes in sleep and mood. Network analyses showed that global symptom connectivity decreased by 9% in the omega-3 group versus 1% with placebo. Bridges linking sleep problems to daytime externalising behaviour were halved under omega-3 but increased in placebo, and sleep-related nodes became less central. These findings suggest that omega-3 weakens a self-reinforcing link between sleep disturbance and behavioural escalation, shifting children from a rigid, "hot" sleep–externalising configuration towards a more flexible symptom pattern. For nutritional psychiatry and clinical practice, this network perspective helps explain how modest average effects can reflect clinically meaningful reductions in volatility for children and families. Trial Registration: [NCT06698588].

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Recognising and responding to infant appetite cues during feeding – implications of promoting parental sensitivity for parents with high alexithymia

Shihui Yu*, Alison Fildes, Pam Birtill, Tang Tang, Marion M. Hetherington

** School of Psychology, University of Leeds, UK, LS2 9JT; UK*
ps19s2y@leeds.ac.uk

Keywords: Infant appetite cues, Responsive feeding, Parental sensitivity, Alexithymia

Caregivers differ in their ability to recognise and respond to infant hunger, appetite, and satiety cues, which influences responsive feeding (RF). One systematic review and three online studies were conducted to investigate RF further, specifically parental attunement to their own interoceptive cues and its associations with their responses to infant appetitive cues. Study 1 systematically reviewed interventions designed to promote RF. While interventions improved parental self-reported RF, effects on child eating and weight outcomes were inconsistent. This suggests self-reported changes to RF behaviours did not necessarily impact child obesity risk. Study 2 examined adults' (N=198) recognition of infant appetitive cues online via mealtime videoclips. Recognition was generally high, but alexithymia scores were negatively correlated with accuracy. Study 3 investigated whether caregivers' (N=445) ability to "tune in" to their own appetite and affect was related to infant appetitive cue recognition. Caregivers who were more attuned to their own satiation cues were better at infant appetite recognition. Alexithymic caregivers showed lower recognition and fewer positive mealtime emotions. Parental attunement to their own internal satiation cues inversely mediated the link between alexithymia and infant appetite recognition. Study 4 involved one-to-one semi-structured, video-elicited interviews with 14 parents with high alexithymia scores. Participants reported mealtime stress, contextual influences, and challenges in feeding. Overall, individual differences in interoceptive cue recognition related to parental responsiveness to infant appetitive cues during feeding. Tailored support for caregivers with alexithymia may enhance sensitivity to their own and infants' cues, with the potential to foster more positive mealtime experiences.

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Easier to eat meal textures support faster eating rate and greater daily energy intake in older adults living in care homes

Dimitra Zannidi*, Miriam E. Clegg, Jayne V. Woodside, Gerry McKenna, Ciarán G. Forde, Lisa Methven

** Department of Food and Nutritional Sciences, University of Reading, RG6 6DZ, UK*
d.zannidi@pgr.reading.ac.uk

Keywords: Food texture, Energy intake, Eating rate, Care homes

Faster eating rate has been associated with greater food and energy intake in community dwelling older adults. With one-third of care home residents at high risk of undernutrition, foods that enable a faster eating pace could support greater energy intake. This care home intervention explored the total food and energy intake, of easier versus more difficult to eat textures at breakfast, lunch and supper meals on two separate days. All meal pairs were matched for portion size (g), energy (kcal) and macronutrients served. Consumption of drinks and optional snacks were measured throughout the day. Total food and energy intake from each day were calculated. Eating time (min) of each meal was recorded to calculate eating rate (ER) (g/min). Thirty-one participants were included, aged 85 (SD7) years, 77.5% females. Total energy intake was significantly higher on the easier compared to the more difficult to eat day and ER was significantly faster for all easier to eat meals. Mean self-reported appetite and meal liking did not differ between study days. Faster ER was significantly correlated with greater meal energy intake. In regression models, total energy intake was significantly associated with easier to eat textures (p=0.003), independent of age, sex, BMI, meal liking and other covariates. This study provides significant insights into eating rate and energy intake of different texture meals by care home dwelling older adults and suggests the need of faster to eat, palatable meals to increase energy intake in frail older populations.

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Motion cues against aesthetic bias: improving implicit responses to imperfect produce

Chenyi Zhu*, Gulbanu Kaptan, Joshua Weller

** Leeds University Business School, Maurice Keyworth Building, University of Leeds, Leeds, LS2 9JT, United Kingdom, bnczh@leeds.ac.uk*

Keywords: Imperfect fresh produce, Implicit attitudes, Implied motion, Food waste

Consumers often prefer visually perfect fruits and vegetables, while edible, fresh and nutritious imperfect produce is overlooked. This aesthetic bias contributes to food waste and undermines sustainable consumption. Because many food decisions are shaped by automatic and implicit attitudes rather than deliberative evaluation, this study investigated whether people spontaneously associate imperfect fresh produce with negative meanings and whether implied motion can mitigate these associations. In a pre-registered mixed factorial experiment, 128 participants completed an in-person two-dimensional Implicit Association Test (IAT). Participants were exposed to either static produce images or images featuring implied motion (e.g., fruit splashing into water). The between-subjects factor was image context (implied motion vs static). The within-subjects factor was IAT pairing (perfect produce + positive vs imperfect produce + positive), assessed across two evaluative dimensions (Good-Bad and Pleasant-Unpleasant). Results from the static condition confirmed a robust negative implicit bias: participants responded significantly faster to congruent "Ugly = Bad/Unpleasant" pairings than to incongruent ones. Crucially, implied motion significantly reduced the strength of this negative bias for imperfect produce, while implicit evaluations of perfect produce remained largely unchanged. In conclusion, these results suggest that negative reactions to cosmetic imperfection operate at an automatic level and can be shifted by a subtle visual cue. The study advances understanding of implicit attitudes in sustainable food choice and highlights implied motion as a low-cost and scalable design feature for online grocery imagery that may help increase acceptance of imperfect produce and reduce food waste. Moreover, this approach complements informational campaigns and education by targeting the early and intuitive stage of evaluation rather than conscious deliberation.

Appetite publication preference: This abstract will be published in Appetite.

Delegate list

First name	Last name	Organisation
Aycan	Adıgözel	Radboud University
Eva	Almiron-Roig	University of Navarra
Reyanne	Alshammari	University of Liverpool
Katherine	Appleton	Bournemouth University
Yaren	Aray	Istanbul Esenyurt University - Yeditepe University
Sterre	van Arum	University of Twente
Jordan	Beaumont	Sheffield Hallam University
Jackie	Blissett	Aston University
Annelies	Blok	Wageningen University & Research
Sanne	Boesveldt	Wageningen University & Research
Karin	Borgonjen-van den Berg	Wageningen University & Research
Jeanne	Bottin	Danone Research
Anouk	van den Brand	Maastricht University
Anthony	Brennan	Swansea university
Mirjam	van den Brink	Princess Maxima Center for pediatric oncology
Nina	van den Broek	Radboud University
Marieke	van Bruinessen	Wageningen University & Research
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Arianne	van Eck	Wageningen University & Research
Katie	Edwards	University of Birmingham
Madelief	Engels	Wageningen University & Research
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Alexandra	Finnan	University of Bristol
Britt	Fleischeuer	Maastricht University
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Ciarán	Forde	Wageningen University & Research
Suzanna	Forwood	Anglia Ruskin University
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Ai Ting	Goh	University of Otago
Kees	de Graaf	Wageningen University & Research
Darina-Eisal	Grjaznov	University of Tartu
Charlotte	Hardman	University of Liverpool
Kate	Harvey	University Of Reading
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Melian	Heinsaar	University of Tartu
Zoë	van der Heijden	Wageningen University & Research
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Jikke	Hesen	Maastricht University
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Emmy	van den Heuvel	Maastricht University Campus Venlo
Suzanne	Higgs	University of Birmingham
Yanyang	Huang	Wageningen University & Research
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Gerry	Jager	Wageningen University & Research
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Erin	Jones	University of Liverpool
Lieke	Joosten	Wageningen University & Research
Ena	Kawamoto	Zensho HoldingsCo., Ltd.
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Stefanie	Kremer	FrieslandCampina
Merel	van der Kruijssen	Wageningen University & Research
Laura	Kudlek	Heidelberg University

Kari	Kuulman	University of Tartu
Marlou	Lasschuijt	Wageningen University & Research
Edward	Latham	City St George's University of London
Claire	Leonard	Tate & Lyle
Jiachun	Li	Wageningen University & Research
Lik Xian	Lim	UC Davis, Innovation Institute for Food and Health
Lotte	de Lint	Wageningen University & Research
Desiree	Lucassen	Wageningen University & Research
Monica	Mars	Wageningen University and Research
Elena	Martinez	Instituto de Agroquimica y Tecnologia de Alimentos (IATA-CSIC)
Charlotte	McCracken	Liverpool John Moores University
Keri	McCrickerd	National University of Singapore
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Sjaan	Nederkoorn	Maastricht University
Louise	Neilson	Twisted Orange
Nicole	Neufingerl	Unilever Food Innovation Center
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Danni	Walters	Twisted Orange
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ConsumerLab supporting real world healthy food choice	Consumer Lab is one of six innovation hubs – part of the Diet and Health Open Innovation Research Club. The Diet and Health Open Innovation Research Club was established in 2022 to support strategic, collaborative research and development between businesses and academic researchers together with other users of research, policy makers and wider stakeholders. Consumer Lab has received funding to operate for five years from the Biotechnology and Biological Sciences Research Council (BBSRC), with support from DEFRA, Innovate UK and the Medical Research Council (MRC). Consumer Lab's vision is to develop a distributed UK-wide 'Consumer Lab' (a network of industry and academic members) that improves the 'ecological validity' of academic research by studying real-world food choices and forges academic-industry collaborations that focus on ways to assess and understand everyday dietary behaviours. For more information, visit Consumer Lab's official website.

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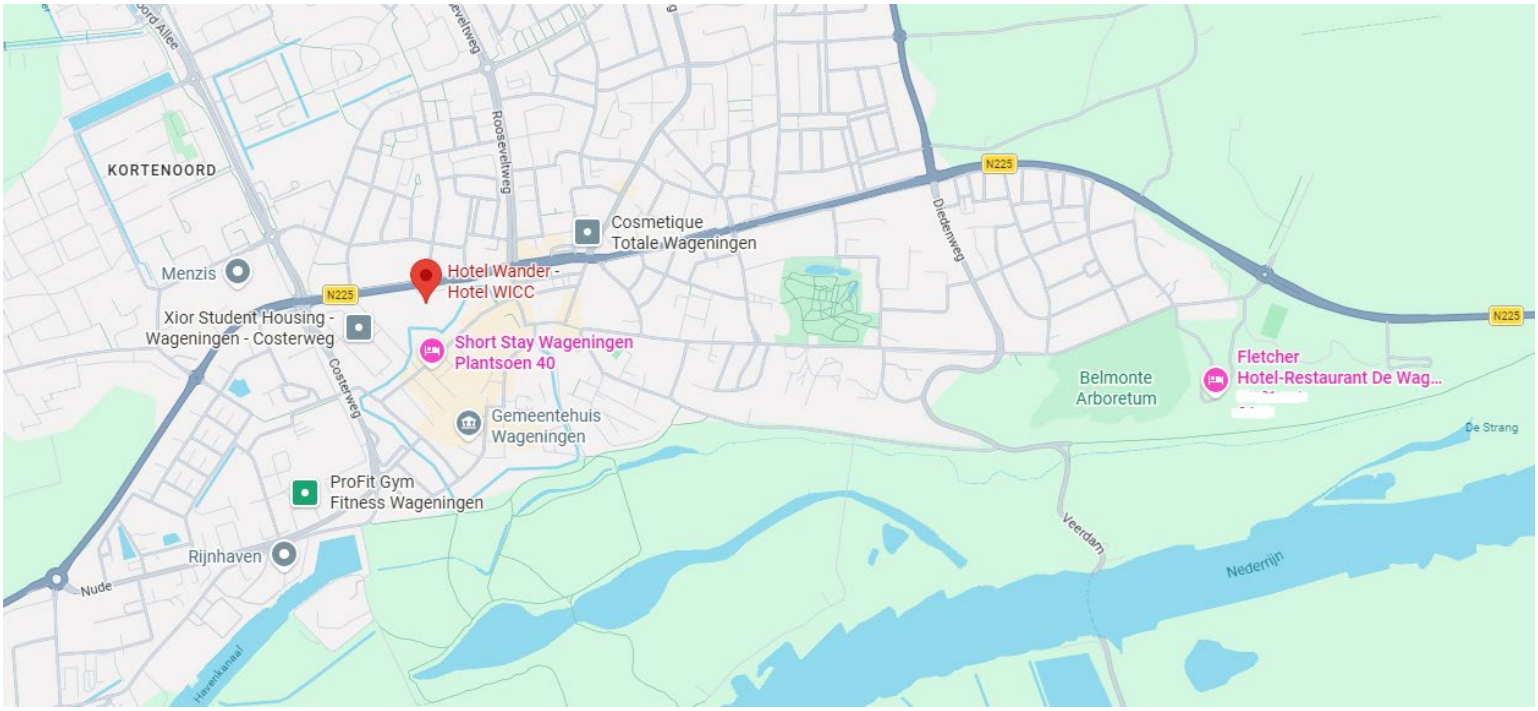
Hardship Scholarships

Thanks to ‘hardship scholarship’ funding acquired from Consumer Lab, we are delighted to have been able to fund 10 students/ECRs to attend and present their research who did not have funding to do so otherwise.

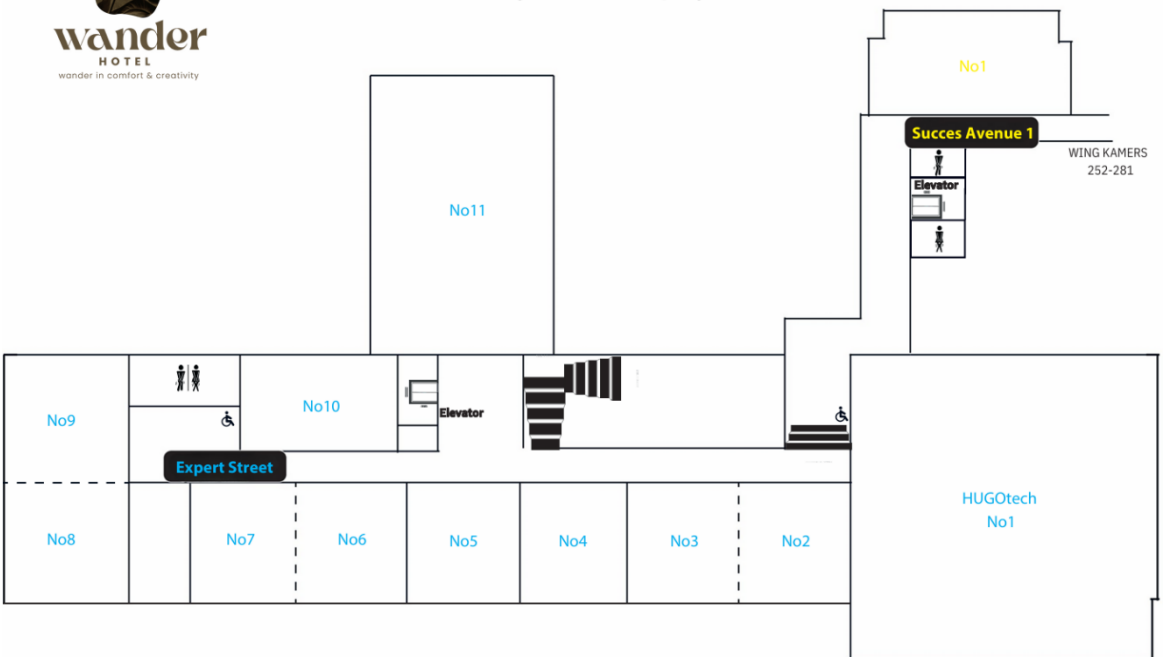
Maps

Wageningen with the hotel Wander (red star), ands Fletcher Hotel-Restaurant Wageningsche Berg.

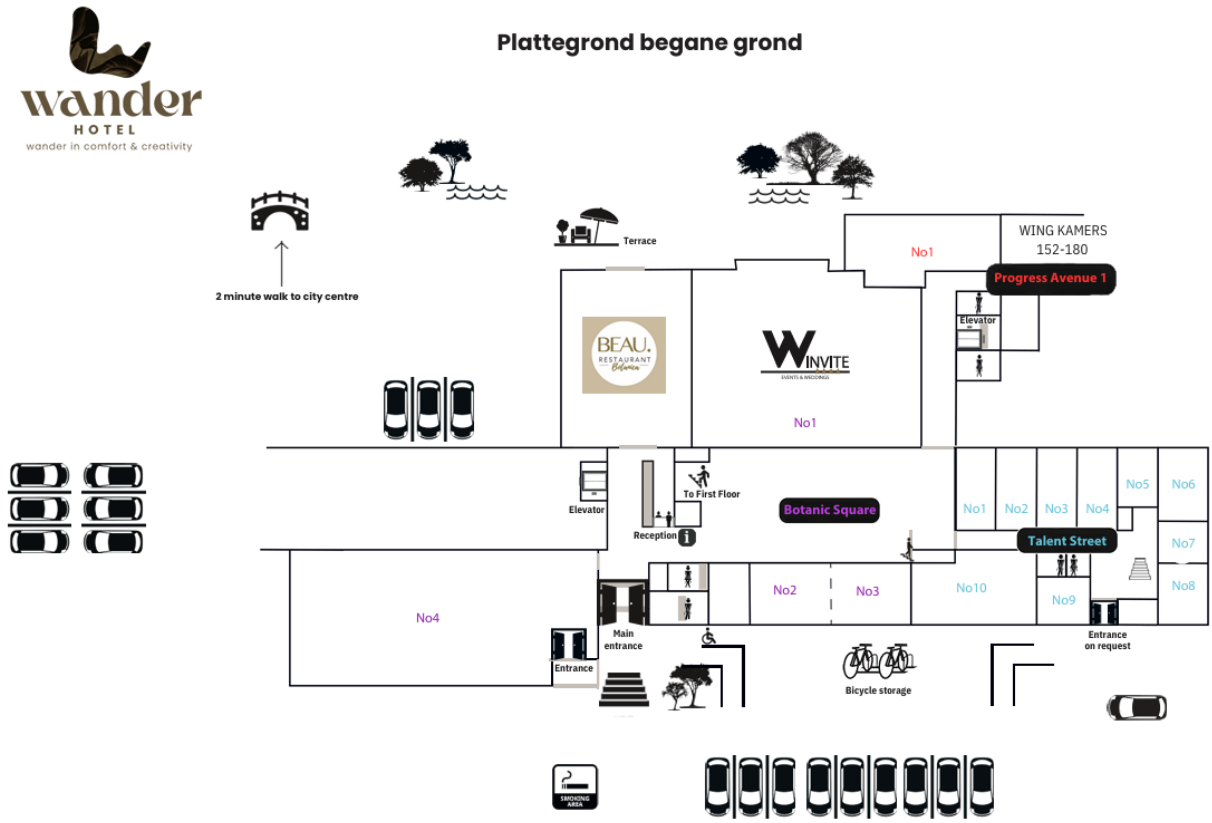


[Hotel Wander - Hotel WICC - Google Maps]

Plattegrond 1e verdieping



Plattegrond begane grond



Exit parking area

Entrance parking area