TAIWAN 2025 ISNPR TAIPEI

TSNPR ISNPR

OCT 18-19

International Society for Nutritional Psychiatry Research Conference 2025

Program Book & Abstract Book

2025 October 18-19

TAIPEI TAIWAN

Chang Yung-Fa Foundation International Convention Center

International Society for Nutritional Psychiatry Research Conference 2025

Organizers:
International Society for Nutritional Psychiatry Research (ISNPR)
Co-organizers:
Taiwanese Society for Nutritional Psychiatry Research (TSNPR)
Mind-Body Interface Symposium (MBI Symposium)

Table of Contents

Conference Committee

ISNPR Committee *(Sort in alphabetical order (A–Z))*

Identity	Name	Country
President	Wolfgang Marx	Australia
Vice-President	Kuan-Pin Su	Taiwan
Secretary	Megan Lee	Australia
Committee Member	Aniko Korosi	Netherlands
	Annabel Mueller-Stierlin	Germany
	Caroline Wallace	Canada
	Jeni Johnstone	United States
	Julia Rucklidge	New Zealand
	Kathleen Holton	United States
	Sabrina Leal Garcia	Austria
	Samantha Dawson	Australia
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TSNPR Committee *(Sort in alphabetical order (A–Z))*

Identity	Name	Country
President	Jane Pei-Chen Chang	Taiwan
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	Chih-Sheng Chu	Taiwan
	Chin-Kun Wang	Taiwan
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	Kuan-Pin Su	Taiwan
	Pan-Yen Lin	Taiwan
	Su-Er Guo	Taiwan
	Tsuo-Hung Lan	Taiwan
	Wei-Che Chiu	Taiwan
	Yang-An Chuang	Taiwan

Plenary Speakers

Prof. Felice Jacka

Distinguished Professor, Food & Mood Centre,
Institute for Mental and Physical Health and Clinical Translation (IMPACT),
Deakin University

Felice Jacka OAM is Deakin Distinguished Professor of Nutritional Psychiatry and founder and director of the Food & Mood Centre at Deakin University, and founder of the International Society for Nutritional Psychiatry Research. She is an ISI Highly Cited Researcher (2020-2023), putting her in the top 0.1% of publishing scientists worldwide for impact. In 2021 she was awarded a Medal of the Order of Australia (OAM) for her services to Nutritional Psychiatry. She has written two books for commercial publication, including the very popular children's book "There's a Zoo in my Poo".

Prof. Chin-Kun Wang

Distinguished Professor, Department of Nutrition, Chung Shan Medical University (CSMU)

Dr. Chin-Kun Wang is a distinguished professor in Chung Shan Medical University (CSMU), UN Goodwill Ambassador, Executive Councillor of International Academy of Food Science and Technology (IAFoST)., Former President of International Society for Nutraceuticals and Functional Foods (ISNFF), Fellows of IAFoS, ISNFF and IFT, Honorary President of Nutrition Society of Taiwan. He got his Ph.D. degree from National Taiwan University and worked at Chung Shan Medical University in 1993. In 1996, he promoted as a full professor, and then took the positions of the Chair, Dean, Vice President and President at CSMU. His research work is focused on human clinical trials and human metabolism of medicine, nutritional supplement, nutraceuticals, herbs, and functional foods. Recently he also pays great attention on precision nutrition by using big data. He got the National Award of Biomedicine for his great contribution to the medical education in 2008. He also got the awards of outstanding research of many societies from 2009 to 2024. For food safety and nutrition, he promoted the legislation for school sanitary law and national nutrition law. And now is working on the nutrient fortification for all life spans and set up the two way AI platform. In 2024, Dr. served as an UN Goodwill Ambassador, he tries his best to treat zero hunger and work together with the scientists around the world and would like to promote the advanced development of health.

Prof. Kenji Hashimoto

Professor, Division of Clinical Neuroscience, Center for Forensic Mental Health, Chiba University

Dr. Kenji Hashimoto is a professor at Chiba University (Chiba, Japan). He earned his Ph.D. from Kyushu University (Fukuoka, Japan). Following his doctoral studies, he worked at the National Institutes of Health/National Institute on Drug Abuse (MD, USA); the National Center of Neurology and Psychiatry (Tokyo, Japan); and a domestic pharmaceutical company. In 2001, he joined the Chiba University Graduate School of Medicine, and since 2005, he has been a professor at the Chiba University Center for Forensic Mental Health. His primary research focus is translational research in psychiatric and neurological disorders, particularly involving brain–body communication. He serves as an editor for Psychopharmacology, and European Archives of Psychiatry & Clinical Neuroscience. Additionally, he is an editorial board member for several journals, including Molecular Psychiatry, and Brain Behavior and Immunity. He has published over 770 manuscripts and holds an H-index of 94 according to Elsevier Scopus.

Prof. Joseph Hibbeln

Benjamin Meaker Distinguished Visiting Professor, University of Bristol

Dr. Joseph R. Hibbeln is an adult psychiatrist and nutritional neuroscientist, recognized as a pioneer in Nutritional Psychiatry. He served for 30 years at the U.S. National Institutes of Health, where he was Chief of the Section on Nutritional Neurosciences at the National Institute on Alcohol Abuse and Alcoholism. He is currently Benjamin Meaker Distinguished Visiting Professor at the University of Bristol, UK.

Dr. Hibbeln's groundbreaking work established the links between omega-3 fatty acid deficiencies and mental health disorders including depression, aggression, and substance dependence. He has published more than 200 peer-reviewed papers (h-index 79) and his research has shaped clinical guidelines from the American Psychiatric Association, U.S. Dietary Guidelines, and World Health Organization.

He continues to advise international health agencies and governments, advancing nutrition-based strategies to improve mental health, child neurodevelopment, and resilience in military and civilian populations.

Acknowledgements

GOVERNMENT SUPPORT

NSTC 國家科學及技術委員會 National Science and Technology Council

Ministry of Health and Welfare 衛生福利部

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Conference Information

Organizers

International Society for Nutritional Psychiatry Research (ISNPR)

Co-organizers

Taiwanese Society for Nutritional Psychiatry Research (TSNPR)
Mind-Body Interface Symposium (MBI Symposium)

Date

October 18 – 19, 2025

Conference Venue

Chang Yung-Fa Foundation International Convention Center
Address: No.11, Zhongshan S. Rd., Taipei City 10048, Taiwan

Official Language

The official language of the ISNPR 2025 is English.

Internet Access

Free WI-FI is available throughout the conference period in conference venue.

Lost and Found

The lost and found items should be returned/claimed at the registration desk.

Certificate of Attendance

Certificate of attendance will be provided to each registered participant during the check-in process.

Registration & Information Desk

Venue: Lobby, 1F, Chang Yung-Fa Foundation International Convention Center
Service Hours:

Date	Time
October 18 (Sat.)	**08:15-17:30**
October 19 (Sun.)	**08:30-15:30**

Badge Information

The badge will be provided to each registered attendee together with all the necessary coupons onsite upon checking in. All participants are required to wear the badge all the time during the conference.

* Security personnel will allow only persons with badges to enter the session rooms.
* Badges are not transferable and cannot be lent to anyone for any purpose during the conference.

Lunch

Lunch boxes will be provided during the lunch break from 12:00 to 13:30 on October 18–19 in Room 601, 6F, Chang Yung-Fa Foundation International Convention Center.

Coffee Break

Refreshments will be provided during the coffee break time on October 18-19 at the Exhibition Area (Room 610), 6F, Chang Yung-Fa Foundation International Convention Center.

Exhibition

Venue: Room 610, 6F, Chang Yung-Fa Foundation International Convention Center

Operating Hours:

Date	Time
October 18 (Sat.)	**08:15-17:30**
October 19 (Sun.)	**08:30-15:30**

Social Program

City Tour *(Additional Purchase)*

Date: October. 17 (Fri.)
Time: 13:30-17:30
Chiang Kai-shek Memorial Hall → Dihua Street → Chiang Kai-shek Memorial Hall
*Shuttle bus will be provided at 13:30, please gather in front of the Archway of the Chiang Kai-shek Memorial Hall.

Opening Ceremony

Date: October 18 (Sat.)
Time: 08:45-09:20
Venue: Room 601, 6F, Chang Yung-Fa Foundation International Convention Center

Welcome Dinner *(Additional Purchase)*

Date: October 18 (Sat.)
Time: 18:30-21:30
Venue: Mu Dan, 2F, La Marée
Address: No. 16, Siyuan St., Zhongzheng Dist., Taipei City, Taiwan
*Coupon is required.
*Jointly organized by ISNPR and ISPH. Tables labeled "ISNPR" are reserved for ISNPR participants.
*Shuttle bus will be provided at 17:50, please gather at the lobby of Chang Yung-Fa Foundation International Convention Center.
*Shuttle bus will be provided to transport guests back to the HOTEL COZZI Zhongxiao Taipei, Howard Civil Service International House and The Howard Plaza Hotel Taipei.

Award Ceremony & Closing

Date: October 19 (Sun.)
Time: 17:40-18:00
Venue: Room 601, 6F, Chang Yung-Fa Foundation International Convention Center

Instruction for Chairs/ Speakers/ Oral/ Posters

For Chairs

1. Please be in your session room at least 20 minutes prior to the start of the session.
2. A set of hardcopies of the session details with the speakers' details will be prepared in each session room for you.
3. Kindly adhere to the time, and the timekeeper in each session room will notify you of the time left.

For Plenary Speakers / Oral Speakers / Symposiums

1. Kindly upload your slide in the assigned session room during breaks, lunch, or other spare time. Please save the slide at least 20 minutes (during previous break) before the session starts.
2. Please come to the session room 10 minutes before the session starts in order to meet up with session chair and perform a quick check of all presentation material.
3. In order to run the program smoothly, all presenters are requested to keep the presentation on time.
4. As only Wi-Fi will be available at the venue, we kindly request that speakers download and embed any videos or hyperlinks in advance, or prepare screenshots as needed.
5. Timekeeping Rules:
   - At 5 minutes remaining: one short chime.
   - At 3 minutes remaining: one short chime.
   - At time up: one long chime accompanied by a time-up sign.

For Poster

Venue	**Room 601, 6F**, Chang Yung-Fa Foundation International Convention Center
Mounting Time	**10/18 (Sat.) 08:30 - 10:00**
Presentation and Judging Time	**10/18 (Sat.) 12:30 - 13:30** *Presenting author is requested to man the poster during this time period.
Removal Time	**10/19 (Sun.) 15:30 – 17:30** *Posters not removed will be disposed directly without permission.

Program at A Glance

Date / Time	Friday, Oct. 17	Saturday, Oct. 18			
		Room 601	Room 602	Room 603	Room 605
08:15 AM - 08:45 AM		Registration (1F Lobby)			
08:45 AM - 09:20 AM		Opening Ceremony (R 601)			
09:20 AM - 10:00 AM		Plenary 1 - Prof. Felice Jacka (R 601)			
10:00 AM - 10:20 AM		Morning Break (R 610)			
10:20 AM - 12:00 PM (100 mins)		Food, Mircobes, and Mood: Integrative Approache to Depression and Anxiety (S11)	Nutrient Fortification, Strategy and Application I (S12) *10:10 AM - 12:30 PM (140 mins)*	Precision Health / Precision Medicine (S13) *10:20 AM - 12:30 PM (130 mins)*	Functional Foods (S14) *10:20 AM - 12:30 PM (130 mins)*
12:00 PM - 01:30 PM		Poster & Lunch (R 601, 602, 605)		ISPH Kick off & General Assembly	Poster & Lunch (R 601, 602, 605)
01:30 PM - 03:10 PM (100 mins)	01:30 PM – 05:30 PM Half-Day Conference Tour (Dihua Street)	Nutrition, Aging and Cognitive Health (S15)	Nutrient Fortification, Strategy and Application II (S16)	Precision Functional Foods (S17)	Phytotherapy / Pharmacology I (S18)
03:10 PM - 03:30 PM		Afternoon Break (R 610)			
03:30 PM - 04:10 PM		Plenary 2 - Prof. Chin-Kun Wang (R 601)	Nutrient Fortification, Strategy and Application III (S20) *03:30 PM - 05:40 PM (130 mins)*	Precision Cancer Medicine (S21) *03:30 PM - 05:50 PM (140 mins)*	Phytochemistry / Pharmacology II (S22) *03:30 PM - 05:40 PM (130 mins)*
04:10 PM - 05:40 PM (90 mins)		From Molecules to Clinics: Nutritional and Molecular Innovations in Mental Health (S19)			
05:40 PM - 06:00 PM					
06:30 PM - 09:30 PM		Welcome Dinner (La Marée) *Additional Purchase* **Shuttle bus will be provided at 17:50, please gather at the lobby of venue.*			

08:15-17:30 Exhibition (R610) / 10:00-17:30 Poster (R601)

Date / Time	Sunday, Oct. 19			
	Room 601	Room 602	Room 603	Room 605
08:30 AM - 09:20 AM	Registration (1F Lobby)			
09:20 AM - 10:00 AM	Plenary 3 - Prof. Kenji Hashimoto (R 601)			
10:00 AM - 10:20 AM	Morning Break (R 610)			
10:20 AM - 12:00 PM (100 mins)	Lifestyle, Diet and Neurodevelopment (S23)	MBI Symposium: Meeting Traditional Medicine and Mental Health: Experience From Korea and Taiwan (S24)	MBI Symposium: Stress and Microglia (S25)	Blind Spots in Nutritional Psychaity Research (S26)
12:00 PM - 01:30 PM	Poster & Lunch (R 601, 602, 605)			
01:30 PM - 03:10 PM (100 mins)	Mental Health and the Potential of Plant-Based Approaches (S27)	Diet and Depression (S28)	Advancing Clinical Practice in Nutritional Psychiatry: A Global Approach (S29)	Smart Nutrition for Mental Health: AI-Generated Diets and Food Security Interventions (S30)
03:10 PM - 03:30 PM	Afternoon Break (R 610)			
03:30 PM - 04:10 PM	Plenary 4 - Prof. Joseph Hibbeln (R 601)			
04:10 PM - 05:40 PM (90 mins)	Translation of Clinical Psychiatric Nutrition Research into Solutions that Improve Human Mental Health (S31)	Nutrition and Mental Health: Insights from International Psychologists in Clinical Practice (S32)	Lifestyle Psychiatry: Findings From the Lancet Commission on Physical Health in People Living With Mental Illness (S33)	The Role of Multinutrients in the Treatment of Psychiatric Disorders: The Science and the Practice (S34)
05:40 PM - 06:00 PM	Award Ceremony & Closing (R601)			

08:30-15:30 Poster (R601) & Exhibition (R610)

Daily Program

Friday, October 17, 2025

Half-Day Conference Tour (Additional Purchase)

Time: 01:30 PM - 05:30 PM

Saturday, October 18, 2025 — Room 601

Opening Ceremony

Time: 08:45 AM - 09:20 AM (35 mins)

Plenary 1

Time: 09:20 AM - 10:00 AM (40 mins)

Chair:	Wolfgang Marx (Australia)
PL1	*The Lost Harvest: Industrial Diets, Vanishing Diversity, and the Global Health Crisis* Felice Jacka (Australia)

Morning Break

Time: 10:00 AM - 10:20 AM (20 mins)

Food, Mircobes, and Mood: Integrative Approache to Depression and Anxiety (S11)

Time: 10:20 AM - 12:00 PM (100 mins)

Chairs:	Anat Elmann (Israel), Wolfgang Marx (Australia)
S11-2	*Neuroprotective, Anti-Anxiety and Microbiome-Modulation Properties of Pulicaria incisa Infusion* Anat Elmann (Israel)
S11-3	*Supplementation of Probiotics Prevent Development of Depressive-Like Behaviour in Early-Life Social Stress Animal Model* Emmanuvel Rajan (India)
S11-4	*More Than Mood: Nutritional Vulnerability in Geriatric Depression as a Multidimensional Risk Factor* Polona Prelog (Slovenia)
S11-5	*A Specialised Outpatient Clinic for Nutrition and Mental Health: A Pilot Study* Katharina Größbacher (Austria)
S11-6	*Melatonin Administration Reverses Alzheimer's Induced Neurodegenerative Like Changes in Zebrafish Model Organism* Rutvi Vaja (India)

Saturday, October 18, 2025	Room 602
Nutritional Fortification, Strategy and Application I (S12)	
Time: 10:10 AM - 12:30 PM (140 mins)	
Chairs:	Gow-Chin Yun (Taiwan), Chin-Kun Wang (Taiwan)
S12-1	*Vitamin D and Calcium Fortification- Current Status* Yi-Chin Lin (Taiwan)
S12-2	*Prioritizing Iron Deficiency Risk Among Taiwanese Women: A 5×5 Matrix Approach for Nutrition Policy* Yi Fang Liu (Taiwan)
S12-3	*Dietary Fiber and Magnesium Fortification- Current Status and Strategy* Shu Ru Zhuang (Taiwan)
	Total Discussion
S12-4	*Design and Characterization of Nutrient-Fortified Foods for Anaemia Prevention* Thierry Astruc (France)
S12-5	*Co-Creation Strategies for Developing Nutrient-Optimized Foods for Targeted Populations* Katarzyna Świąder (Poland)
S12-6	*Reimagining Food Fortification Through a Consumer-Centered Approach* Diana Bogueva (Australia)
S12-7	*African Mushrooms in Nutritional Intervention and Food Fortification* Thierry Regnier (South Africa)
S12-8	*Incorporating Faba Bean Into Wheat Bread as a Fortification Strategy to Boost Protein and Fiber Levels* Indrawati Oey (New Zealand)
S12-9	*Development of Functional Sorghum-Based Foods Fortified With Protein and Probiotics: A Sustainable Solution for Nutritional Security in South African Communities* Mathoto Thaoge (South Africa)

Saturday, October 18, 2025	Room 603
Precision Health / Precision Medicine (S13)	
Time: 10:20 AM - 12:30 PM (130 mins)	
Chairs:	Yong Sang Song (Republic of Korea), Mona Elena Popa (Romania)
S13-1	*Precision Medicine Approaches in Obesity: Integrating Adipose-Derived Stem Cells and Microbial Extracellular Vesicles* Yong Sang Song (Republic of Korea)
S13-2	*LncRNAs in the Era of Precision Health: Unlocking Molecular Vulnerabilities in Cancer. Rewriting the Noncoding Code of Cancer* Danny N. Dhanasekaran (USA)

S13-3	*Nutraceutical and Functional Food Industry Roles and Responsibilities in Precision Health Approach* Mona Elena Popa (Romania)
S13-4	*What Is the Most Competitive Power in Personalized Nutrition That We Are Prone to Missing in the Future AI Era?* Dae Young Kwon (Republic of Korea)
S13-5	*Generation Z and Precision Health* Dora Marinova (Australia)
S13-6	*Advancing Precision Health and Medicine Through Data-Driven Discovery of Prognostic and Therapeutic Markers* Claudia Cerella (Luxembourg)
S13-7	*Dietary Impacts on the Gut Microbiota for Improved Health Outcomes* Sarah S. Comstock (USA)
S13-8	*Precision Health Through Hospital Food Service Optimization: Menu Customization for Patient Nutrition Need Fulfillment and Food Waste Reduction* Kuncoro Harto Widodo (Indonesia)
S13-9	*Optimising Iron Intake: Addressing Iron Deficiency Anaemia Through Precision Nutrition and Genetic Insights* Loh Su Peng (Malaysia)

Saturday, October 18, 2025 — Room 605

Functional Foods (S14)

Time: 10:20 AM - 12:30 PM (130 mins)

Chairs:	Wan Rosli Wan Ishak (Malaysia), Darshee Baxi (India)
S14-1	*Does Incorporating Overripe Banana Extract (OBE) in Food Improve Nutritional Value and Glycemic Parameters?* Wan Rosli Wan Ishak (Malaysia)
S14-2	*Role of Functional Foods in PCOS: Investigating the Gut Microbiome – Ovary Cross Talk* Darshee Baxi (India)
S14-3	*Red Fruit (Pandanus conoideus Lamk.) Oil: A Natural Antioxidant, Colorant, and Fortificant for Functional Food Applications* Zita Letviany Sarungallo (Indonesia)
S14-4	*Alimurgic Plants: The Sustainable Source of Functional Food and Health Promoting Substances* Irina Lazarova (Bulgaria)
S14-5	*Functionality of Fermented Wheat Germ Extract (FWGE) – a Showcase for Novel Fermented Foods* Aline Issa (Lebanon)
S14-6	*Effect of Drying Methods on the Hydrophilic, Reconstitution and Viscosity of Okra (Abelmoschus esculentus L. Moench) Slices* Kunle Oni (Nigeria)

S14-7	*Optimization and Sensory Acceptance of Coconut Water Drinks Fortified With α-Tocopherol/Tocotrienol Loaded Nanostructured Lipid Carriers* Sri Raharjo (Indonesia)
S14-8	*Multiomics Insight on Bioavailability, Gut Microbiota and Proteomic Profiling of Green Tea Polyphenols Nanoparticles* Nurul Husna Shafie (Malaysia)
S14-9	*Barnyard Millet: A Potential Functional Food for Metabolic Syndrome Management* Siti Raihanah Shafie (Malaysia)

Saturday, October 18, 2025 — Room 601, 602, 605

Poster & Lunch

Time: 12:00 PM - 01:30 PM (90 mins)

Saturday, October 18, 2025 — Room 601

Nutrition, Aging and Cognitive Health (S15)

Time: 01:30 PM - 03:10 PM (100 mins)

Chairs:	Shizuo Yamada (Japan), Tsuo-Hung Lan (Taiwan)
S15-1	*Sarcopenia and Nutritional Status in Alzheimer's Disease: Implications for Muscle Function and Clinical Outcomes in Geriatric Psychiatry* Vesna Simič (Slovenia)
S15-2	*Beneficial Effects of a Representative Polymethoxylated Flavonoid, Nobiletin on Cognitive Impairment With Aging* Shizuo Yamada (Japan)
S15-3	*Evaluation of the Beneficial Effects of ETAS® on Normal Aging or Mild Cognitive Impairment Subjects: A Pilot Randomized Controlled Trial* Natalia Mikhailichenko (Russia)
S15-4	*Statin Use and Risk of Late-Life Depression in Community-Dwelling Older Adults: Evidence From a Target Trial Emulation Study* Debele Roba (Australia)
S15-5	*Fat and Fiber Consumption, Sociocultural Factors Influencing Food Choices, and Sporadic Alzheimer's Disease in Alabama, USA, and Cape Town, South Africa* Daphne Spyropoulos (USA)
S15-6	*Assessing the Acceptability and Feasibility of Two Meal Provision Interventions for Individuals With Schizophrenia: The Schizophrenia, Nutrition and Choices in Kilojoules (SNaCK) Study* Johnston Donni (Australia)

Saturday, October 18, 2025	Room 602
Nutritional Fortification, Strategy and Application II (S16)	
Time: 01:30 PM - 03:10 PM (100 mins)	
Chairs:	Khaw MC Richard (Singapore), Mari Maeda Yamamoto (Japan)
S16-1	*Development of Nutritionally Balanced Self-Care Diets* Mari Maeda Yamamoto (Japan)
S16-2	*Singapore Standards and Guidelines in Nutrition Fortification and Claims in Food Products* Khaw M C, Richard (Singapore)
S16-3	*Dual Certification Regulation and Its Impact on Functional Food Market* Dony Dahana (Japan)
S16-4	*Vulnerable Plates: What We (Don't) Know About Food and Health* Liviu Gaceu (Romania)
S16-5	*Trends and Development of Plant-Based Milk and Dairy Alternatives: A Multifaceted Research Approach* Christelle Bou Mitri (Lebanon)
S16-6	*Are Ready-to-Eat Foods a Healthy Alternative? A Review of Nutrition, Health Risks, and Convenience* Azrina Azlan (Malaysia)
S16-7	*RP-HPLC/DAD Methods for Seperation and Determination of Water-Soluble and Fat-Soluble Vitamins in Food Supplements and Brewer's Yeast* Maya Georgieva (Bulgaria)

Saturday, October 18, 2025	Room 603
Precision Functional Foods (S17)	
Time: 01:30 PM - 03:10 PM (100 mins)	
Chairs:	Christofora Hanny Wijaya (Indonesia), Amin Bin Ismail (Malaysia)
S17-1	*Usage of Plant Derived Exosome Like Nanoparticles (PDEN) in Precision Functional Foods: Ginger PDEN in Cajuputs® Candy* Christofora Hanny Wijaya (Indonesia)
S17-2	*Cocoa and Obesity – a Recent Study* Amin Bin Ismail (Malaysia)
S17-3	*Reengineering of Traditional Foods: Food Processing for Modernization and Precision Health Goals* Indah Epriliati (Indonesia)
S17-4	*Precision Extraction of Antioxidants and Neuroprotective Metabolites From Banana Flowers Using Ultrasound and Solvent Mixtures* Widiastuti Setyaningsih (Indonesia)

S17-5	*From Sensory Insights to Precision Health: Innovating Nutritional Interventions* Lotis dL. Francisco (Philippines)
S17-6	*Nutritional Resilience in Aging Populations: Addressing Malnutrition and Functional Decline in Lebanese Nursing Homes Through Precision Nutrition* Jacqueline Doumit (Lebanon)
S17-7	*Can You Eat Carnations? Saponins and Other Phytochemicals As Bioactive Compounds* Matkowski Adam (Poland)

Saturday, October 18, 2025 — Room 605

Phytotherapy / Pharmacology I (S18)

Time: 01:30 PM - 03:10 PM (100 mins)

Chairs:	Ardiansyah (Indonesia), Rotimi. E. Aluko (Canada)
S18-1	*Antioxidative and Antihypersensitive Properties of a Multifunctional Hemp Seed Protein Hydrolysate: Evidence From a Randomized Double-Blind Cross Over Trial* Rotimi. E. Aluko (Canada)
S18-2	*Volatile, Non-Volatile Compounds, Sensory Profiles and Hypotensive Effects of Kenikir Leaves (Cosmos caudatus L)* Ardiansyah (Indonesia)
S18-3	*Biochemical Evaluation of Ceratonia Silique (Carob; Fabaceae)* Abdel Qader Qawasmeh (Palestine)
S18-4	*Phytochemical Composition and Bio-Nutrient Impact of Aronia melanocarpa <Michx.> Elliott Berries: Brinding Nutritional Benefits With Biological Effects* Corina Danciu (Romania)
S18-5	*Transformation of Sulfur-Containing Compounds in Garlic* Hao Jing (China)
S18-6	*In Vitro and In Vivo Antidiabetic Activity of Stingless Bee (Heterotrigona itama) Honey and Its Phenolic-Rich Extract* Mohd-Esa Norhaizan (Malaysia)
S18-7	*Development of Diabetes Prophylaxis Using Food-Derived Electrophilic Compounds and the Biomarker Selenoprotein P* Yoshiro Saito (Japan)

Saturday, October 18, 2025 — Room 610

Afternoon Break

Time: 03:10 PM - 03:30 PM (20 mins)

Saturday, October 18, 2025 — Room 601

Plenary 2

Time: 03:30 PM - 04:10 PM (40 mins)

Chair:	Young Joon Surh (Republic of Korea)
PL2	*Advancing Global Health Through Nutrition: Taiwan's Leadership in Zero Hunger and Nutritional Psychiatry* Chin-Kun Wang (Taiwan)

From Molecules to Clinics: Nutritional and Molecular Innovations in Mental Health (S19)

Time: 04:10 PM - 05:40 PM (90 min)

Chairs:	Young Joon Surh (Republic of Korea), Wei-Che Chiu (Taiwan)
S19-1	*The Impact of Glycation on Fibrillation and Stability of α-Synuclein: An Introspection Into the Role of Dietary AGEs in Cellular Amyloidogenesis* Samudra P. Banik (India)
S19-2	*Level of HMGB1, S100β, and NSE Biomarkers in Patients With Depressive Symptom: A Meta Analysis* Ikbal Malau (Taiwan)
S19-3	*Investigation Into the Therapeutic Mechanism of a Ketogenic Diet in a Schizophrenia Neurodevelopmental Mouse Model* Alexis Hung (Australia)
S19-4	*Nutritional Modulation of Cellular Redox Signaling in the Management of Age-Associated Disorders* Young Joon Surh (Republic of Korea)
S19-5	*In Silico Analyses Reveals Receptor Tyrosine Kinases As Prime Targets of Shatavarin IV Mediated Augmentation of Cognitive Health* Debasis Bagchi (USA)
S19-6	*Molecular Deciphering of Iron and Sialic Acid in the Lactoferrin Molecule and Their Impact on Neurodevelopment* Bing Wang (Australia)

Saturday, October 18, 2025 — Room 602

Nutritional Fortification, Strategy and Application III (S20)

Time: 03:30 PM - 05:40 PM (130 min)

Chairs:	Anca Miron (Romania), Gokare Ravishankar (India)
S20-1	*Plant-Derived Therapies for Rheumatoid Arthritis: Current Status and Emerging Trends* Anca Miron (Romania)
S20-2	*Emerging Possibilities of Applications of Biotechnologically Derived Food Ingredients to Meet the Nutritional Needs of Vegetarian and Vegan Populations* Gokare Ravishankar (India)
S20-3	*Nutritional Evaluation of Fortified Bread From Wheat, Soy-Cheese, and Pineapple Rind Blends* Folake Idowu-Adebayo (Nigeria)

S20-4	*Combination of Javanese Turmeric (Curcuma xanthorrhiza) and Lemongrass (Cymbopogon citratus) Drink Exhibit Anti-Hyperglycemic, Anti-Oxidant and Prebiotic Activities In Vitro* Eni Harmayani (Indonesia)
S20-5	*Cassava Bioflavonoids Ameliorate Metabolic Syndrome and Its Related Complications Induced Rats Administered a High-Fat Diet and High-Fructose Drink* Elfahmi (Indonesia)
S20-6	*The Role of Food Packaging Technology to Support Personalized Nutrition Recommendation* Ignasius Radix A.P. Jati (Indonesia)
S20-7	*The Potential of Indonesia's Local Food Resources in the Prevention and Management of Degenerative Diseases: In Vitro and In Vivo Studies* Rumiyati (Indonesia)
S20-8	*Poppy Family Medicinals: Isoquinoline Alkaloids From Papaveraceae* Sylwia Zielinska (Poland)
S20-9	*Promoting Nutrition Through Forest Conservation in Cameroon* Ngwang Erick Chuye (Cameroon)

Saturday, October 18, 2025 — Room 603

Precision Cancer Medicine (S21)

Time: 03:30 PM - 05:50 PM (140 min)

Chairs:	Benjamin K. Tsang (Canada), Danny N. Dhanasekaran (USA)
S21-1	*A Circulatory Biomarker for Ovarian Cancer* Benjamin K. Tsang (Canada)
S21-2	*Identifying Metabolic Vulnerabilities to Prevent Invasive Lobular Breast Cancer Metastasis* Christina L. Addison (Canada)
S21-3	*Liquid Biopsy for Early Detection of Cancer* Tae Jin Ahn (Republic of Korea)
S21-4	*15-Hydroxyprostaglandin Dehydrogenase and Its Product 15-Ketoprostagladin E2 As Emerging Targets for Cancer Chemoprevention and Therapy* Hye-Kyung Na (Republic of Korea)
S21-5	*Proteomic Study of Small Extracellular Vesicle Biomarkers for Breast Cancer Personalized Medicine* Jie Ni (Australia)
S21-6	*Harnessing Controlled Necrosis for Immunogenic Vaccination Against Myeloid Leukemia* Marc Diederich (Republic of Korea)

S21-7	*Targeting Malignant Ascites in Ovarian Cancer* Zhizhuang Joe Zhao (USA)
S21-8	*Precision Nutrition for Ovarian Cancer: Targeting Obesity-Driven lncRNA Signatures* Camelia Munteanu (Romania)
S21-9	*Novel Phytochemical Analogs-Promising Therapeutics for Endocrine and Metabolic Diabetes* Rajalaksmi Manikkam (India)

Saturday, October 18, 2025 — Room 605

Phytochemistry / Pharmacology II (S22)

Time: 03:30 PM - 05:40 PM (130 min)

Chairs:	Johji Inazawa (Japan), Ly Nguyen Binh (Vietnam)
S22-1	*Enhancing Nutritional Standards: A Comprehensive Review of Micronutrient Fortification in Vietnam and Future Regulatory Amendments* Ly Nguyen Binh (Vietnam)
S22-2	*Therapeutic Effects of Myrtaceae Extracts on Diabetes Mellitus* Szu-Chuan Shen (Taiwan)
S22-3	*Cancer-Associated microRNAs and Their Therapeutic Applications* Johji Inazawa (Japan)
S22-4	*Characteristics of Smart Flavor From Enzymatic Hydrolysis of Sardinella lemuru and Its Potential As Healthy Food Ingredients* Yuli Witono (Indonesia)
S22-5	*QSAR Analysis of Natural Lupeol Analogs As Antimalarial Agents* David Mary Rajathei (India)
S22-6	*The Protective Role of Mushroom Beta-D-Glucans in the Development of Psychoemotional Complications in Patients With Moderate COVID-19* Mark Shamtsyan (Russia)
S22-7	Chettinad Cuisine: Regional Flavours and Health Benefits P. Rajakumari (India)
S22-8	*Assessing Choline Bioavailability and Metabolism From a New Dairy Ingredient (WPPC) for Post-Menopausal Women: A Randomized Controlled Trial* Sheng-Luen Shih (USA)

Saturday, October 18, 2025 — La Marée *shuttle bus provided

Welcome Dinner (Additional Purchase)

Time: 06:30 PM - 09:30 PM

*Shuttle bus will be provided at 17:50, please gather at the lobby of Chang Yung-Fa Foundation International Convention Center.

*Shuttle bus will be provided to transport guests back to the HOTEL COZZI Zhongxiao Taipei, Howard Civil Service International House and The Howard Plaza Hotel Taipei.

Sunday, October 19, 2025	Room 601
Plenary 3	
Time: 09:20 AM - 10:00 AM (40 mins)	
Chair:	Jane Pei-Chen Chang (Taiwan)
PL3	*Resilience Enhancing Effects of Nutrition Through the Gut-Brain Axis* Kenji Hashimoto (Japan)
Morning Break	
Time: 10:00 AM - 10:20 AM (20 mins)	
Lifestyle, Diet and Neurodevelopment (S23)	
Time: 10:20 AM - 12:00 PM (100 min)	
Chairs:	Caroline Wallace (Canada), Julia Rucklidge (New Zealand)
S23-1	*Randomised Placebo-Controlled Trial Investigating the Efficacy and Safety of a Vitamin-Mineral Formula Targeting Irritability in Teenagers: The Balancing Emotions of Adolescents With Micronutrients (BEAM) Study* Julia Rucklidge (New Zealand)
S23-3	*Lifestyle Behaviours and Mental Health Problems During the Transition to the University: A Focus on Health Sciences Students* Vicent Balanzá-Martínez (Spain)
S23-4	*Relationship Between Diet and Mental Health in Children and Young Adults: Results of a Systematic Review and Meta-Analysis of Randomised Controlled Trials and Prospective Cohort Studies* Jessica Green (Australia)
S23-5	*Process Evaluation of Online Lifestyle Therapy Versus Psychotherapy for Reducing Depression: Results From the CALM Randomised Non-Inferiority Trial* Lara Radovic (Australia)
S23-6	*Does Prenatal Diet Quality Influence Postpartum Mental Health Status? Interim Analysis From a Prospective Cohort Study* Caroline Wallace (Canada)

Sunday, October 19, 2025	Room 602
MBI Symposium: Meeting Traditional Medicine and Mental Health: Experience From Korea and Taiwan (S24)	
Time: 10:20 AM - 12:00 PM (100 min)	
Chair:	Jongwoo Kim (Republic of Korea)
S24-1	*Understanding Mental Disorders Based on Korean Medicine (Traditional Medicine)* Jongwoo Kim (Republic of Korea)

S24-3	*Effectiveness of Mindfulness and Qigong Training for Self-Healing in Patients With Hwabyung and Depressive Disorder: The Mediation Effect of Integrative Vitality* Seok-In Yoon (Republic of Korea)
S24-4	*A Study on the Effectiveness of Mindfulness-Based Digital Interventions on Stress, Burnout, and Work Engagement of Workers* Seung-il Lee (Republic of Korea)
	Panel Discussion Jongwoo Kim (Republic of Korea), Seok-In Yoon (Republic of Korea), Seung-il Lee (Republic of Korea)

Sunday, October 19, 2025 — Room 603

MBI Symposium: Stress and Microglia (S25)

Time: 10:20 AM - 12:00 PM (100 min)

Chair:	Keith W. Kelley (USA)
S25-1	*The Role of the Gut Microbiome in Chemotherapy-Induced Nervous System Side Effects* Leah Pyter (USA)
S25-2	*From Brain to Gut: Mechanisms of Stress-Induced Microbiota Dysbiosis and Immune Dysfunction* Jacob M. Allen (USA)
S25-3	*The Roles of Dark Microglia in Health and Disease* Marie-Eve Tremblay (Canada)
S25-4	*Priming During Pregnancy: How Maternal Viral Infection Regulates Transplacental Trafficking, Fetal Brain Macrophage Function, and Cortical Development* Adrienne Antonson (USA)
	Panel Discussion Leah Pyter (USA), Jacob M. Allen (USA), Marie-Eve Tremblay (Canada), Adrienne Antonson (USA)

Sunday, October 19, 2025 — Room 605

Blind Spots in Nutritional Psychaity Research (S26)

Time: 10:20 AM - 12:00 PM (100 min)

Chairs:	Annabel Mueller-Stierlin (Germany), Cheng-Hao Tu (Taiwan)
S26-1	*Blind Spots in Nutritional Psychiatry Research: Uncovering the Psychological and Social Factors Affecting Mental Health* Annabel Mueller-Stierlin (Germany)
S26-2	*Disordered Eating in Severe Mental Illness: An Overlooked Barrier to Nutritional Interventions and Mental Health Recovery* Katie Dalton (Australia) & Anu Ruusunen (Finland)

S26-3	*Nutritional Psychiatry: An Appetite for Dietary Change? Food and Eating Behaviours Are Only a Part of the Process* Scott Teasdale (Australia) & Kevin Williamson (UK)
	Panel Discussion Annabel Mueller-Stierlin (Germany), Katie Dalton (Australia), Anu Ruusunen (Finland), Scott Teasdale (Australia), Kevin Williamson (UK)

Sunday, October 19, 2025 — Room 601, 602, 603, 605

Poster & Lunch

Time: 12:00 PM - 01:30 PM (90 mins)

Sunday, October 19, 2025 — Room 601

Mental Health and the Potential of Plant-Based Approaches (S27)

Time: 01:30 PM - 03:10 PM (100 min)

Chairs:	Megan Lee (Australia), Pan-Yen Lin (Taiwan)
S27-1	*Fruits for the Mind: In-Vitro Evidence of Antioxidant and Neuroprotective Effects of Phenolic and Betalain Compounds* Julianna Neri (Australia)
S27-2	*Navigating the Landscape of Plant-Based Diet Quality and Depression Research* Megan Lee (Australia)
S27-4	*Gene–Dietary Pattern Interactions and Their Associations With Depression Among Malaysian Adults on a Plant-Based Diet* Yuan Kei Ching (Malaysia)
S27-5	*Exploring the Association Between Ultra-Processed Food Intake and Cognitive Function: A Prospective Cohort Study Using UK Biobank* Farzaneh Asoudeh (Australia)
S27-6	*Plant-Based Diets and Mental Health Outcomes: A Systematic Review With Meta-Analysis* Rubén Fernández-Rodríguez (Spain / Australia)

Sunday, October 19, 2025 — Room 602

Diet and Depression (S28)

Time: 01:30 PM - 03:10 PM (100 min)

Chairs:	Tasinme Akbaraly (France), Lee Yan Sheen (Taiwan)
S28-1	*Adherence to a Healthy Nordic Diet Is Associated With a Lower Prevalence of Depressive Symptoms* Johanna Mylläri (Finland)
S28-2	*The Role of a Modified Mediterranean Diet in Reducing Symptoms of Mood Disorders: A Randomised Control Trial* Angela Gilmour (Australia)

S28-3	*Experiences of Trauma, Vitamin B6 Status, and Symptomatic Depression* Luis Falcon (USA)
S28-4	*A Novel Ayurvedic Therapy and Nutrition for the Treatment of Major Depressive Disorder* Kaviraja Udupa (India)
S28-5	*Adherence to MIND Diet and Risk of Recurrent Depressive Symptoms: Prospective Whitehall II Cohort Study* Tasinme Akbaraly (France)
S28-6	*Hype or Hope? A Ketogenic Diet as an Adjunctive Treatment in Treatment-Resistant Depression (DIME): A Randomised Controlled Trial* Min Gao (UK)

Sunday, October 19, 2025 — Room 603

Advancing Clinical Practice in Nutritional Psychiatry: A Global Approach (S29)

Time: 01:30 PM - 03:10 PM (100 min)

Chairs:	Annabel Mueller-Stierlin (Germany), Tetyana Rocks (Australia)
S29-1	*A Co-Produced Approach to Embedding Nutritional Psychiatry in Practice Within the United Kingdom's National Health Service: Progress and Plans* Kevin Williamson (UK)
S29-2	*From Evidence to Practice: A Strategic Approach to Implement Lifestyle Interventions in Mental Health in Germany, Austria and Switzerland* Annabel Mueller-Stierlin (Germany)
S29-3	*Nutrition Professionals Working in Mental Health Settings* Anu Ruusunen (Finland)
S29-4	*Nutritional Psychiatry in Brazil: The Main Obstacles* Ana Carvalho (Brazil)
	Panel Discussion Kevin Williamson (UK), Annabel Mueller-Stierlin (Germany), Anu Ruusunen (Finland), Ana Carvalho (Brazil)

Sunday, October 19, 2025 — Room 605

Smart Nutrition for Mental Health: AI-Generated Diets and Food Security Interventions (S30)

Time: 01:30 PM - 03:10 PM (100 min)

Chairs:	Oliver Ardill-Young (Australia), Chih-Sheng Chu (Taiwan)
S30-1	*Can AI Dietitians Support Nutritional Psychiatry? A Comparative Study of Meal Plans Generated by Large Language Models* Szu-Wei Cheng (Taiwan)

S30-3	*Methodological and Reporting Recommendations for Clinical Trials in Nutritional Psychiatry: Guidelines From the International Society for Nutritional Psychiatry Research* Wolfgang Marx (Australia)
S30-4	*Feasibility, Acceptability, Reliability and Validation of a Targeted Nutrition-Risk Screening Tool in Mental Healthcare: The NutriMental Screener* Scott Teasdale (Australia)
S30-5	*The Gap Between Knowing Healthy Eating and Doing Healthy Eating: A Systematic Review of Food Use Skills in People With a Severe Mental Illness* Johnston Donni (Australia)
S30-6	*Smart Feeds: Co-Design and Pilot Implementation of a Program to Improve the Food Security of Adult Community Mental Health Service Users* Oliver Ardill-Young (Australia)

Sunday, October 19, 2025 — Room 610

Afternoon Break

Time: 03:10 PM - 03:30 PM (20 mins)

Sunday, October 19, 2025 — Room 601

Plenary 4

Time: 03:30 PM - 04:10 PM (40 mins)

Chair:	Kuan-Pin Su (Taiwan)
PL4	*Challenges in Implementing Nutritional Psychiatry on a Public Health Level and an RCT of n-3 HUFAs in Chronic Violent Alcohol Use Disorder* Joseph Hibbeln (UK)

Translation of Clinical Psychiatric Nutrition Research Into Solutions That Improve Human Mental Health (S31)

Time: 04:10 PM - 05:40 PM (90 min)

Chairs:	Dahlia Varghese (USA), Cherry Hui-Chih Chang (Taiwan)
S31-1	*The Extraction of Clinical Psychiatric Nutrition Data Utilizing Medical Nutrition Therapy for the Assessment of Anxiety Symptoms* April Hackert (USA)

S31-2	*Effective Strategies From the Registered Dietitian Nutritionist That Positively Impact Human Behaviour Change Related to the Eating Experience* Jenna Fleming (USA)
	Panel Discussion April Hackert (USA), Jenna Fleming (USA)

Sunday, October 19, 2025 — Room 602

Nutrition and Mental Health: Insights From International Psychologists in Clinical Practice (S32)

Time: 04:10 PM - 05:40 PM (90 min)

Chairs:	Megan Lee (Australia), Jane Pei-Chen Chang (Taiwan)
S32-1	*Insights From International Psychologists in Clinical Practice: Background and Methods* Megan Lee (Australia)
S32-2	*Insights From International Psychologists in Clinical Practice: Findings From Austria and Germany* Annabel Mueller-Stierlin (German) & Sabrina Leal-Garcia (Austria)
S32-3	*Insights From International Psychologists in Clinical Practice: Findings From Ireland and the United Kingdom* Jayne Leonard (Ireland)
S32-4	*Insights From International Psychologists in Clinical Practice: Findings From Australasia* Angela Gilmour (Australia)
S32-5	*Insights From International Psychologists in Clinical Practice: Findings From Taiwan* Jane Pei-Chen Chang (Taiwan)
	Panel Discussion Megan Lee (Australia), Annabel Mueller-Stierlin (German), Sabrina Leal-Garcia (Austria), Jayne Leonard (Ireland), Angela Gilmour (Australia), Jane Pei-Chen Chang (Taiwan)

Sunday, October 19, 2025 — Room 603

Lifestyle Psychiatry: Findings From the Lancet Commission on Physical Health in People Living With Mental Illness (S33)

Time: 04:10 PM - 05:40 PM (90 min)

Chairs:	Phillip Ward (Australia), Yang-An Chuang (Taiwan)

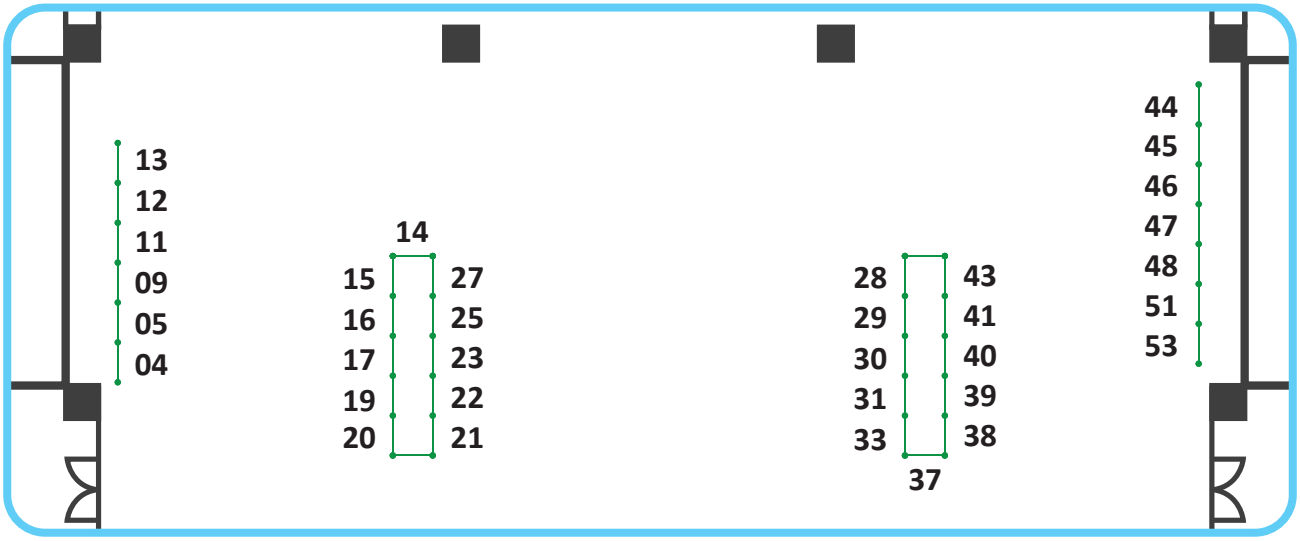
S33-1	*Implementing Lifestyle Interventions in Mental Health Care: An Overview of the Third Report From the Lancet Psychiatry Physical Health Commission* Scott Teasdale (Australia)
S33-2	*Lifestyle Psychiatry in LMIC Settings: Results From Uganda* Phillip Ward (Australia)
S33-3	*Addi Road: Food Security and Physical Activity Support in a Community Setting* Oliver Ardill-Young (Australia)
	Panel Discussion Scott Teasdale (Australia), Phillip Ward (Australia), Oliver Ardill-Young (Australia)

Sunday, October 19, 2025	**Room 605**
The Role of Multinutrients in the Treatment of Psychiatric Disorders: The Science and the Practice (S34)	
Time: 04:10 PM - 05:40 PM (90 min)	
Chairs:	Julia Rucklidge (New Zealand)
S34-1	*The Role of Multinutrients in the Treatment of Psychiatric Disorders: The Science and the Practice* Julia Rucklidge (New Zealand)

Sunday, October 19, 2025	**Room 601**
Award Ceremony & Closing	
Time: 05:40 PM - 06:00 PM (20 mins)	

Posters

Floor Map for Poster Boards



Poster Instruction

Venue	**Room 601, 6F**, Chang Yung-Fa Foundation International Convention Center
Mounting Time	10/18 (Sat.) 08:30 - 10:00
Presentation and Judging Time	10/18 (Sat.) 12:30 - 13:30 *Presenting author is requested to man the poster during this time period.
Removal Time	**10/19 (Sun.) 15:30 – 17:30** *Posters not removed will be disposed directly without permission.

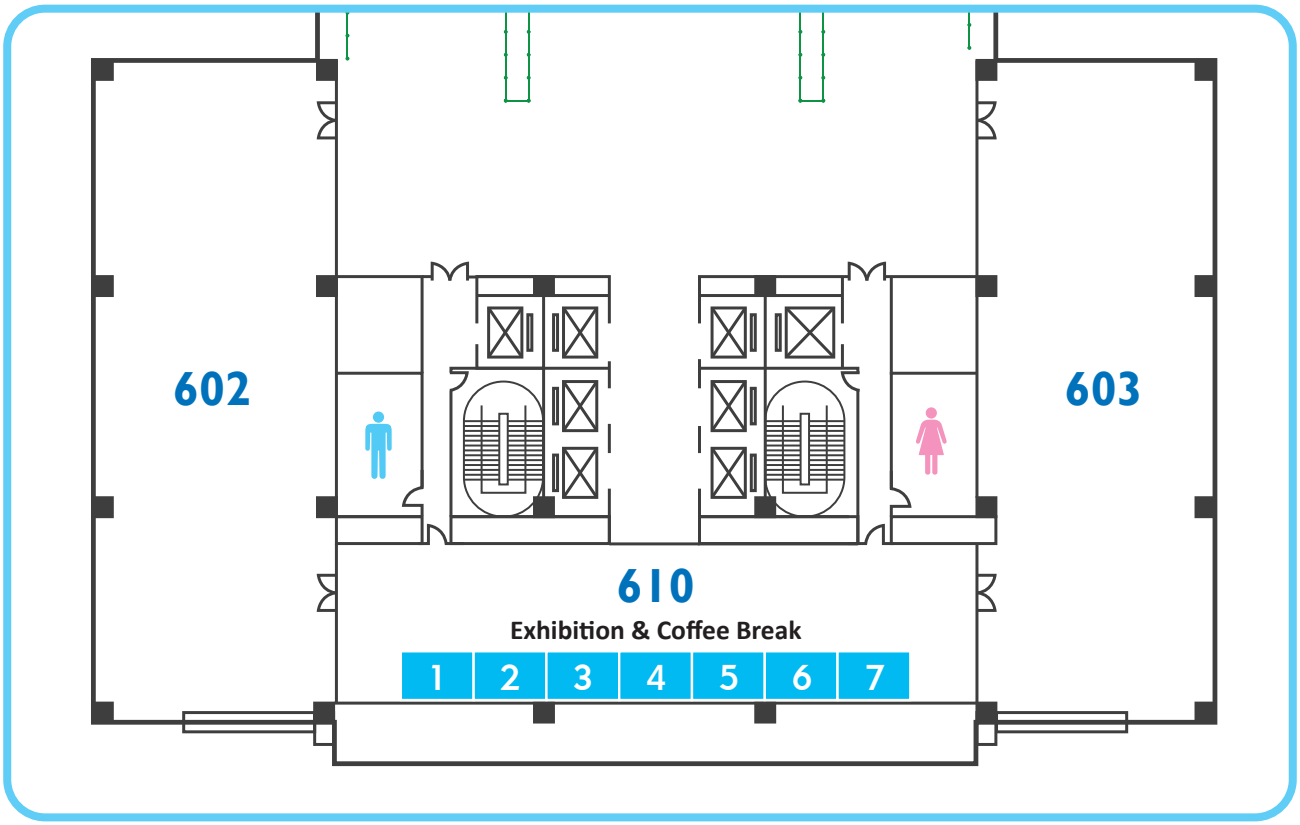
Clinical Research	
Poster 04	*Topical Application of Peony and Licorice Decoction Attenuates Exercise-Induced Muscle Pain: A Pilot Double-blind Randomized Self-Controlled Trial* Daniel Tzu-Li Chen (Taiwan)
Poster 05	*Association between Dietary Inflammatory Index and Current Major Depression Episode among Participants of the Brazilian Longitudinal Study of Adult Health (ELSA-Brasil)* Marcus Zanetti (Italy)
Poster 09	*Investigating the Prospective Association of Ultra-processed Food Intake with Risk of Bipolar Disorder and Schizophrenia Incidence: Evidence from the UK Biobank* Deb Zhang (Australia)

Poster 11	*Investigating Patterns of Association between Dietary Risks and Depression Prevalence Over Time: Results from the National Health and Nutrition Examination Survey* Emma Todd (Australia)
Poster 12	*Changes of Neurotoxicity Symptoms in Major Depressive Disorder Patients* Suet-Kei Wu (Malaysia)
Poster 13	*Mind, Body, and Medication: How Disordered Eating Mediates Self-Determination and Treatment Engagement in Severe Mental Illness* Katie Dalton (Australia)
Poster 14	*Assessing the Relationship Between Cognitive Function and Frailty Scores: Implications for Nutritional Strategies in Aging Populations* Yu-Li Liu (Taiwan)
Poster 15	*The Mediating Role of Gut Microbiome Dysbiosis in the Relationship Between Antibiotic Therapy and Depressive Disorders: An Evidence-Based Case Report* Athaya Budiman Dea (Indonesia)
Poster 16	*The Efficacy of Vitamin D supplementation in Patients Diagnosed with Depression: A Dose Response Meta-Analysis of Randomized Controlled Trials* Hsuan-Hsien Liu (Taiwan)
Poster 17	*Peripheral endocannabinoids in major depressive disorder: A meta-analysis* Muhammad Yaseen (Pakistan)
Poster 19	*SSRI Response and Neurofilament Light Chain in MDD* Chun-Yen Yang (Taiwan)
Poster 20	*Association of Anxiety and Depression with Characteristics of TCM Pulse Diagnosis in Ulcerative Colitis* Chien-Yun Hou (Taiwan)
Poster 21	*Can Washoku Help Prevent Depressive Symptoms?* Haruka Miyake (Japan)
Poster 22	*PROgram to Enhance Cardiovascular Risk Trough an Intervention of Nutrition in Bipolar Disorder (PROTECTION-BD): Study Protocol for a Dietary Intervention* Tetyana Rocks (Australia)
Poster 23	*Stress During COVID19 Pandemic: A Global Study Among Psychiatrists* Po-Hsuan Wu (Taiwan)
Pre-Clinical	
Poster 25	*Effects of Probiotic Microorganism Administrations in Pregnancy Stress-Exposed Nulliparous Female Mice: With a Focus on Affective Behaviors, the HPA-Axis and Inflammatory Responses* Pei-Ling Tsai (Taiwan)
Poster 27	*Water Extract of Artemisia indica Willd. Attenuates Blue Light-Induced Melanopsin Expression and Corticosterone-Mediated Injury in ARPE-19 Cells* Wei-Cheng Chen (Taiwan)

Systematic Reviews / Meta-Analyses	
Poster 28	*Early Antibiotic Exposure and Risk of Psychiatric and Neurocognitive Outcomes: Results of a Systematic Review and Meta-Analysis* Jessica Green (Australia)
Poster 29	*Change of Short-Chain Fatty Acids Levels in Depression and Therapeutic Potential: A Meta-Analysis* Do Le Quang (Viet Nam)
Poster 30	*Oxidative Stress Biomarkers and Antioxidants in Children and Adolescents With Attention Deficit Hyperactivity Disorder: A Meta-Analysis* Patricia Suwindi (Indonesia)
Poster 31	*Symptomatic and Cognitive Effects of D-Amino Acid Oxidase Inhibitors in Patients With Schizophrenia: A Meta-Analysis of Double-Blind Randomized Controlled Trialsy* Chun-Hung Chang (Taiwan)
Other Miscellaneous	
Poster 33	*Association of Underweight With Gait and Predicted Fall Risk in Patients With Chronic Obstructive Pulmonary Disease (COPD)* Do Le Quang (Viet Nam)
Poster 37	*The Efficacy of Curcumin in Reducing Depressive Symptoms: A Systematic Review* Elizabeth Torres (Brazil)
Poster 38	*Food Security and Its Association With Symptoms of Depression, Anxiety and Stress* Elizabeth Torres (Brazil)
Poster 39	*Native Fruits From Brazil With an Impact on Inflammation: A Systematic Review* Elizabeth Torres (Brazil)
Poster 40	*Neuroprotective Potential of Açaí (Euterpe oleracea): An Integrative Review of Its Potential Beneficits on Mood, Obesity, and Cardiovascular Disease* Elizabeth Torres (Brazil)
Poster 41	*Potential and Pitfalls: Evaluating ChatGPT's Accuracy in Depression Assessment Using Standardized Patients* Chun-Hung Chang (Taiwan)
Poster 43	*Canadian Physicians' Perceptions of Nutritional Psychiatry: An Exploratory Survey Study* Wallace Caroline (Canada)
Poster 44	*Gender Differences in the Association Between Vegetarianism and Mental Health: Evidence From the Taiwan Biobank* Chia-Ying Sung (Taiwan)
Poster 45	*The Nutrition Facts of US Comfort Foods by Race/Ethnicity and Discrimination: Findings From the "Eating in America" Study* Dorothy Chiu (USA)

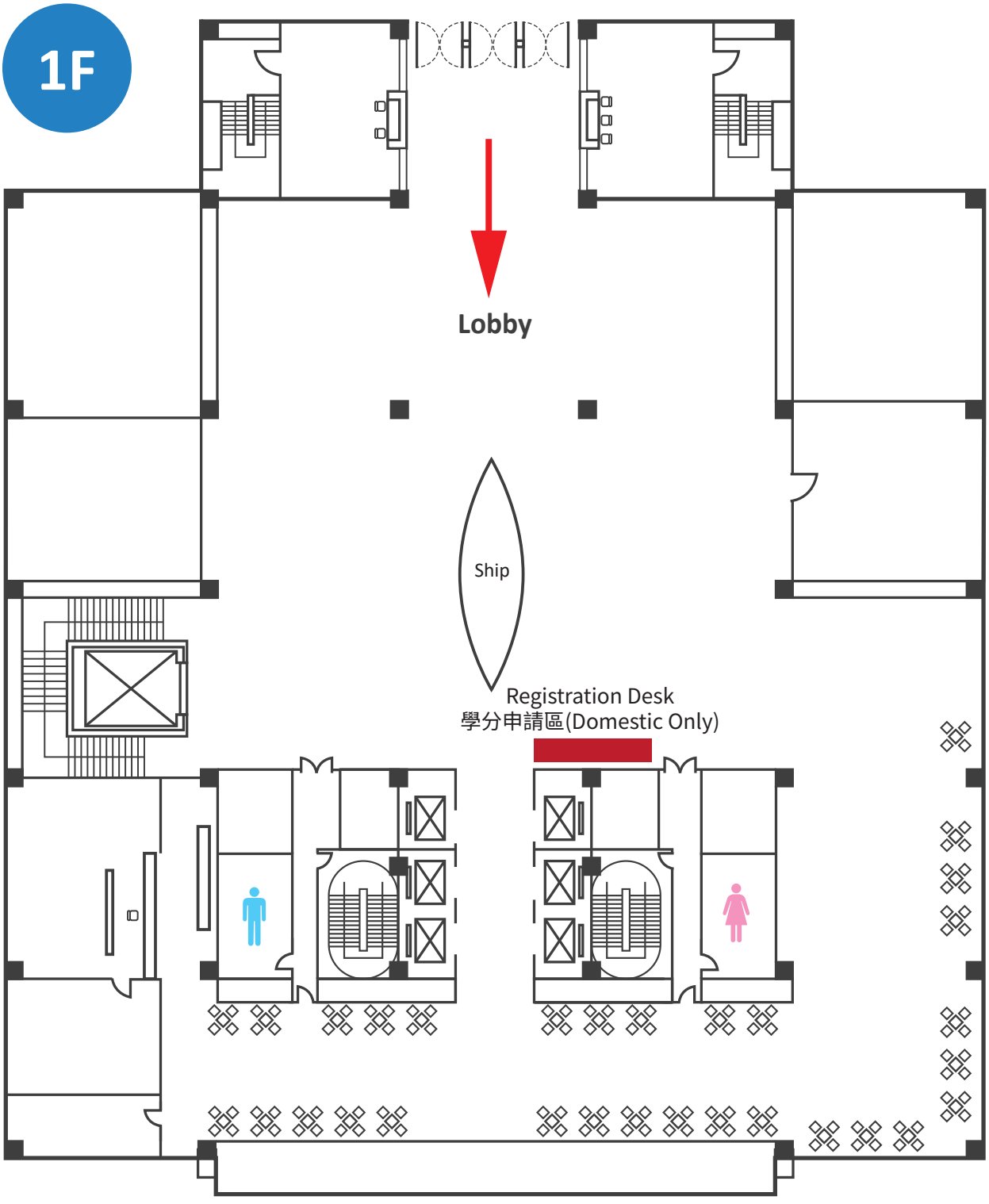
Poster 46	*A Nutrition Intervention Experience in the Care of an Adolescent Patient With Anorexia* Chen-Ling Chang (Taiwan)
Poster 47	*Dose-Response Relationship of Omega-3 Supplementation in Bipolar Disorder: A Meta-Analysis of Randomized Controlled Trials* Jia-Chun Wu (Taiwan)
Poster 48	*Nutritional Support for Addiction Recovery: A Systematic Review* Christopher Jenney (USA)
Poster 51	*COVID-19 Quarantine and Its Association With Weight Status, Dietary Behavior, and Body Image Among Adolescents* Ayesha Iqbal (Pakistan)
Poster 53	*Association Between EAT-Lancet Planetary Health Diet and Mental Health Among Taiwanese Adolescents* Yi-Chen Huang (Taiwan)

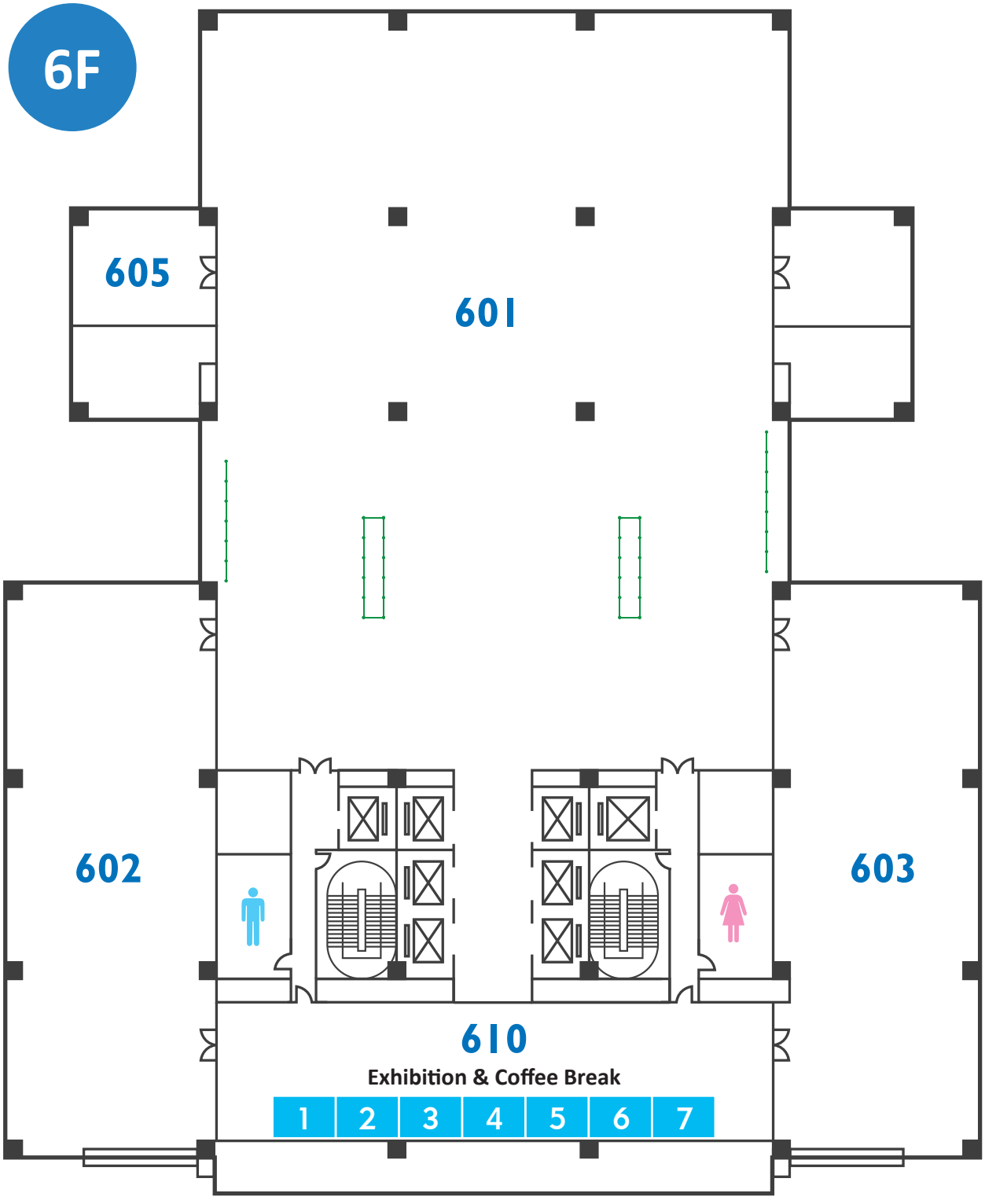
Exhibition



Booth No	Exhibitors
1	MANIDAD AG COMPANY
2	TOONG YEUAN ENTERPRISE CO., LTD.
3	I-MEI Foods Co., LTD.
4	HUGHES BIOTECHNOLOGY CO., LTD.
5	YOKE CHUAN BIOTECHNOLOGY CO., LTD.
6	KONFTEC CORPORATION
7	PRISMA HEALTH CARE CORPORATION

Floor Plan

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Exhibition & Coffee Break
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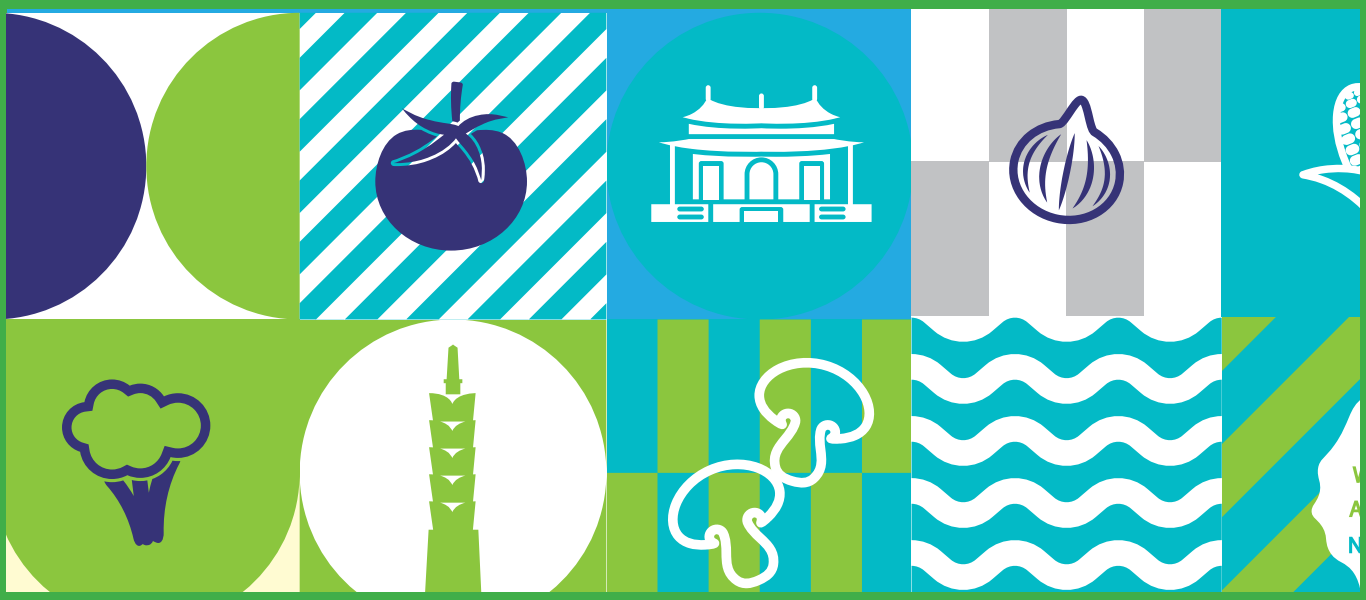
TAIWAN 2025 ISNPR TAIPEI

OCT 18-19

International Society for Nutritional Psychiatry Research Conference 2025

TAIPEI TAIWAN

Abstract



PL1

The Lost Harvest: Industrial Diets, Vanishing Diversity, and the Global Health Crisis

Felice Jacka

Industrial food production and the global shift toward ultraprocessed diets are simultaneously eroding soil microbial communities and human gut biodiversity- two inter-dependent ecosystems that underpin planetary and population health.

Intensive monoculture, agro-chemical inputs, and excessive tillage reduce soil microbial richness and functional resilience, limiting plant phytonutrient profiles and disrupting the environmental microbiota that historically colonised human hosts. Parallel dietary patterns dominated by ultra-processed foods (UPFs) deliver lowfibre, additive-rich products that associate with an ~30% decline in gut microbial α-diversity and depletion of keystone taxa.

Converging epidemiological data and clinical trials implicate microbial depletion and disruption in the rising prevalence of autoimmune, cardiometabolic, neurodevelopmental, oncological, and common mental disorders arising from Western dietary patterns. This tightly linked biodiversity loss in humans and the environment, as a function of the global industrialised food system, represents a “microbial depletion continuum” that amplifies the global burden of non-communicable diseases, including mental and brain disorders, and underscores the urgent need for restorative agricultural practices and systemic public health interventions.

PL2

Advancing Global Health Through Nutrition: Taiwan's Leadership in Zero Hunger and Nutritional Psychiatry

Chin-Kun Wang

In February 2024, Dr. Chin-Kun Wang, a globally renowned expert in nutrition and public health, was appointed as a United Nations Goodwill Ambassador to champion the UN's Sustainable Development Goal of Zero Hunger. As an Executive Committee Member of the Taiwan Society for Nutritional Psychiatry Research (TSNPR), Dr. Wang has made significant contributions to advancing the field of nutritional psychiatry.

As the world population surpasses 8 billion, ensuring food security and nutritional well-being has become a critical global challenge. Dr. Wang has dedicated his mission to improving global health by addressing the root cause of poor health outcomes in underserved areas: food scarcity, rather than inadequate medication. Representing the UN, Dr. Wang has visited multiple countries and regions severely affected by hunger to better understand their food supply chains and needs. A key challenge he has tackled is the stringent food safety regulations in developed countries, which often lead to the rejection and destruction of imported foods that are safe for consumption under WHO standards but do not meet local regulatory thresholds. In collaboration with UN agencies, local governments, and stakeholders, Dr. Wang has facilitated the redistribution of such surplus food to regions in need, covering transportation costs through UN initiatives. To date, this program has successfully addressed food shortages in 15 cases, transforming wasted resources into lifesaving nourishment.

Beyond his UN role, Dr. Wang is also an Executive Committee Member of the Taiwan Society of Nutritional Psychiatry Research (TSNPR). Under their efforts, Taiwan has emerged as a key player in advancing nutrition's role in brain health, with Dr. Wang spearheading the firstever Brain Health Innovation Award in Taiwan. These initiatives underscore Taiwan's contributions to world health, particularly in integrating nutrition and mental health to foster both physical and psychological well-being.

Dr. Wang's innovative work bridges the gap between food security, nutrition, and health equity, showcasing Taiwan's leadership in addressing global challenges. His advocacy for sustainable food distribution systems and the pivotal role of nutrition in preventive health care serves as a beacon for international collaboration, policy development, and research in advancing global health.

PL3

Resilience Enhancing Effects of Nutrition Through the Gut-Brain Axis

Kenji Hashimoto

The gut-brain axis is a bidirectional communication network linking the gastrointestinal (GI) tract with the central nervous system (CNS), profoundly influencing stress responses and mental health. Accumulating evidence shows that gut microbiota play a crucial role in this process by modulating inflammatory pathways, neurotransmitter synthesis, and the regulation of the hypothalamicpituitary-adrenal axis. Disruptions in microbial balance can increase stress susceptibility by promoting systemic inflammation and impairing stress hormone regulation, while a balanced and diverse microbiome supports resilience through optimal neuroimmune interactions and modulation of key neural circuits. Nutritional interventions have emerged as effective strategies to enhance resilience. Diets rich in fiber, polyphenols, and omega-3 polyunsaturated fatty acids promote the growth of beneficial bacteria that produce anti-inflammatory metabolites. These metabolites not only reduce inflammation but also support neuroplasticity and improve neurotransmitter function, enhancing the brain's ability to cope with stress.

Sulforaphane, a bioactive compound abundant in cruciferous vegetables such as broccoli, has shown promise in enhancing stress resilience. It primarily activates the Nrf2 pathway, upregulating antioxidant and detoxifying enzymes, thereby reducing oxidative stress and inflammation—key factors in stress-related neuronal damage. In my laboratory, we have found that dietary intake of sulforaphane glucosinolate (SGS) produces resilience-enhancing effects through the gut-brain axis. Today, I will discuss the role of the gut-brain axis in stress resilience and vulnerability, as well as the resilience-enhancing effects of SGS.

PL4

Challenges in Implementing Nutritional Psychiatry on a Public Health Level and an RCT of n-3 HUFAs in Chronic Violent Alcohol Use Disorder

Joseph Hibbeln

The vast body of scientific literature linking deficits of brain critical nutrients and unhealthy foods on mental health disorders is now overwhelming. A paradigm shift is now needed to implement science on a public health population level. First, people must want better foods to improve mental health, or nothing will change. Fundamental is naming what people already know, for example: *Junk foods, make junk brains, make junk behaviors, for generations*. Demands for better foods for mental health and neurodevelopment creates a "pull though demand". If people want it, then companies will provide it. Next, identification of unique barriers and creative solutions for the multiple levels of society are needed. A critical framework is appreciating who will benefit economically and politically. Brain nutrition is simply not well recognized by psychiatric and medical organizations who may also fear revenue loss but may create roles for psychiatric dieticians. The global food industry has revenues valued at roughly $8 trillion/year, more than the oil and gas industry. Do food industries perceive potential benefit or harm? Medical insurance companies may benefit from lower costs. Another example has been our efforts to improve brain critical nutrients the US Department of Defense food supply since the 2009 Nutritional Armor for the Warfighter Conference. Recent economic modeling of the small cost increase to foods as compared to potential cost savings of $750 million in mental health care direct costs stimulated serious consideration for passage by the US Congress and Senate. Change is possible by listening to the world.

Chronic alcohol use depletes critical brain nutrients, including omega-3 HUFAs (docosahexaenoic acid, DHA, and eicosapentaenoic, EPA). Here we evaluated if restoration of Omega-3 HUFAs reduced heavy drinking days among participants with severe alcohol use disorders and violent histories.
Participants (n=97) were randomized to receive either 120 mg EPA-triglyceride plus 760 mg DHA- triglyceride /day = 1.88 g/d or placebo capsules containing corn oil and 1% fish oil and were evaluated weekly for 90 days. Compliance was verified by changes in cerebrospinal fluid (CSF) and plasma fatty acid compositions.

n-3 HUFAs increased the likelihood of sobriety (heavy drinking days <10/90d) nearly 10-fold over 90 days (OR=9.59 95% CI 1.77-52.05, p<0.009) in hierarchical stepwise multivariate logistic regression analyses, including adjustment for sober housing (OR=5.52 95% CI 1.33-22.86, p<0.006). Changes in CSF neurotransmitter markers, cytokines and NPY did not differ comparing elevated to unchanged participants and were not associated with HDD or measures of depression or aggression. Clinical effect sizes found here are substantially greater than any FDA-approved pharmaceutical or psychotherapeutic treatments.

S11-4

More Than Mood: Nutritional Vulnerability in Geriatric Depression as a Multidimensional Risk Factor

Polona Rus Prelog[1,2] (presenter), Vesna Simič[1]
[1]University Psychiatric Clinic Ljubljana, Slovenia
[2]Medical Faculty, University of Ljubljana

ORAL

Objective: Malnutrition in older adults with depression is a clinically significant but often overlooked issue. It can exacerbate depressive symptoms, delay recovery, and increase the need for institutional care. Despite these risks, nutritional status is rarely systematically evaluated in psychiatric settings.

Methods: This presentation will present data from a multi-phase study examining the prevalence of sarcopenia and malnutrition among psychiatric patients aged 65+, and will discuss the implementation of a clinical nutritional care pathway to improve outcomes. This cross-sectional study involved psychiatric inpatients aged 65 and older admitted at the University Psychiatric Clinic Ljubljana for treatment of depressive disorders. Nutritional status was assessed using the Mini Nutritional Assessment (MNA), body mass index (BMI), and blood biomarker parameters, including serum albumin levels. Additional parameters included cognitive function (assessed with Mini-Mental State Examination (MMSE)), depression severity (assessed with Geriatric Depression Scale (GDS)), and relevant sociodemographic data such as living situation, prior care arrangements, and social support availability.

Results: Early observations suggest a notable overlap between malnutrition, cognitive impairment, and more severe depressive symptoms. Social isolation and lack of structured support appear to be contributing risk factors. These interrelated challenges are often insufficiently addressed in psychiatric care planning.

Conclusions: Incorporating nutritional assessments into standard psychiatric evaluations could substantially improve care for older adults with depression. Early identification of at-risk individuals can guide personalized interventions that support both mental and physical recovery, while potentially reducing readmission rates and long-term care dependency.

S11-5

A Specialised Outpatient Clinic for Nutrition and Mental Health: A Pilot Study

Katharina Größbacher, Jolana Wagner-Skacel, Birgit del Fabro, Anna Obermayer, Sabrina Leal Garcia
Department of Medical Psychology, Psychosomatics and Psychotherapy, Medical University of Graz (MUG), Austria

Objective: This pilot study aims to evaluate the efficacy and patient satisfaction of Europe's first specialised outpatient clinic for nutrition and mental health, which places nutrition and its impact on psychosomatic conditions at the centre of personalized care concepts. The primary goal is to assess changes in subjective stress perception in patients throughout their treatment at the clinic, while also critically analysing the overall concept in order to identify potential pitfalls and areas for improvement.

Methods: Standardized questionnaires will be used to assess stress, resilience, somatic symptoms and overall quality of life. Additionally, blood parameters, including inflammatory markers, will be analysed to explore physiological correlations.

Results: It is expected that a combination of nutritional interventions with psychological and lifestyle recommendations will lead to a reduction in subjective stress, an improvement of psychological wellbeing, and an overall enhancement in quality of life.

Conclusions: The findings of this pilot study will provide valuable insights into the effectiveness of nutritionbased interventions as a therapeutic approach in psychosomatic medicine. Furthermore, it will help refine the outpatient clinic's concept and serve as foundation for future research and the establishment of similar specialized clinics.

S15-1

Sarcopenia and Nutritional Status in Alzheimer's Disease: Implications for Muscle Function and Clinical Outcomes in Geriatric Psychiatry

Vesna Simič[1] (presenter), Polona Rus Prelog[1,2]
[1]University Psychiatric Clinic Ljubljana, Slovenia
[2]Medical Faculty, University of Ljubljana

Objective: Sarcopenia, the progressive loss of skeletal muscle mass and function, is increasingly recognized as a major determinant of frailty, morbidity, and reduced quality of life in older adults. In psychiatric populations—especially those with neurocognitive disorders such as Alzheimer's disease—sarcopenia remains critically under-recognized and underassessed, despite its substantial impact on clinical outcomes.

Methods: Our study presents data from a retrospective cross-sectional analysis of patients aged 65 and above admitted to a specialized gerontopsychiatry unit of the University psychiatric Clinic Ljubljana between 2020 and 2024. The dataset includes measures of nutritional status (body mass index (BMI), geriatric nutritional risk index (GNRI), muscle function (grip strength, gait speed), cognitive assessments (with Mini-Mental State Examination (MMSE), and clinical biomarkers. Sex, age, and psychiatric comorbidities were also evaluated as potential modifiers.

Results: The analysis revealed a high prevalence of sarcopenia, particularly among individuals with low BMI and significant cognitive decline. The condition was notably more frequent in women and in patients aged over 80. Cognitive impairment was strongly associated with both diminished muscle function and delayed recognition of nutritional deficits.

Conclusions: These findings underscore the importance of integrating sarcopenia screening protocols into routine psychiatric assessments for older adults, particularly those with neurodegenerative disorders. Early identification through simple functional measures could enable proactive, multidisciplinary interventions—potentially mitigating complications such as falls, hospitalization, and accelerated cognitive deterioration.

S15-4

Statin Use and Risk of Late-Life Depression in Community-Dwelling Older Adults: Evidence From a Target Trial Emulation Study

Gebiso Roba Debele[1,2], Mojtaba Lotfaliany[3], Rory Wolfe4, Michael Berk[3,4], Andrew M. Tonkin[5], Robyn L. Woods[5], Suzanne G Orchard[5], ARM Saifuddin Ekram[5], Anne M. Murray[6], Christopher M. Reid[5], Joseph Vanghelof[7], Joanne Ryan[5], Raj C. Shah[8], Sophia Zoungas[5], John J. McNeil[5], Mohammadreza Mohebbi[1, 9].

1. Deakin University, the Institute for Mental and Physical Health and Clinical Translation (IMPACT), School of Medicine, Geelong, Victoria, Australia.
2. Department of Public Health, College of Health Science, Mattu University, Mattu, Ethiopia.
3. Deakin University, IMPACT the Institute for Mental and Physical Health and Clinical Translation, School of Medicine, Barwon Health, Geelong, Victoria, Australia
4. Department of Psychiatry, Orygen, the National Centre of Excellence in Youth Health, and the Florey Institute for Neuroscience and Mental Health, University of Melbourne, Melbourne, Victoria, Australia.
5. School of Public Health and Preventive Medicine, Monash University, Melbourne, Victoria, Australia
6. Berman Center for Outcomes and Clinical Research, Hennepin Healthcare Research Institute, Hennepin Healthcare, Minneapolis, MN, USA
7. Rush Alzheimer's Disease Center, Rush University Medical Center, Chicago, IL, United States of America
8. Department of Family Medicine and Rush Alzheimer's Disease Center, Rush University Medical Center, Chicago, IL, USA
9. Biostatistics Unit, Faculty of Health, Deakin University, Geelong, Victoria, Australia

Background: Given the high non-response rates to antidepressants, current evidence highlights repurposing of existing medications. This study examines the association between statin use, and depression, with additional analysis based on statin lipophilicity.

Methods: The 19,114 ASPREE participants, aged over 70 years (over 65 years for USA minorities), were followed for a median of 8.3 years. We conducted a target trial emulation of statin users versus non-users, following a predefined protocol. The primary outcomes were depressive symptoms, defined by a validated tool (CESD 10) with scores of 8 or more, and the mental component of healthrelated quality of life as a secondary outcome. Time-updated statin use, accounting for changes in medication

status over time, was modelled using a marginal structural GEE after treatment balance was achieved through inverse probability of treatment weighting.

Results: Among the 19,110 eligible participants, 7,787 were statin users (5,219 lipophilic and 2,568 hydrophilic statins. Overall, 8,868 participants (46.4%) experienced at least one episode of depressive symptoms, with 5,269 (59.4%) recurrence. Statin use was associated with a 12% lower risk of depressive symptoms (RR: 0.88 [0.84, 0.92]). In subgroup analysis, lipophilic statins showing a significant reduction (RR: 0.88 [0.83, 0.93]), while hydrophilic statins had no significant association (RR: 0.94 [0.87, 1.02]).

Conclusion: Statin use was associated to a significantly reduced risk of late-life depression, with lipophilic statins consistently showing a protective effect, while hydrophilic statins not. These findings may be affected by prevalent user design and awaits confirmation through ongoing randomized clinical trials.

S15-5

Fat and Fiber Consumption, Sociocultural Factors Influencing Food Choices, and Sporadic Alzheimer's Disease in Alabama, USA, and Cape Town, South Africa

Daphne Spyropoulos

Gut-brain research, that focuses on the bidirectional connections of the gastrointestinal tract and the brain, has found increased concentrations of lipopolysaccharides, acetate, valerate, and proinflammatory cytokines, and decreased concentrations of butyrate in the gut of people with sporadic (type most affected by lifestyle) Alzheimer's disease. A high-fat and low-fiber diet contributes to this clinical presentation of the gut. In food deserts (areas with severely limited access to affordable fresh produce of nutritional quality), people consuming this type of diet would be expected to have a high prevalence of sporadic Alzheimer's disease. While this is the case for Alabama, the state with the highest mortality rate due to Alzheimer's disease in the USA, Cape Town in South Africa, also a food desert, has the lowest worldwide prevalence of the disease. To address this paradox, this study examined three research questions comparing the fat and fiber consumption of 375 participants from Alabama and 379 participants from Cape Town; sociocultural factors that might affect their nutritional decisions; and whether fat and fiber consumption was correlated with these sociocultural factors that influence food choices. Results showed that both Alabama, and Cape Town participants consume more fat than fiber in their diets, and that they make their food choices primarily based on their mood. The more fat participants consumed, the more likely they were to be making food choices based on the sensory appeal of the food in Alabama, and the less likely they were to do so in Cape Town.

S15-6

Assessing the Acceptability and Feasibility of Two Meal Provision Interventions for Individuals With Schizophrenia: The Schizophrenia, Nutrition and Choices in Kilojoules (SNaCK) Study

Donni Johnston[1,2], Hannah Mayr[1,4], Ingrid Hickman[1], Urska Arnautovska[1,2,3], Andrea Baker[3], Nicole Korman[1,2,3], Wolfgang Marx[5], Nicola Warren[1,2], Scott Teasdale[6], Dan Siskind[1,2,3]

1. Faculty of Health, Medicine and Behavioural Sciences, The University of Queensland, Brisbane, QLD, Australia
2. Metro South Addiction and Mental Health Service, Brisbane, QLD, Australia
3. Queensland Centre for Mental Health Research, Wacol, QLD, Australia
4. Department of Nutrition and Dietetics, Princess Alexandra Hospital, Brisbane, QLD, Australia
5. Faculty of Health, School of Medicine, Deakin University
6. Faculty of Medicine and Health, The University of New South Wales,Sydney, NSW, Australia

Objective: Poor diet is a cardiovascular disease risk factor in schizophrenia. The SNaCK study evaluated the feasibility of providing preprepared meals (PPs) and meal kits (MKs) to people with schizophrenia.

Methods: In a 12-week randomized controlled cross-over trial, 18 adults with schizophrenia/schizoaffective disorder were recruited from a recipes yielding seven meals/week), and supermarket voucher (control).

Acceptability was assessed with the Theoretical Framework of Acceptability; defined as (a) >70% of participants 'overall acceptability ?4 and b) sum of mean construct scores ?28 out of 35. Feasibility was measured by self-reported adherence (?half of meal eaten ?80% of days, MK recipes followed ?50% of the time), wastage (some meal uneaten ?25% of the time), and preparation difficulty (rated easy/moderate ?80% of the time).

Results: Both interventions were overall acceptable: 83% (PP) and 89% (MK); construct scores were 29 and 27, respectively. MK was preferred overall (mean 4.39 vs 3.83) but scored <4 for 'effort required' (3.17) and 'interference with routines' (3.39). Meal adherence was 62% for both MK and PP. MK recipes were followed 76% of the time. Wastage was higher in PPs (55%) than MKs (31%). Preparation was rated easy/moderate 85% of the time for MKs and 99.7% for PPs.

Conclusions: Both PP and MK met overall acceptability criteria and were feasible in

difficulty, with MK producing less wastage. Neither were feasible for meal adherence. These findings inform future dietary RCT designs.

S19-2

Level of HMGB1, S100β, and NSE Biomarkers in Patients With Depressive Symptom: A Meta Analysis

Ikbal Andrian Malau, M.Sc., Suet-Kei Wu, M.Sc., Kuan-Pin Su, MD., Ph.D.

Background: Major Depressive Disorder (MDD) is linked to neuroinflammation and changes in neuronal and glial functions. Microglia release inflammatory cytokines in response to MDD, with DAMPs like S100β and HMGB1 triggering further inflammation. This prolonged inflammation can damage neurons, reflected by elevated levels of neuronspecific enolase (NSE). S100β, HMGB1, and NSE in blood and CSF are potential markers for MDD progression. We aimed to compare these markers between depressed patients and non-depressed controls.

Methods: We conducted literature search up to September 5th, 2024 on 3 electronical databases including Pubmed, Embase, and Web of Science using keyword "S100b AND Depression" and "neuron specific enolase AND Depression" and "HMGB1 AND Depression". We included comparative studies, cross sectional studies, and case control studies. We excluded studies with irrelevant outcomes and subjects, and with no available full text. 20 eligible studies assessed the level of S100b marker, 6 eligible studies assess the level of NSE, and 3 eligible studies assessed the level of HMGB1. We retrieved data of level of biomarkers in mean standard deviation (SD) between two groups. We utilized Review Manager Version 5.4.1 software to analyze data.

Results: Our results showed that S100β levels were significantly higher in depressed patients compared to controls (SMD = 0.53, p = 0.004), with a more pronounced difference in plasma samples (SMD = 0.88, p = 0.03), suggesting plasma may be more sensitive to depression-related changes. In contrast, serum and CSF samples did not show significant differences. For HMGB1, plasma samples revealed significantly lower levels in depressed patients (SMD = -0.44, p = 0.02), while serum samples showed no significant difference. In NSE levels, CSF measurements indicated significantly higher levels in depressed patients (SMD = 1.20, $p < 0.0001$), while serum measurements showed no significant difference. Subgroup analysis of antidepressant use revealed that in the absence of antidepressants, S100β levels were significantly elevated (SMD = 5.17, $p < 0.00001$), while NSE levels were significantly elevated in the antidepressant group (SMD = 1.05, $p < 0.0001$).

Conclusions: This study highlights S100β as potential biomarker for MDD progression. Future research could explore their use in monitoring treatment effectiveness.

ORAL

S19-3

Investigation Into the Therapeutic Mechanism of a Ketogenic Diet in a Schizophrenia Neurodevelopmental Mouse Model

Alexis Hung[1,3], Donelle Rianne Dulalia[2], Zoltan Sarnyai[2], Severine Navarro[1,3]
[1]QIMR Berghofer Medical Research Institute, Australia
[2]James Cook University, Australia
[3]Centre for Childhood Nutrition Research, QUT, Australia

Objective: Schizophrenia is associated with significant metabolic dysregulation. The ketogenic diet (KD), characterised by high fat and low carbohydrate intake, has demonstrated therapeutic efficacy in schizophrenia. We aimed to elucidate the metabolic mechanisms underlying its beneficial effects.
Methods: The Maternal Immune Activation mouse model of schizophrenia was induced by Poly I:C injection on gestational day 9. Brains were collected at embryonic day 16, postnatal day 14, and adulthood (day 105). From day 70 until day 105, mice received either a KD or control diet. At day 105, metabolic analyses included RT-qPCR of metabolic genes (hydrocarboxylic acid receptor 2, insulin receptor, glucose, and monocarboxylate transporters) in anterior cingulate cortex and hippocampus, bulk RNAsequencing for differential gene expression, and targeted metabolomics on brain and serum samples. Behavioural tests (open field, dyadic social interaction, Y-maze, marble burying) assessing schizophrenia-like symptoms were conducted at day 98.
Results: Male schizophrenia-model mice showed significant neuronal developmental changes not observed in females, including downregulation of mitochondrial ROS pathways, impaired oxidative phosphorylation, decreased translation, and increased synaptogenesis. Metabolomics confirmed altered metabolism in both brain and periphery. The KD reversed behavioural abnormalities, normalised expression of key metabolic transporters and receptors, and restored metabolite profiles.
Conclusions: Our study provides important evidence of the neurodevelopmental basis of schizophrenia, identifying disrupted neuronal development and impaired oxidative phosphorylation from early life. Critically, metabolism was highlighted as a primary driver of pathogenesis. KD intervention effectively corrects bioenergetic deficits, reinforcing its potential as a therapeutic strategy for schizophrenia.

Please refer to the following QR code for abstract in Room 602, 603 and 605 on October 18

Oct. 18 Room 603 & 605
Abstract Boook

Oct. 18 Room 602
Abstract Boook

S23-1

Randomised Placebo-Controlled Trial Investigating the Efficacy and Safety of a Vitamin-Mineral Formula Targeting Irritability in Teenagers: The Balancing Emotions of Adolescents With Micronutrients (BEAM) Study

Julia J. Rucklidge, PhD Angela Sherwin, BSc Roger T. Mulder, MD, Joseph Boden, PhD

Objective: This study investigated the efficacy of micronutrients for teenagers with irritability and symptoms of Disruptive Mood Dysregulation Disorder (DMDD).

Methods: Teenagers (12-17 years) with moderate to severe irritability were randomized to micronutrients (n=67) or placebo (n=65) for 8 weeks. The study was delivered remotely with monthly online meetings with a psychologist. Primary outcome measures were the Clinical Global Impression (CGI-I), the Emotion Dysregulation Inventory-Reactivity (EDI), and Clinician-Rated Temper and Irritability Scale (CL-ARI-Total and CGI-S-DMDD).

Results: Linear mixed-effects modelling showed significant treatment effects on the CGI-I (p=0.012) and EDI (p=0.043). There were 33 (49.3%) responders in the micronutrient group and 25 (38.5%) in the placebo group. DMDD diagnosis and SES modified treatment response; those with DMDD and from lower SES families were more likely to respond to treatment. Among those with DMDD (n=30), 9 (64.3%) in the micronutrient group and 2 (12.5%) in the placebo group were responders.

DMDD teens reported significant improvement with micronutrients (42.9%) compared to placebo (6.3%). No significant group differences were found on the CL-ARI-total, but greater change was seen on the CGI-S-DMDD rating in the micronutrient group (p=0.001). Secondary outcomes showed greater improvement in parent-rated conduct disorder symptoms and prosocial behaviour in the micronutrient group. Diarrhoea was more common in the micronutrient group (20.9%) compared to placebo (6.2%). Both groups showed significant reduction in self-harm and suicidal ideation. Adherence was excellent.

Conclusions: Micronutrients are an efficacious and safe treatment for severe irritability, with significant reductions in suicidal ideation. Implementing these findings could improve psychiatric outcomes.

S23-3

Lifestyle Behaviours and Mental Health Problems During the Transition to the University: A Focus on Health Sciences Students

Vicent Balanzá-Martínez

The transition to the university is a risk period for major changes in lifestyle behaviours and the onset of mental health problems (MHPs). However, whether health sciences students (HSS) differ from other students in those outcomes remains uncertain.

The UNILIFE-M Cohort is a major international initiative (60 centres; n>20,000) aimed to explore these issues. First-year undergraduate students at the University of Valencia, Spain, completed an online survey with validated questionnaires assessing global lifestyles (U-SMILE), and five prevalent MHPs. Data from the baseline assessment were analysed.

The study sample consisted of 1,745 students (18.7+2.0 years;69.3% women). HSS (including nutrition, psychology, medicine, dentistry, nursing, pharmacy, physiotherapy) accounted for 47.0% of the sample. Mean total scores in the U-SMILE were higher in the HSS group compared to the non-HSS group (67.2+6.6 vs 66.0+7.3; p<0.0001). In addition, HSS had higher rates of positive screenings for anxiety (32.7%vs.27.9%; p=0.028). However, groups did not differ in positive screenings for depression (31.3%vs.32.4%; p=0.6), poor sleep quality (13.0%vs.14.1%; p=0.5), obsessive thoughts (18.0%vs.17.5%; p=0.8), and ADHD (24.2%vs.26.0%; p=0.4). Positive screenings for each MHP were associated with lower U-SMILE total scores (all, p<0.0001).

Consistent with previous evidence, this large, cross-sectional study suggests that university freshmen show substantial rates of MHPs. As a novel finding, pursuing a degree in health sciences appears to be associated with healthier lifestyles, but with higher odds of clinically relevant anxiety. Of note, students with any type of MHP have poorer lifestyles. Universities and healthcare systems must develop efforts targeting these problems, regardless of students' major.

S23-4

Relationship Between Diet and Mental Health in Children and Young Adults: Results of a Systematic Review and Meta-Analysis of Randomised Controlled Trials and Prospective Cohort Studies

Jessica E. Green MBBS MPM FRANZCP PhD, Rubén Fernández-Rodríguez BSc PhD, Rose Liu B MedSci MD, Caroline Wallace B.Sc. PhD, Farzaneh Asoudeh Bachelor of Nutrition Science and Master of Clinical Nutrition, Deborah Zhang B.Sc., Master of Edu in Psychology (Cognitive Neuroscience), Deborah N. Ashtree BSc MSc PhD, Samantha L Dawson Bachelor of Computer Science, Masters in Human, Nutrition, PhD, Adrienne O'Neil BA (Hons), PhD, Lisa Olive Bachelor of Applied Science, Honours (Psychology), Graduate, Certificate of Higher Ed. Learning & Teaching, Masters Clinical, Psychology, PhD, Marco Solmi MD PhD, Nicholas Fabiano MD, Felice N. Jacka BA PGDipSc PhD OAM, Wolf Marx BHlthSc MDietSt PhD

Background: Childhood and early adulthood present critical windows of neurodevelopment and dietary habit formation. Though diet is an established risk factor for mental disorders, the prospective impact of dietary patterns or interventions on later mental health outcomes has never been systematically evaluated in children and young adults. Thus, we conducted a systematic review and meta-analysis of prospective cohort studies and RCTs to evaluate the association of diet quality and/or patterns with mental health outcomes in individuals aged 0-25 years.

Methods: We searched MEDLINE, PsychINFO and EMBASE on 13/10/24. We assessed certainty using GRADE and risk of bias using National Institute of Health quality assessment tools.

Results: Thirty-three studies were included (k=14 cohort studies (n=114,355) and k=19 RCTs (n=2,052)). All cohort studies used different measures of diet quality, approximating "healthy" (k=8), "unhealthy" (k=3) or both (k=3). Sixteen different mental health outcomes were reported. Weak associations were reported between healthy diet and improved mental health outcomes in eight cohort studies. Preliminary meta-analyses of RCTs found no evidence for efficacy of gluten-free versus control diets in children with autism spectrum disorder (ASD) (k=3), nor for elimination versus control diets in children with attention-deficit hyperactivity disorder (ADHD) (k=4). Complete meta-analysis data for cohort and RCTs will be presented at ISNPR.

Conclusion: Our preliminary results suggest an association between "healthy" diets and improved mental health outcomes in children and youth. However, gluten-free

and elimination diets showed no benefit in ASD and ADHD, respectively. Though, high heterogeneity should be considered when extrapolating our findings.

S23-5

Process Evaluation of Online Lifestyle Therapy Versus Psychotherapy for Reducing Depression: Results From the CALM Randomised Non-Inferiority Trial

Lara K Radovic, BSc[1], Tayla John, RN MNP[1,2,] Deborah N Ashtree, PhD[1], Marita Bryan, BA MPH[1], Sophie Mahoney, MSc RD1, Dean Saunders, MSc EP[1], Megan Turner, PsyD[1], Lauren M Young, PhD[1], Tetyana Rocks, PhD,[1], Wolfgang Marx, PhD[1], Megan Teychenne, PhD[3], Pilvikki Absetz, PhD[4], Anna Chapman, PhD[5], Adrienne O'Neil, PhD[1], on behalf of the CALM Trial Team

1. Deakin University, IMPACT (the Institute for Mental and Physical Health and Clinical Translation), Food & Mood Centre, Geelong, VIC, Australia
2. Barwon Health, Geelong, VIC, Australia
3. Deakin University, Institute for Physical Activity and Nutrition (IPAN), School of Exercise and Nutrition Sciences. Deakin University, Burwood, Australia
4. Tampere University, Tampere, Finland
5. School of Nursing & Midwifery, Deakin University, Burwood, Australia

Background: Evidence from efficacy trials supports lifestyle interventions in reducing depressive symptoms, but their real-world effectiveness remains uncertain. Recently, we demonstrated the non-inferiority of a videoconferencingdelivered group-based lifestyle therapy, compared to psychotherapy, for reducing depressive symptoms in 182 adults with elevated distress during COVID-19 in Victoria, Australia. Here, we evaluate the implementability of this lifestyle intervention within Victorian public mental health.

Methods: Reach: 25% of invited health service consumers participated (n=26), with the remaining 156 participants recruited from the community (N=182). Women and high school graduates were overrepresented ($p<0.01$), and men were less likely to complete the trial (RR = 0.67; 95%CI [0.534, 0.852]). Completion rates were similar between arms.

Effectiveness: Lifestyle participants were more likely to report higher satisfaction (OR = 1.7; 95%CI [1.087, 2.662]) and understanding of material (OR = 2.1; 95%CI [1.251, 3.683]).

Implementation: High engagement was observed in 72% of sessions in both arms, with a structured and goal-oriented approach favoured for lifestyle, while psychotherapy featured more open-ended and abstract discussion.

Adoption: Clinicians (n=14) had positive attitudes towards lifestyle therapies, but cited funding, awareness, and training as concerns for wider adoption and maintenance.

Conclusion: With strong clinician interest and participant satisfaction, addressing adoption and sustainability challenges could enhance the implementability of lifestyle-based interventions in the Victorian public mental health system and beyond.

S23-6

Does Prenatal Diet Quality Influence Postpartum Mental Health Status? Interim Analysis From a Prospective Cohort Study

Caroline Wallace, PhD; Elyse Hodel, MSc; Amy Coughlan, BSc, Marie-Claude Audet, PhD

Background: Physiological and psychosocial changes experienced by women during the perinatal period may put them at risk for postpartum mental health disturbances. Accumulating evidence suggests that dietary patterns may influence mental health through the modulation of the gut microbiota and its effects on host immune activity.
Objectives: The present study aims to determine how dietary patterns and mental health symptoms fluctuate over pregnancy and postpartum and if diet quality during pregnancy predicts severity of postpartum depression and anxiety symptoms.
Methods: This is an interim analysis of 22 women participating in an ongoing prospective cohort study. Diet quality and mental health symptoms were determined at 20- and 33-week gestation and at 6- and 12-week postpartum. Diet quality was measured using the Healthy Eating Index (HEI) derived from the Diet History Questionnaire-III. Depressive and anxiety symptoms were measured using the Edinburgh Postnatal Depression Scale (EPDS) and the Perinatal Anxiety Screening Scale (PASS). Linear regression was conducted to examine whether HEI scores at 20 weeks of pregnancy predicted postpartum EPDS and PASS scores.
Result: Prenatal HEI score was a significant negative predictor of postpartum EPDS score ($p=0.027$), suggesting that higher prenatal diet quality at 20 weeks of pregnancy predicted less severe depressive symptoms at postpartum. In contrast, prenatal HEI score was not a predictor of postpartum PASS score ($p=0.286$).
Conclusion: Diet quality during pregnancy may predict postpartum depressive symptom severity. Future steps of the current study include increasing sample size and analyzing microbiota and immune markers to determine underlying mechanisms.

S24-0

Meeting Traditional Medicine and Mental Health: Experience From Korea and Taiwan

Jongwoo Kim

This thematic session explores the intersection of traditional medicine and mental health, highlighting cross-cultural approaches and empirical research from Korea and Taiwan. Four presenters will share their findings on the integration of traditional East Asian medical concepts with modern psychiatric assessments and interventions.

Prof. Jongwoo Kim will introduce the development of Korean Medicine clinical practice guidelines for mental disorders such as Hwabyung and autonomic dysfunction, emphasizing diagnostic methods and evidence-based traditional treatments. Dr. Hsien-Yin Liao will present psychometric validation data of the Chinese version of the Hwa-Byung Scale in Taiwan, evaluating its cross-cultural reliability and clinical applicability in anxiety and depression screening.

Dr. Seok-In Yoon will report on a randomized controlled trial assessing the effectiveness of Mindfulness and Qigong Training for Self-Healing (MQT-SH) in patients with both Hwabyung and depression. This study also explores the mediating role of “vitality” or qi as a mechanism of change. Lastly, Dr. Seung-il Lee will discuss outcomes of a digital mindfulness-based intervention for stress and burnout in office workers, offering insights into scalable mental health solutions rooted in traditional practice.

Together, this session provides a unique platform to discuss culturally grounded diagnostics and therapies, and how traditional medicine frameworks can contribute to modern mental health paradigms through rigorous clinical research and cross-national collaboration.

S24-1

Understanding Mental Disorders Based on Korean Medicine (Traditional Medicine)

Jongwoo Kim, Dr. Ph.D

Background:

Traditional medicine has a different perspective on mental disorders than modern medicine. Traditional medicine approaches diseases centered on the patient's suffering, considers the patient's characteristics, and has a social and cultural perspective in particular. Traditional medicine doctors are making efforts to include mental disorders in the currently utilized disease system, taking these characteristics of traditional medicine into consideration. The development of clinical practice guidelines can be one of such efforts.

Methods:

In order to establish the concept of traditional medicine disease as a clinical practice guideline, the following process is taken:

1. Investigation of clinical status of treatment in traditional medicine
2. Collection and review of evidence and comparison with diseases in the current diagnosis system (anger and mood disorder in the case of Hwabyung, cardiac neurosis in the case of autonomic dysfunction)
3. Development of diagnostic methods and tools utilizing the current diagnosis system
4. Development of treatment guidelines that synthesize evidence-based and clinical views.

Results:

1. Hwabyung is a mental disorder based on anger, and through comparative studies with depression, a diagnostic and assessment tool and an anger management program were developed, which led to the development of guidelines.
2. Autonomic dysfunction is a psychosomatic disorder based on the disharmony of yin and yang, and through comparative studies with cardiac neurosis, a diagnostic algorithm was developed, which led to the development of guidelines.

Conclusions:

In Korean medicine, treatment guidelines for Hwabyung and autonomic nervous system disorder are developed and used in clinical practice.

S24-2

Effectiveness of Mindfulness and Qigong Training for Self Healing in Patients with Hwabyung and Depressive Disorder: The Mediation Effect of Integrative Vitality

Seok In Yoon (Ph.D.), Hui Yeong Park (Ph.D.), Sun Yong Chung (Ph.D.), Jong Woo Kim (Ph.D)

Background:

Hwabyung is a Korean culture bound syndrome characterized by anger related physical and psychological symptoms. Depressive disorder is a common mental disorder that occurs worldwide and is highly comorbid with Hwabyung. In traditional East Asian medicine, both Hwa byung and depression are associated with an imbalance in vital energy termed qi. Mindfulness induces psychosomatic balance, and qigong facilitates the cultivation and regulation of qi, which may be effective treatments for Hwabyung and depression. This stu dy aimed to investigate whether Mindfulness and Qigong Training for Self Healing (MQT SH) could improve psychosomatic symptoms in patients with Hwabyung and depressive disorders.

Method:

This was a two arm, randomized controlled trial. Patients diagnosed with both Hwabyung and depressive disorder were included in the trial. A total of 64 participants were recruited and randomly assigned to the experimental group (n=32) or the control group (n=32). The experimental group received MQT SH for 6 weeks, while th e control group received no treatment.

Result:

MQT SH significantly reduced Hwabyung and depression, and increased subjective vitality. Physical vitality mediated the effect of MQT SH on Hwabyung, while psychological vitality mediated the effect of MQT SH on depression.

Conclusion:

This study demonstrated that MQT SH is an effective intervention for patients with Hwabyung and depressive disorders. In addition, this study demonstrated that 'Qi', a concept of traditional East Asian medicine, can be a mechanism for treating psychosomatic and mood symptoms.

S24-3

A Study on the Effectiveness of Mindfulness Based Digital Interventions on Stress, Burnout, and Work Engagement of Workers

Seungil Lee , Ph.D

Objective :
This study aimed to assess the effectiveness of a mindfulness based digital intervention on stress, burnout, and work engagement among office workers.
Methods :
A two arm randomized controlled trial was conducted with 99 office workers randomly assigned to either an experimental or control group. The experimental group received Mobile Mindfulness Trainin g (MMT) for four weeks, while the control group had no intervention during this period. For ethical reasons, the control group received MMT in the following four weeks. Assessments were performed at baseline, after four weeks, and at eight weeks, measuring burnout, work engagement, perceived stress, mindfulness, and vitality.
Results :
Significant improvements were found in the experimental group for burnout (MBI GS), perceived stress (PSS), and integrative vitality (IVS). However, there were no significant changes in work engagement (UWES) or mindfulness (CAMS R).
Conclusions :
Digital mindfulness meditation significantly reduced job burnout and perceived stress while enhancing vitality among office workers. The program, utilizing a new algorithm based on the MBDI app, demonstrates potential for managing stress, reducing burnout, and improving concentration in the workplace.

S25-0

Stress and Microglia

Keith W. Kelley, Ph.D.

Scientists in the field of psychoneuroimmunology explore the growing field of how the mind and body communicate with one another through the immune system with a focus on integrative health practices. In this preclinical symposium, Professor Marie-Eve Tremblay, Canada Research Chair at the University of Victoria, will describe recent nomenclature guidelines for microglia. She will discuss microglial diversity, including dark microglia, and highlight how chronic stress, sleep disturbances, infections and aging influence microglial states and their function. Insights into the outcome of maternal viral infection during pregnancy on neurodevelopment of offspring will be presented by Professor Adrienne Antonson at the University of Illinois Urbana-Champaign. She will describe how the stress of influenza A viral infections during pregnancy remodels the brain of offspring, leading to increased incidence neurodevelopmental disorders. The disruptive effects of chemotherapy on the gut microbiome with be highlighted by Professor Leah Pyter at The Ohio State University. Her team has established that a common chemotherapeutic drug (paclitaxel) induces systemic inflammation and leads to cognitive impairment. She has recently discovered that chemotherapy also causes disruptions in the gut microbiome of both mice and women. Professor Pyter has now linked changes in the gut microbial community with cognitive impairment in these patients. Professor Jacob Allen at the University of Illinois Urbana-Champaign will highlight new findings that show how psychological stress increases reactive oxygen radicals at the intestinal epithelial interface. These free radicals lead to microbial dysfunction and microbiota dysbiosis. Collectively, these new results presented by these four scholars emphasize the importance of brain-body communication during a variety of different forms of stress.

S25-1

The Role of the Gut Microbiome in Chemotherapy-Induced Nervous System Side Effects

Corena Grant, Ph.D., Kelley Jordan, B.S., Yonaida Valentine, M.S., Jeremy Beales, M.S., Leah Pyter, Ph.D., M.S.

My research program focuses on how neuro-immune communication contributes to the behavioral side effects of cancer and cancer treatments using rodent models and human subjects. The overall mission of my research program is to improve the quality of life and health of cancer patients and survivors. Due to the recent scientific advances of how the gut microbiome can influence the brain and behavior, our lab has been studying how chemotherapy impacts the microbiota-gut-brain axis. One of the primary gut-brain communication pathways we focus on is inflammatory signaling. We have compared how commonly-used breast cancer chemotherapeutics affect this axis, which led us to focus on a clinically-relevant mouse model of a common chemotherapeutic (paclitaxel). Paclitaxel shifted the gut microbiome coincident with increasing systemic and central inflammation and behavioral side effects (cognitive impairment, anxiety-like behavior). Next, transplanting this shifted microbial community into naïve mice was sufficient to drive inflammation (IL-1b, IL-6) and behavioral changes, supporting the hypothesis that the gut microbiome contributes to chemotherapy behavioral side effects. Finally, microbial community, circulating inflammatory mediators, and behavioral side effects were assessed in 77 women before, during, and after receiving chemotherapy to treat breast cancer. Similar to the mouse model, chemotherapy shifted their fecal microbial community, altered fecal and circulating gut metabolites (short-chain fatty acids), and increased peripheral nerve side effects (i.e., neuropathy). Specific changes in the gut microbial community and their metabolites correlated with neuropathy severity. Taken together, these results indicate that microbial-based interventions may be non-invasive new approaches to alleviate quality-of-life issues for cancer patients and survivors.

S25-2

From Brain to Gut: Mechanisms of Stress-Induced Microbiota Dysbiosis and Immune Dysfunction

Jacob M. Allen, Ph.D.

Our research program investigates how psychological stress impacts host-microbiota interactions, mucosal immune responses, and intestinal physiology. We aim to uncover mechanisms that link brain-derived signals to gut dysfunction and identify new strategies to prevent or treat stress-related inflammatory disease.

In our recent work, we identified a key mechanism by which social stress disrupts gut homeostasis. We found that activation of the sympathetic nervous system increases β-adrenergic signaling in the gut, which drives reactive oxygen species production at the epithelial surface. This redox response, marked by elevated DUOX2 and NOS2 expression, compromises barrier function, disrupts the gut microbiota, and primes the mucosa for inflammation. Inhibiting β-adrenergic receptors or NADPH oxidases reversed these effects and reduced disease severity in both infectious and chemically induced colitis models.

These findings highlight epithelial redox signaling as a critical link between stress and gut inflammation. They also position catecholaminergic pathways as promising therapeutic targets for mitigating stress-exacerbated intestinal disease.

Building on this work, we are now investigating how different types of stress activate distinct neural and hormonal circuits that influence epithelial and immune function. A key focus moving forward is to define how these brain-to-gut pathways shape susceptibility to disease and how they might be targeted to improve gut and immune health in individuals experiencing chronic psychological stress.

S25-3

The Roles of Dark Microglia in Health and Disease

Marie-Eve Tremblay, Ph.D.

Microglia are the immune cells of the central nervous system (CNS). They play essential roles which are important for CNS development, maturation, activity, plasticity and integrity, but also behaviour and cognition, across the lifespan. There is currently an exponential growth of microglial research pertaining to their roles, interactions with other CNS cells including neurons and astrocytes, and the underlying mechanisms. This work is increasingly revealing that microglia are diverse, comprised of different states which perform different functions. My lab is using complementary approaches assessing microglial metabolism, ultrastructure, morphology, and molecular signature to help unravel the outcomes of various environmental factors and lifestyle elements along the aging trajectory. My presentation will focus on recent nomenclature guidelines in the field, discuss microglial diversity, and present some of our work on the dark microglia, which are suggested to play a key role in remodeling of the brain. We recently found that dark microglia activate the integrated stress response, present a metabolic difference compared to other microglia, and contribute in a detrimental way to synaptic loss and neurodegeneration, suggesting novel targets for therapeutic intervention.

S25-4

Priming During Pregnancy: How Maternal Viral Infection Regulates Transplacental Trafficking, Fetal Brain Macrophage Function, and Cortical Development

Adrienne M. Antonson, Ph.D.

Epidemiological studies link influenza A virus (IAV) infections during pregnancy with increased incidence of offspring neurodevelopmental disorders, yet preclinical models using live IAV are limited. We utilize a clinically translatable mouse model of seasonal IAV infection during pregnancy to unravel the innate and adaptive immune responses coordinating fetal neuropathology. Notably, fetal brain cortical thinning, which sets the stage for altered behaviors later in life, is observable following high- but not moderate-dose IAV challenge. Dose-dependent responses are also apparent at fetal brain borders, where bloodborne molecules like fibrinogen leak into subventricular zones and meningeal macrophages accumulate in larger numbers. These features coincide with increased markers of microglial activation across the whole fetal brain. Tracer experiments indicate that maternally derived large molecules trespass placental barriers and access the fetal compartment more readily during severe infection. Overall, we provide consistent evidence of an infection severity threshold for virus-induced fetal brain and placental abnormalities, which recapitulates a key feature of the epidemiological data whereby offspring psychiatric risk intensifies with increasing severity of maternal disease. This work aims to further our understanding of the prenatal immune origins of long-term mental health disorders.

S26-0

Blind Spots in Nutritional Psychiatry Research

Annabel Mueller-Stierlin

Nutritional Psychiatry Research (NPR) has emerged as a promising field, yet key psychological and social factors remain underexplored. This symposium aims to highlight these blind spots, focusing on two critical issues: disordered eating and food insecurity, both of which have significant implications for mental health.

Annabel Mueller-Stierlin will introduce NPR and outline its current blind spots, emphasizing the neglected psychological and social aspects. Katie Dalton will discuss the intersection of disordered eating and severe mental illness (SMI), exploring its implications for individuals with SMI. Anu Rusuunen will present a real-world case examples to illustrate the challenges individuals face. Scott Teasdale will introduce new projects addressing the role of food insecurity in mental health settings, and Kevin Williamson will provide another case example to highlight the role of food access for mental health.
A 30-minute plenum discussion will follow, focusing on the need for NPR to incorporate these overlooked factors.

This session calls for a shift in NPR, urging a deeper understanding of the social and psychological determinants that influence dietary behaviors and mental health outcomes.

S26-1

An introduction to Blind Spots in Nutritional Psychiatry Research

Annabel Sandra Mueller-Stierlin, PhD

Background:
Nutritional Psychiatry Research (NPR) investigates the connection between diet and mental health, but psychological and social factors remain rather underexplored. This presentation outlines the current blind spots in NPR, emphasizing the overlooked psychological and social aspects that influence mental health outcomes.
Method:
As a starting point, findings from a bibliometric analysis and the current discussions within the NPR community will be presented.
Result:
These highlight a significant focus on the physiological aspects of NPR, including brain chemistry and metabolic processes, with minimal attention to psychological or social factors. Studies addressing disordered eating, food insecurity, and socioeconomic influences on nutrition are rare. This gap highlights the need for a more holistic approach to understanding how social determinants and psychological conditions impact dietary behaviors and mental health.
Conclusion:
The findings underscore the need to expand NPR to include psychological and social dimensions. Incorporating these factors into research is essential for developing comprehensive, real-world interventions that effectively address both the biological and socio-psychological challenges in mental health and nutrition.

S26-2

Disordered Eating in Severe Mental Illness: An Overlooked Barrier to Nutritional Interventions and Mental Health Recovery

Katie Dalton, MNutrDiet, Accredited Practising Dietitian, PhD Candidate;
Anu Ruusunen, PhD, Registered Dietitian

Disordered eating (DE) is highly prevalent among people living with severe mental illness (SMI), yet it remains a commonly overlooked physical and psychosocial health barrier in both mental health care and Nutritional Psychiatry Research (NPR). DE in SMI exists on a broad spectrum—ranging from binge eating, dietary restriction, and compensatory behaviours to body image preoccupation—often emerging in the context of antipsychotic-induced weight gain, weight stigma, and trauma history. These behaviours interact with both physical and mental health, impacting medication adherence and recovery trajectories.

This presentation draws on recent research conducted within an Australian public mental health service, including incidence rates, clinician and service user perspectives, and observed relationships between DE and medication adherence. In addition, it will incorporate real-world case vignettes from a European context to illustrate the global relevance of these challenges.

Key challenges, clinical considerations, and research gaps will be discussed, with a focus on developing NPR interventions that are trauma-informed, weight-inclusive, and sensitive to DE-related barriers.

By adopting an international lens, this presentation will highlight the universality of this critical gap in NPR. Without systematically addressing disordered eating, we risk not only diminishing the effectiveness of nutrition-based interventions but also exacerbating harm among already vulnerable populations.

S26-3

Nutritional Psychiatry: An Appetite for Dietary Change? Food and Eating Behaviours Are Only a Part of the Process

Scott Teasdale, PhD, BNutrDiet, Accredited Practising Dietitian, Kevin Williamson, PhD; MMedSci

Background:
Nutritional psychiatry and the integration of the Nutrition Care Process (NCP) into clinical and research settings are gaining recognition globally for their potential to support the mental and physical health of individuals living with serious mental illness (SMI). However, effective dietary intervention requires consideration of broader psychosocial aspects. One critical but often under-addressed dimension is the role of food access and food insecurity—factors that significantly shape dietary intake and limit the feasibility of dietary change in this population.

Method:
This presentation provides a descriptive and critical evaluation of a real-world case series with a focus on psychosocial challenges, incorporating dietary data and patient histories from individuals with SMI in the U.K. Further, advancements on food insecurity work (prevalence data, experience and impact data, and co-design work) from Australia will be presented.

Results:
The findings illustrate that beyond traditional nutrition assessment domains, key barriers to implementing the NCP include food insecurity, housing instability, limited income, and reliance on institutional or convenience food systems. These factors influence both the quality of dietary data collected and the patient's ability to adhere to nutrition recommendations, ultimately shaping dietary change outcomes.

Conclusion:
This presentation underscores the urgent need to integrate social determinants of health—particularly food access and food insecurity— into the design and delivery of nutritional therapy for people with mental illness. Addressing these factors within the NCP framework is essential not only for improving data quality but also for enhancing patient engagement and achieving meaningful, sustainable outcomes in nutritional and mental health care.

S27-1

Fruits for the Mind: In-Vitro Evidence of Antioxidant and Neuroprotective Effects of Phenolic and Betalain Compounds

Julianna Lys Neri[1], Karen Charlton[1], Katrina Weston-Green[1]

[1]Molecular Horizons and School of Medical, Indigenous and Health Sciences, Faculty of Science, Medicine and Health, University of Wollongong, Wollongong, NSW 2522, Australia

Objective: This study investigated the neuroprotective effects of fruit extracts rich in phenolics and betalains, examining their phytochemical composition, antioxidant capacity, and ability to counteract oxidative stress. It also aimed to identify novel plant-based sources of bioactive compounds relevant to brain health.

Methods: Extracts from dragon fruit (DF), jaboticaba (JB), green apple (GA), blueberry (BlueB), blackberry (BlackB), watermelon (WM), and apricot (AP) were analyzed for phenolics, flavonoids, anthocyanins, and betalains. Antioxidant capacity was measured using the ORAC assay. Neuroprotective effects were assessed in SH-SY5Y neuroblastoma-like cells exposed to hydrogen peroxide (H_2O_2). Cells were treated with fruit extracts (10–100 µg/mL) either before (preventive) or after (therapeutic) H_2O_2 exposure, and viability was measured using the MTT assay. Statistical analyses included ANOVAs with Tukey post-hoc tests and Spearman's correlation.

Result: Queen Garnet plum (QGP) and BlueB had the highest phenolic and anthocyanin levels ($p < 0.01$), while QGP also had the most flavonoids. DF showed the highest betalain content and antioxidant capacity ($p < 0.001$ and $p < 0.01$, respectively). Pre-treatment with DF and JB preserved cell viability ($p > 0.05$ vs controls), while GA offered partial protection ($p < 0.01$). Post-treatment with DF, JB, or GA failed to reverse H_2O_2-induced damage. Cell viability correlated with ORAC ($r^2 = 0.695$, $p < 0.001$) and betalains ($r^2 = 0.446$, $p < 0.05$).

Conclusion: DF emerged as a promising neuroprotective candidate, likely due to its antioxidant and betalain content. A clinical trial in individuals with obesity is underway to explore translational effects on cognition and oxidative stress (UOW HREC 2024/168).

S27-2

Navigating the Landscape of Plant-Based Diet Quality and Depression Research

Megan Lee[1,2], Talitha Best[2]

[1] Bond University, Australia.
[2] NeuroHealth Lab, Appleton Institute, Central Queensland University, Australia

Objective: Evidence around the role of plant foods for reducing the risk of depressive symptoms has often been subject to limited consensus. We will discuss the landscape of systematic reviews, umbrella reviews, longitudinal, cross-sectional data, and qualitative focus groups conducted by our research team to provide more detailed context for exploring higher prevalence of depressive symptoms in those adhering to plant-based dietary patterns.

Methods: Umbrella review of nine meta-analyses and systematic reviews of plant vs meat-based diet and depression; two cross-sectional surveys of vegan, vegetarian and omnivore diet quality and depressive symptoms; one longitudinal analysis of plant-based vs omnivore diet quality and depressive symptoms; one cross-sectional survey of 'vegetarians for life'; 27 interviews with vegan men.

Result: The umbrella review showed conflicting findings for the prevalence? Intensity? depressive symptoms in vegan and vegetarian dietary followers. The cross-sectional surveys suggest that despite being plant-based or omnivore, diet quality was a significant factor with depressive symptoms. This finding was supported by longitudinal analysis and a cross-sectional survey in a population that had been plant-based their whole adult lives. Interviews with vegan men uncovered other factors for the increased rates of depression for plant-based dietary followers including social identity, social connectedness, and ethical considerations such as sensitivities to animal cruelty and environmental sustainability.

Conclusion: While studies in nutritional psychiatry suggest that eating a diet rich in plant foods is associated with lower risk of depressive symptoms, the extant literature suggests that vegan and vegetarians have a higher prevalence of depressive symptoms. Our studies suggest that this may be due to other factors such as quality of the plant-based diet (lower in ultra-processed foods), social connectedness, social identity, and sensitivities to animal cruelty and environmental sustainability.

S27-4

Gene–Dietary Pattern Interactions and Their Associations With Depression Among Malaysian Adults on a Plant-Based Diet

Yuan Kei Ching (MSc)[1], Yit Siew Chin (PhD)[1], Mahenderan Appukutty (PhD)[2], Yoke Mun Chan (PhD)[3]

[1] Department of Nutrition, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, UPM Serdang 43400, Selangor, Malaysia

[2] Programme of Sports Science, Faculty of Sports Science and Recreation, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia

[3] Department of Dietetics, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, UPM Serdang 43400, Selangor, Malaysia

Background: The pathogenesis of depression may include complex interactions between diet and genes. The present study aimed to determine the direct associations of dietary patterns (DPs) and rs174547 FADS1 gene on depression, as well as the moderating effect of rs174547 FADS1 gene on the association between DPs and depression.

Methodology: A total of 217 respondents were recruited from Malaysia. Data on socio-demographic characteristics and lifestyle were collected. A total of 3ml fasting blood samples were used for genotyping analysis. Dietary patterns were identified using principal component analysis and depression was measured using the Depression, Anxiety and Stress Scale (DASS-21). Multiple logistic regression was used to determine the associations of the DPs and rs174547 FADS1 gene with depression, as well as to determine the interactions between the rs174547 FADS1 gene and DPs on depression under the genetic additive model.

Result: The prevalence of depression was 18.0%. A total of four DPs were identified, which accounted for 51.36% of DPs variations. Respondents at T3 intake of the vegetable and fruit DP had a lower risk of depression (p<0.001). Vegetable and fruit DP significantly interacted with the rs174547 *FADS1* gene on depression, particularly among individuals with the TT genotype at T3 intake (OR: 0.65; 95% CI: 0.13–0.76; $p_{interaction}$ = 0.027).

Conclusion: This study found that the vegetable and fruit DP was associated with a lower risk of depression. The moderating role of the rs174547 *FADS1* gene highlights the potential of gene–diet interactions in advancing personalised approaches within nutritional psychiatry.

S27-5

Exploring the Association Between Ultra-Processed Food Intake and Cognitive Function: A Prospective Cohort Study Using UK Biobank

Farzaneh Asoudeh, MSc[1], Sarah Gauci, PhD[1], Dulari Hakamuwa Lekamlage, PhD[2], Deb Junyi Zhang, MEd[1], Elizabeth Gamage, PhD[1], Melissa M. Lane, PhD[1], Felice Jacka, PhD[1], Wolfgang Marx, PhD[1]

[1] Food and Mood Centre, Institute for Mental and Physical Health and Clinical Translation

[2] Institute for Mental and Physical Health and Clinical Translation (IMPACT), School of Medicine, Deakin University, Geelong, VIC, Australia

Objective: Dementia cases may reach 152 million by 2050, with cognitive decline playing a major role. High ultra-processed food (UPF) intake shows a positive association with poorer cognition, but evidence remains limited, particularly across regions. This study investigates the prospective association between UPF intake and cognitive function using UK Biobank data.

Methods: Participants aged 40–69 years from the UK Biobank cohort (baseline: 2006–2010) who meet the inclusion criteria and have no history of dementia will be included. Cognitive function will be assessed using selfadministered tests—reaction time, numeric memory, fluid intelligence, prospective memory, and pairs matching—conducted at baseline and the most recent time-point. A global cognitive function score will be generated as a proxy for overall cognition. Dietary intake will be evaluated using at least two Oxford WebQs, 24-hour dietary recalls completed between 2009 and 2012, with foods classified according to the Nova classification system. Mixed-effects models will be used to examine the association between UPF intake—measured as a percentage of total energy intake or grams consumed per day—and changes in global cognitive function or specific cognitive domains, adjusting for relevant confounders.

Results: This analysis will include approximately 120,000 participants who completed at least two 24-hour dietary recalls and one of five cognitive function tests at baseline. The study is ongoing, and the results will be analysed and presented at the conference.

Conclusions: The findings will contribute to the field of nutritional psychiatry and support the development of evidence-based guidelines for healthy ageing.

S27-6

Plant-Based Diets and Mental Health Outcomes: A Systematic Review With Meta-Analysis

Bruno Bizzozero-Peroni [1,2,3], Valentina Díaz-Goñi [1], Rubén Fernández-Rodríguez [4,5],*, Vicente Martínez-Vizcaíno [1,6], Estela Jiménez-López [1,7], María Eugenia Visier-Alfonso [1], Miriam Garrido-Miguel [1,8], Arthur Eumann Mesas [1]

[1] Health and Social Research Center, Universidad de Castilla-La Mancha, Cuenca, Spain
[2] Aging Research Center, Department of Neurobiology, Care Sciences and Society, Karolinska Institutet & Stockholm University, Stockholm, Sweden
[3] Higher Institute of Physical Education, Universidad de la República, Rivera, Uruguay
[4] Department of Physical Education and Sports, Faculty of Sports Science, Sport and Health University Research Institute (iMUDS), University of Granada, Granada, Spain
[5] Food & Mood Centre, Institute for Mental and Physical Health and Clinical Translation (IMPACT), Deakin University, Geelong, Australia
[6] Facultad de Ciencias de la Salud, Universidad Autónoma de Chile, Talca, Chile
[7] Centre for Biomedical Research Network on Mental Health, Instituto de Salud Carlos III, Madrid, Spain
[8] Faculty of Nursing, Universidad de Castilla-La Mancha, Albacete, Spain.

Objective: Emerging evidence suggests that the quality of plant-based diets may play a pivotal role in the primary prevention of certain non-fatal diseases. However, its impact on mental disorders remains to be elucidated. Therefore, we aimed to synthesize the available evidence on the cross-sectional and prospective associations of adherence to overall, healthy, and unhealthy plant-based diets with mental health outcomes in the general adult population (≥18 years).
Method: databases were searched from inception through March 13, 2024. PRISMA and MOOSE guidelines were followed. Random-effects meta-analyses were performed using the Sidik-Jonkman estimator. Pooled odds ratios (ORs) and risk ratios (RRs) with their 95% confidence intervals (CIs) were estimated for cross-sectional and prospective associations between the highest (vs. lowest) adherence to plant-based diets and the likelihood of adverse mental health outcomes (i.e., anxiety, depression, psychological distress, cognitive decline, and dementia).
Result: A total of 23 studies involving 709,703 adults (mean age range: 31–102 years, 53% female) were included. The highest (vs. lowest) adherence to healthy plant-based

diets was significantly associated with a lower likelihood of anxiety (OR=0.67,95% CI:0.46–0.96), depression (OR=0.74,95% CI:0.57–0.96), and psychological distress (OR=0.51,95% CI:0.39–0.65) in cross-sectional studies and with a lower risk of cognitive decline (RR=0.74,95% CI:0.64–0.85), dementia (RR=0.85,95% CI:0.76–0.96) and depression (RR=0.77,95% CI:0.67–0.88) in cohort studies. Conversely, greater adherence to unhealthy plant-based diets was significantly associated with an increased likelihood of anxiety and depression.

Conclusions: High-quality plant-based diets could play an important role in the primary prevention of mental disorders.

S28-1

Adherence to a Healthy Nordic Diet Is Associated With a Lower Prevalence of Depressive Symptoms

Johanna Roponen[1], Jyrki K. Virtanen[1], Timo Partonen[2], Pilvikki Absetz[3], Sari Hantunen[1], Tomi-Pekka Tuomainen[1], Outi Nuutinen[1], Tommi Tolmunen[1,4], Anu Ruusunen[1,5,6]

[1] University of Eastern Finland, Finland
[2] Finnish Institute for Health and Welfare, Finland
[3] Tampere University, Finland
[4] Kuopio University Hospital, Finland
[5] Wellbeing Services County of Northern Savo, Finland
[6] Deakin University, Australia

Objective: The relationship between Nordic diet and the risk of depressive symptoms is not well-documented. This study aimed to investigate whether a healthy Nordic diet is associated with depressive symptoms.

Methods: This cross-sectional study included 2603 participants aged 42-60 years from the Kuopio Ischaemic Heart Disease Risk Factor Study. Self-reported methods were used to assess dietary intake (4-day food diary) and depressive symptoms (Human Population Laboratory, HPL). The quality of the diet was evaluated using a healthy Nordic diet score derived from food diaries. Statistical analysis involved using Quade ANCOVA to examine the mean values of HPL scores across quartiles of a healthy Nordic diet score.

Results: Participants' mean age was 53 years, and BMI was 26.8 kg/m2; 31.7% were current smokers, and 86.9% were married or living as a couple. The mean healthy Nordic diet score was 12.8 (SD 4.0, range 2-25), and the mean HPL score was 1.9 (SD 2.1, range 0-13). Lower adherence to a healthy Nordic diet score was associated with higher HPL scores after adjusting for age, examination year, energy intake, leisure-time physical activity, adulthood socioeconomic status, smoking, and marital status. The difference between the extreme quartiles was 0.33 points, 95% CI 0.10–0.56, p for trend across the quartiles=0.003.

Conclusions: The findings support the hypothesis that lower adherence to a healthy Nordic diet increases the odds of having depressive symptoms. However, prospective and intervention studies are needed to confirm this and to test whether modifying diet can lead to changes in depressive symptoms.

Conclusions: High-quality plant-based diets could play an important role in the primary prevention of mental disorders.

S28-2

The Role of a Modified Mediterranean Diet in Reducing Symptoms of Mood Disorders: A Randomised Control Trial

Angela Gilmour - Bachelor of Psychology (Honours) (Bond University), Megan Lee (Bond University), Shawna Campbell (Bond University), Gaelle Brotto (Bond University), Amanda Smyth, Holly Hoskins

Objective: This study investigated the causal role of transitioning from a typical Western dietary pattern to a modified Mediterranean dietary pattern on symptoms of depression and anxiety. With over 350 million people worldwide experiencing mood disorders, current treatments are only effective for a third of affected individuals, emphasising the need for complementary approaches.

Methods: A two-stage methodology will be used. Stage 1 will analyse previously collected data (N>200) from the Mood Food intervention website to pilot the intervention. Stage 2 involves recruiting 130 participants for a 12-week randomised controlled trial. Participants will be allocated to a 6-week intervention, 12-week intervention, or waitlist control groups. Dietary quality, psychological distress, and symptoms of depression and anxiety will be evaluated using validated measures (e.g., MDAS, K-10, CSED-20). Data will be analysed using a mixed-design MANCOVA to evaluate the impact of dietary changes on mood disorder symptoms.

Results: Preliminary analyses of pilot data indicate potential benefits of improved dietary quality on mood. Post-intervention findings from the randomised control trial will help support current intervention findings, that transitioning to a modified Mediterranean diet reduces symptoms of depression and anxiety.

Conclusions: Establishing a causal relationship between diet and mood disorders could enhance mental health policy and practice by promoting dietary changes as a cost-effective, accessible intervention. This research aims to support the two-thirds of individuals who do not respond to existing treatments, contributing to the growing field of nutritional psychiatry.

S28-3

Experiences of Trauma, Vitamin B6 Status, and Symptomatic Depression

Luis m. Falcon[1], Katherine L. Tucker[1]
[1]University of Massachusetts Lowell, USA

Objective: Depression is one of the most common disabling diseases, particularly among individuals who have experienced trauma. Therefore, it is important that we understand any modifiable factors that could lower this risk. Vitamin B6 is a nutrient that has been associated with depression and is important for the synthesis of neurotransmitters that have a role in mood regulation and stress response.
Methods: We hypothesized that a Lifetime General Trauma severity scale (GTS, 0-17) would be associated with depressive symptomatology (Centers for Epidemiology Scale for Depression, CES-D) among 491 Puerto Rican adults (aged 49-81 y) living in the greater Boston area; and further, that vitamin B6 status (pyridoxyl 5' phosphate) would be associated with lower risk among those with more trauma, Data were analyzed in SPSS with multivariable regression models, adjusting for age, sex, and education (< 8th, 8th – high school, at least some college).
Results: The direct association between the GTS and CES-D score was strong (b= 1.13; 95%CI 0.87,1.37; P= 0.001), as was the protective association between log transformed PLP and CES-D score (b= -1.09; 95%CI -2.15,-0.03 ; P= 0.044). However, unlike our hypothesis, the interaction between GTS and PLP was not apparent (b= 0.078; 95%CI -0.27, 0.43; P= 0.66).
Conclusions: Vitamin B6 appears to be important regardless of the level of trauma. Further research should test the ability of vitamin B6 from dietary intake and/or supplements to reduce depressive symptomatology.

S28-4

A Novel Ayurvedic Therapy and Nutrition for the Treatment of Major Depressive Disorder

Kaviraja Udupa*[1], MD, PhD, Jismi VS[1,2], MD, Kishore KR[2], MD, PhD, Shivarama Varambally[2,3], MD, PhD, DSc, Arun Ravindran[4], MD, PhD, Sathyaprabha TN[1] MD, PhD, DSc

Dept. of Neurophysiology[1,] Integrative Medicine[2], Psychiatry[3], National Institute of Mental Health and Neuro Sciences (NIMHANS), Hosur Road, Bangalore India 560 029; [4]Departments of Psychiatry & Pharmacology and Toxicology, University of Toronto, Cambell Family Mental Health Research Centre, Centre for Addiction and Mental Health, Toronto

Background: In spite of recent advancements with antidepressant treatments, many depression patients exhibit suboptimal response and frequent relapse. Furthermore, significant adverse effect burden often leads to poor adherence. This has led many patients to seek and use nutrition and lifestyle interventions as alternative therapies. This study was conducted to evaluate the efficacy and tolerability of the Ayurvedic compound (Jatamansi), an herbal root extract used in Ayurveda for the treatment of MDD, and to understand the possible mediating mechanisms of such benefit.

Methods: The study utilized a double-blind placebo controlled design. MDD patients (n=60) who had received Escitalopram over 2 months and who experienced partial or non-response were randomized to receive Jatamansi and an Ayurvedic diet (pathya) regimen (group A (n=30)), or placebo (group B (n=30)) for 8 weeks. MDD symptoms were assessed using the Hamilton depression rating scale (HDRS) and serum brain-derived neurotrophic factor (BDNF) were measured at baseline and at the end of the study, following the 8-week treatment.

Results: Group A showed significantly greater reduction in depressive symptoms (HDRS change of 21.8±1.3 to 12.2±2.4) compared to those receiving Escitalopram and placebo, (HDRS: 21.8±1.4 to 19.2±1.6) ($p<0.001$). This was paralleled by a significant increase in serum BDNF levels in group A, compared to the placebo group.

Conclusion: The results provide preliminary evidence for the benefit of Jatamansi extract + diet and added to first-line antidepressant in optimizing response in MDD. The changes in neurobiological markers were noted to parallel the clinical change. It is suggested that Jatamansi + Ayurvedic diet may be useful for managing depressed patients who are not exhibiting optimal antidepressant response.

S28-5

Adherence to MIND Diet and Risk of Recurrent Depressive Symptoms: Prospective Whitehall II Cohort Study

Akbaraly TN, PhD, Arshad H, PhD, Recchia D, PhD, Head J, PhD, Holton K, MD PhD, Norton J,PhD Kivimaki M, Prof

Background: Several diet quality indices have been shown to be associated with depression, but none of them have been specifically designed for depressive disorders. The MIND diet (which stands for Mediterranean-DASH Intervention for Neurodegenerative Delay) has been proposed to predict age-related cognitive outcomes and we aimed to assess its association with long-term recurrent depressive symptoms (DepS) in a pre-elderly cohort.

Method: Analyses carried out on the 4884 British civil servants (73% men, mean age=61±5.9 y) from the Whitehall II cohort with data on MIND diet scores (derived from a validated 127-item food frequency questionnaire) and repeated DepS assessments (score?16 to the Center for Epidemiologic Studies Depression Scale or use of anti-depressive drugs). DepS recurrence was defined as having DepS in at least two of the four repeated measurements over the 13 years of followup, and occurred in 13.3 % of participants.

Result &Conclusion: Participants with highest adherence to MIND diet had 26% lower odds of experiencing recurrent DepS compared to those in the lowest tertile (OR=0.74; 95% CI:0.58-0.93), independently of socio-demographic, lifestyle, health-related factors, including prevalent cognitive impairment, DepS antecedents the use of vitamins/other food supplements. Independent associations were observed for green leafy vegetables (OR=0.59, 95% CI:0.45-0.78), other vegetables (OR = 0.43, 95% CI:0.24-0.77), and berries (OR=0.74, 95% CI:0.61-0.89). Further studies are required to examine the reproducibility of our findings and the underlying mechanisms to establish a consensus on the effects of the MIND diet on depression.

S28-6

Hype or Hope? A Ketogenic Diet as an Adjunctive Treatment in Treatment-Resistant Depression (DIME): A Randomised Controlled Trial

Min Gao[1,2*], Megan Kirk[1,2], Heather Knight[1], Eva Lash[1,2], Moscho Michalopoulou[1], Nicola Guess[1,6], Richard Stevens[1], Michael Browning[3,4], Scott Weich[5], Philip W J Burnet[3], Susan A Jebb[1,2,6], Paul Aveyard[1,2,6]

[1] Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK
[2] NIHR Oxford Health Biomedical Research Centre, Warneford Hospital, Oxford, UK
[3] Department of Psychiatry, University of Oxford, Oxford, UK
[4] Oxford Health NHS Foundation Trust, Oxford, UK
[5] Sheffield Centre for Health and Related Research (SCHARR), University of Sheffield, Sheffield, UK
[6] NIHR Oxford University Hospitals Biomedical Research Centre, John Radcliffe Hospital, Oxford, UK

Background: Preclinical evidence and case reports suggest potential therapeutic benefits of ketogenic diets (KDs) in the treatment of depression, but evidence from well-controlled randomised controlled trials (RCTs) is lacking. We aimed to assess the efficacy of a KD compared with a control diet in adults with treatment-resistant depression (TRD).

Method: Participants aged 18-65 years with TRD and scoring ? 15 on the Patient Health Questionnaire [(PHQ)-9]) were randomised 1:1 to one of two 6-week dietary interventions: 1) KD of pre-prepared foods providing <30g carbohydrates/day with weekly individual dietetic support or 2) a control (Phyto) diet with vouchers to purchase one extra serving of vegetables or fruit and replace saturated fats with unsaturated fats, with equal dietetic support. The last follow-up was at 12 weeks. The primary outcome was the change in PHQ-9 score from baseline to week 6. Secondary outcomes included depression remission, anxiety, anhedonia, cognitive impairment, quality of life, and functional outcomes (NCT06091163).

Result: Between Feb 22, 2024, and June 15, 2024, 88 participants were randomised equally to KD or Phyto diet group. Depression severity was reduced markedly in both groups. The average between-group difference at 6 and 12 weeks was -2·18 (95% CI -4·33 to -0·03; p=0·047; Cohen's d -0·68, 95% CI -1·35 to -0·01) and -1·85 (95% CI -4·04

to 0·33; p=0·096; Cohen's d -0·58, 95% CI -1·26 to 0·10), respectively. There was no evidence of a difference in secondary outcomes between groups. No serious adverse events occurred.

Conclusion: The KD showed antidepressant benefits compared to a well-matched control group. However, the clinical relevance is uncertain, as the average effect was modest and not evident in secondary or per-protocol analyses.

S29-0

Advancing Clinical Practice in Nutritional Psychiatry: A Global Approach

Tetyana Rocks

The field of Nutritional Psychiatry continues to grow; however, a significant gap exists between the evidence, clinical guidelines, and actual practice. This gap is exacerbated by clinicians' lack of knowledge and confidence in applying nutritional interventions, leading to missed opportunities for improving mental and physical health outcomes through diet. This symposium will address these challenges by bringing together researchers, clinicians, and educators from around the world. By sharing their diverse experience, they will explore how to bridge the divide between cutting-edge research and its implementation in clinical practice. Presentations will explore the barriers to integrating the principals of Nutritional Psychiatry in routine mental health care, particularly the lack of clinical training and hesitancy in adopting novel approaches in treatment protocols.

The symposium will highlight strategies for advancing clinical practice, with presenting experts sharing insights on how to translate this knowledge into actionable, accessible, and applicable interventions across global healthcare settings. Additionally, the event will explore the importance of building communities of practice, fostering collaboration among professionals, and providing educational resources to enhance clinician confidence.

Through a global lens, we aim to empower and motivate the audience to advance clinical practice in Nutritional Psychiatry.

S29-1

A Co-Produced Approach to Embedding Nutritional Psychiatry in Practice Within the United Kingdom's National Health Service: Progress and Plans

Kevin Williamson, Rotherham Doncaster and South Humber National Health Service (NHS) Foundation Trust

Nutritional Psychiatry has gained global recognition in recent years. In 2005, the UK's Department of Health highlighted the importance of diet and nutrition in treating serious mental illness, though this has not been fully integrated. This presentation explores progress and challenges in incorporating nutrition into mental health care. One NHS Trust created a Centre for Nutrition and Behaviour, collaborating with Food and Behaviour Research to connect health professionals, academics, patients, and families. A stakeholder event led to developing dietary interventions for conditions like depression, autism, and dementia. Feasibility studies, including a self-directed Food and Mood course, are underway.

S29-2

From Evidence to Practice: A Strategic Approach to Implement Lifestyle Interventions in Mental Health in Germany, Austria and Switzerland

Annabel Mueller-Stierlin, University of Ulm

Despite growing evidence supporting the effectiveness of dietary interventions, their implementation remains limited in many healthcare systems globally. While Australia has made progress, countries like Germany face challenges in scaling these approaches. In response, the ESSENzPSYCHE network, founded in 2021, consists of 60 professionals, service users, and stakeholders from Germany, Austria, and Switzerland. The network aims to close the implementation gap through evidence-based, participatory approaches. This presentation will outline the Theory of Change guiding the network's activities and discuss plans to expand across Europe to develop a European Implementation Agenda for integrating lifestyle interventions into mental healthcare.

S29-3

Nutrition Professionals Working in Mental Health Settings

Anu Ruusunen, University of Eastern Finland/Kuopio University

Nutrition professionals possess unique skills for dietary counseling with individuals living with mental illnesses and physical comorbidities. Balancing psychiatric symptoms, metabolic challenges, and disordered eating behaviors are common obstacles in clinical practice.

Evidence shows better treatment outcomes when dietitians are included in dietary interventions for mental illness. However, the role of nutrition professionals remains undefined globally, and many lack education on mental illnesses and Nutritional Psychiatry. This presentation will explore the status of nutrition professionals' roles in mental health settings, focusing on Finnish dietitians' confidence and challenges, and highlight the educational needs for effective dietary counseling in these settings.

S29-4

Nutritional Psychiatry in Brazil: The Main Obstacles

Ana Paula Carvalho, Instituto Reverso Presenter

Nutritional Psychiatry is emerging in Brazil, but mental health professionals face challenges integrating its principles. This presentation uses a case study to highlight obstacles in incorporating Nutritional Psychiatry, focusing on the gap between patient expectations, clinical practices, and evidence. One major issue is patients' unrealistic belief that a healthy diet can replace medications, influenced by social media. Others expect quick results from dietary changes alone or rely on unsupported supplements. A case of a 45-year-old man with depression illustrates this over-reliance on supplementation. This highlights the need for better education and clearer guidelines for implementation in Brazil's mental health care.

S30-1

Can AI Dietitians Support Nutritional Psychiatry? A Comparative Study of Meal Plans Generated by Large Language Models

Szu-Wei Cheng, MD; Suet-Kei Wu, MSc; Jia-Chun Wu, BSc; Jane Pei-Chen Chang, MD, PhD; Kuan-Pin Su, MD, PhD

Background: Artificial intelligence (AI) models, particularly large language models (LLMs), have the potential to bridge the gap between nutritional psychiatry research and clinical practice by improving access to evidence-based meal plans. While previous studies have demonstrated that LLMs can provide nutritional evaluations with reasonable accuracy, their capacity to generate appropriate, evidence-based meal plans remains underexplored. Additionally, data on the accuracy of different models are limited.

Objective: This ongoing exploratory study aims to assess the capability of LLMs, such as ChatGPT and LLama, in generating meal plans for patients with psychiatric disorders.

Method: LLMs will be guided using structured Chain-of-Thought (CoT) prompts to develop meal plans for patients with psychiatric conditions and co-occurring chronic diseases such as diabetes mellitus. The generated meal plans will be evaluated based on their alignment with Dietary Reference Intakes (DRIs), guidelines in nutritional psychiatry, and recommendations for patients with co-occurring chronic diseases .

Results: Preliminary findings suggest that ChatGPT can produce meal plans that align with DRIs and established nutritional psychiatry guidelines, tailored to an individual patient's macronutrient, micronutrient, and diseasespecific needs. The complete findings will be presented at the Conference.

Conclusions: The preliminary results demonstrated the potential of LLMs to provide evidence-based meal plans. This ongoing research is expected to identify suitable models for fine-tuning into nutrition assistants, providing accessible, personalized, dietitian-verified meal plans.

S30-3

Methodological and Reporting Recommendations for Clinical Trials in Nutritional Psychiatry: Guidelines From the International Society for Nutritional Psychiatry Research

Wolfgang Marx PhD, Marjolein Visser PhD, Caroline Wallace PhD, Felice N Jacka PhD, Jessica Bayes PhD, Heather Francis PhD, Rachelle Opie PhD, Meghan Hockey PhD, Scott B Teasdale PhD, Almudena Sanchez Villegas PhD, Adrienne O'Neil PhD, Kuan-Pin Su PhD, Julia J Rucklidge PhD, Michael Berk PhD, Adrian Lopresti PhD, David Mischoulon PhD, Jeanette M Johnstone PhD, Heidi M Staudacher PhD

Research on nutraceutical and dietary interventions in psychiatry has grown substantially, but progress is hindered by methodological inconsistencies and limited reporting standards. To address this, the International Society for Nutritional Psychiatry Research presents the first guidelines on clinical trial design, conduct, and reporting for future clinical trials in this area. Recommendations were developed using a Delphi process including eighteen researchers with considerable clinical trial expertise and experience in either methodology, nutraceutical, or dietary interventions in psychiatry. These guidelines provide forty-nine recommendations for clinical trial design and outcomes, five for trial reporting, and seven for future research priorities. The recommendations included in these guidelines are designed to inform both nutraceutical and dietary clinical trial interventions in Nutritional Psychiatry. Common themes include an emphasis on the importance of a multidisciplinary research team and integration of co-design processes into the conduct and design of clinical research, methods to improve transparency and replicability of trial outcomes, and measures to address common biases in nutrition trials. Furthermore, we provide recommendations for future research including examining a greater variety of nutraceutical and dietary interventions, scalable delivery models, effectiveness and implementation studies, and the need to investigate these interventions in the prevention and management of less studied psychiatric conditions (e.g. schizophrenia and bipolar disorder). Recommendations included within these guidelines are intended to improve the rigor and clinical relevance of ongoing and future clinical trials in Nutritional Psychiatry.

S30-4

Feasibility, Acceptability, Reliability and Validation of a Targeted Nutrition-Risk Screening Tool in Mental Healthcare: The NutriMental Screener

Scott Teasdale[*1,2,3], Oliver Ardill-Young[1,2,3], Annabel Mueller-Stierlin[4], on behalf of the NutriMental consortium

[1]Discipline of Psychiatry & Mental Health, School of Clinical Medicine, UNSW Sydney, Australia.
[2]Mindgardens Neuroscience Network, Australia.
[3]Mental Health Services, South Eastern Sydney Local Health District, Australia.
[4]Institute for Epidemiology and Medical Biometry, Ulm University, Ulm, Germany.

Objective: Nutrition-risk screening is mandatory in Australian health services, triggering comprehensive assessment when risks are identified. Available nutrition-risk screeners have restricted foci and have not been validated in mental healthcare. These two studies aimed to test the feasibility and acceptability (study one), and reliability and validation (study two) of a nutrition-risk screening tool targeted to mental healthcare.

Methods: For study one, a multisite, mixed-methods, cross-sectional design was employed. Mental health clinicians implemented the multifaceted NutriMental screener and provided feedback via a standardised form. Primary outcomes were feasibility, acceptability and appropriateness scores. Directed content analysis was used to analyse open-ended feedback. For study two, the NutriMental screener is being subjected to test-retest reliability, inter-rater reliability, and concurrent validity. The NutriMental screener is being completed at baseline together with more comprehensive assessments (concurrent validity), within 24- hours by a second clinician (inter-rater), and then within one-week by the original clinician (test-retest).

Results: In study one, 54 clinicians from seven organisations (12 services) completed the screener with 256 mental health consumers. Mean implementation scores (out of five) were 3.1±0.8 for acceptability, 3.7±0.5 for appropriateness, and 4.3±1.7 for feasibility. Six themes and 17 subthemes related to barriers and facilitators to screeners implementation were identified resulting in a modified version of the screener. Data collection for study two is ongoing. We aim to recruit 260 mental health consumers from 11 organisations (18 services).

Conclusions: The NutriMental screener is feasible and acceptable for use within

ORAL

mental healthcare. Validity and reliability are currently being assessed.

S30-5

The Gap Between Knowing Healthy Eating and Doing Healthy Eating: A Systematic Review of Food Use Skills in People With a Severe Mental Illness

Donni Johnston[1,2], Thomas Clarke[2], Scott Teasdale[4], Urska Arnautovska[1,2,3], Gemma McKeon[3, 5, 6], Dan Siskind[1,2,3]

[1] Faculty of Health, Medicine and Behavioural Sciences, The University of Queensland, Brisbane, QLD, Australia
[2] Metro South Addiction and Mental Health Service, Brisbane, QLD, Australia
[3] Queensland Centre for Mental Health Research, Wacol, QLD, Australia
[4] Discipline of Psychiatry and Mental Health, School of Clinical Medicine, The University of New South Wales, Sydney, NSW, Australia
[5] West Moreton Health Psychology, Wacol, QLD, Australia
[6] Child Health Research Centre, The University of Queensland, South Brisbane, QLD, Australia

Objective: Poor diet contributes to physical health disparities in individuals with severe mental illness (SMI). This systematic review explores performance in food planning, food shopping and preparation as a potential driver of poor diet.
Methods: The systematic review protocol was pre-registered with PROSPERO (CRD42024546867). Databases PubMed, PsycInfo, CINAHL, EMBASE, and CENTRAL were searched for studies published until 18 October 2024. Eligible studies targeted adults with a clinical diagnosis of SMI and focused on food use skills. Observational and qualitative studies, and baseline data from intervention studies were included. Article screening and data extraction was independently conducted by two reviewers and a mixed-methods narrative synthesis approach according to SWiM guidelines was employed.
Results: A total of 27 studies were included, comprising 14 cross-sectional, ten case-control, and three qualitative designs. Primary findings suggest nutrition knowledge and skills are comparable across those with and without SMI, however, individuals with SMI face challenges applying this in real-world settings. Specifically, they i) take significantly longer to shop for food, make more errors, and spend more time revisiting aisles, and ii) require more time and make more mistakes during food preparation, such as incorrect sequencing and ingredient omissions. Further analysis will explore relationships between cognition and performance.

Conclusions: Nutrition interventions must move beyond nutrition education to target practical skills and offer individualised support focused on food shopping and preparation to address the inequalities experienced by people with SMI. More research is warranted to find best fit approaches based on symptom severity, cognitive and functional deficits.

S30-6

Smart Feeds: Co-Design and Pilot Implementation of a Program to Improve the Food Security of Adult Community Mental Health Service Users

Oliver Ardill-Young[1,2,3], Michelle Hsu[3], Lauren Nicholson[3], Catherine O'Donnell[2], P, LawEdwards[2,3], Liam Conlon[2,3], Isabella King[2,3] Philip Ward[1], Jackie Curtis[1,2,3], Scott Teasdale[1,2,3]

[1]Discipline of Psychiatry & Mental Health, School of Clinical Medicine, UNSW Sydney, Australia.
[2]Mindgardens Neuroscience Network, Australia.
[3]Mental Health Services, South Eastern Sydney Local Health District, Australia.

Objective: Food insecurity disproportionately affects people living with serious mental illness (SMI) and tailored interventions are scarce. This study aimed to: i) co-design an intervention tailored to people with SMI living in Sydney, Australia, and ii) evaluate the intervention for feasibility, acceptability and preliminary effectiveness.
Methods: The codesign process explored causes, impacts, and potential solutions through two workshops and seven focus groups that involved people living with SMI experiencing food insecurity and mental healthcare professionals, including peer workers. Reflexive thematic analysis, prioritisation activities and scoring of the perceived feasibility, acceptability and appropriateness of potential solutions were employed. The resulting 'Smart Feeds' pilot intervention consists of two components: a) a capacity-building group program delivered by a dietitian and occupational therapist, and; b) individualised support from a peer worker. The Smart Feeds pilot intervention is currently being implemented in an adult community mental health service. A mixed-methods process evaluation with pre-post effectiveness measures is being employed.
Results: Food insecurity was perceived as having systemic effects across mental and physical health. Two key causes of food insecurity were a lack of access and a lack of education, both of which have been targeted in the Smart Feeds model. Incorporating community and peer support into solutions was seen as key, with ambivalence around financial support. Preliminary findings from the 'Smart Feeds' pilot intervention evaluation will be presented.
Conclusions: Our findings reveal multifactorial perceived causes, experiences and impacts of food insecurity in people living with SMI and a promising approach to

developing solutions.

S31-0

Translation of Clinical Psychiatric Nutrition Research Into Solutions That Improve Human Mental Health

Dahlia Varghese, M.S., R.D.N., C.D.N

The development of clinical psychiatric research protocols and psychopharmacological inventions to alter brain chemistry are essential for transforming human mental health outcomes. However, theoretical mastery has no lasting clinical impact when daily human dietary choices do not support brain health. For individuals living with acute or chronic mental health conditions, daily food choices can support positive behaviour change and improved self-efficacy for disease management. Learn from expert Registered Dietitian Nutritionists in the Nutritional Psychiatry landscape who have successfully improved the physical and mental health of humans throughout the United States of America.

This session will explore decades of clinically effective and research-based strategies to transform mental health treatment using food. It is our aim to showcase the feasibility and utilization of psychology theories (e.g., Prochaska Stages of Change, Maslow's Hierarchy of Needs, and Motivational Interviewing) in combination with Medical Nutrition Therapy to improve somatic and psychological mental health symptoms. From a clinical treatment perspective, learn effective research data extraction techniques to support accurate nutritional data within research trials. Furthermore, a review of bureaucratic limitations that inhibit nutritional changes at all levels of care will inspire practical, client-focused solutions that support autonomy and recovery from negative mental health symptoms.

S31-1

The Extraction of Clinical Psychiatric Nutrition Data Utilizing Medical Nutrition Therapy for the Assessment of Anxiety Symptoms

April N. Hackert, M.S., R.D.N, University of Illinois at Urbana-Champaign

Symptoms of anxiety can manifest as early as elementary school. Both physical and psychological symptoms increase the risk of all chronic diseases. Nutritional deficiencies in conjunction with negative psychological constructs are foundational to the manifestation of symptoms of anxiety. It is paramount for the field of Nutritional Psychiatry to integrate Medical Nutrition Therapy (MNT) principles to address critical barriers to improving human dietary habits. This presentation will showcase innovative research data within the field of Nutritional Neuropsychology as collected within the Food Mood Project (FMP).

The FMP is a cross-sectional, mixed methods design of adult men and women greater than 18 years of age consented with no exclusion criteria (N = 257) that explored subjective affect evaluation in correlation to dietary patterns and psychiatric symptoms. Data collection occurred from December 5, 2015, to August 3, 2016. Through a clinical assessment of symptoms of anxiety with the validated research tool GAD-7

(Generalized Anxiety Disorder-7), led by a Registered Dietitian Nutritionist (RDN), this scientific exploration aims to revolutionize Clinical Nutritional Psychiatry research and health care practices.

S31-2

Effective Strategies From the Registered Dietitian Nutritionist That Positively Impact Human Behaviour Change Related to the Eating Experience

Jenna M. Fleming, R.D., L.D.N., Bridgewater State Hospital, Old Colony Correctional Center, Massachusetts Alcohol and Substance Abuse Center

The prevention and management of mental health symptoms originates with food. It is vital to address the human relational connection that influence dietary choices. This presentation will provide practical applications and interventions of care planning for individuals with severe mental illness and chronic disease management. Topics will include the use Medical Nutrition Therapy, Motivational Interviewing, Cognitive Behavioural Therapy, and Group Nutrition Education.

S32-0

Nutrition and Mental Health: Insights From International Psychologists in Clinical Practice

Megan Lee

Objective: Nutritional psychiatry consistently links nutrition with mental health outcomes, yet this connection is underrepresented in psychology training and practice. Psychologists globally report limited nutrition literacy. This study explores psychologists' understanding of nutritional psychiatry and its integration into therapeutic practice.

Methods: Researchers from nine international regions (Australia, New Zealand, Austria, Germany, UK, Ireland, Taiwan, Canada, and the US) conducted a phenomenological semi-structured focus group study. Each region held four to six focus groups with six to eight practicing psychologists, focusing on their experiences and perspectives regarding nutrition in therapy. De-identified transcripts underwent a six-stage reflexive thematic analysis, with findings reported separately for each region.

Results: While results are pending and will be finalised by October 2025 for the ISNPR conference, the symposia will feature an international project overview (Lee) and findings on health practitioners' experiences of discussing nutrition and mental health with service users, as well as on drivers and barriers related to this for different regions, linked to the different health care and training systems in Europe and Oceania (Mueller-Stierlin & Leal-Garcia: Germany & Austria, Leonard: Ireland & UK, Gilmour: Australasia, Chang: Taiwan).

Conclusions: Preliminary results are expected to highlight a global need for enhanced training in nutritional psychiatry for psychologists. On the basis of these regional findings on real-world experiences of psychologists, meta-synthesis will inform the development of actionable strategies to integrate nutritional approaches in mental health care applicable across diverse healthcare systems worldwide.

S32-1

Insights From International Psychologists in Clinical Practice: Background and Methods

Megan Lee

Background:
Nutritional psychiatry consistently links nutrition with mental health outcomes, yet this connection is underrepresented in psychology training and practice. Psychologists globally report limited nutrition literacy. This study explores psychologists' understanding of nutritional psychiatry and its integration into therapeutic practice.

Method:
Researchers from nine international regions (Australia, New Zealand, Austria, Germany, UK, Ireland, Taiwan, Canada, and the US) conducted a phenomenological semi-structured focus group study. Each region held four to six focus groups with six to eight practicing psychologists, focusing on their experiences and perspectives regarding nutrition in therapy. De-identified transcripts underwent a six-stage reflexive thematic analysis, with findings reported separately for each region.

Result:
The following presentations will outline the results from each geographical location.

S32-2

Insights from International Psychologists in Clinical Practice: Findings from Austria and Germany

Annabel Mueller-Stierlin, Sabrina Leal-Garcia

Background:
Nutritional psychiatry consistently links nutrition with mental health outcomes, yet this connection is underrepresented in psychology training and practice. Psychologists globally report limited nutrition literacy. This study explores psychologists' understanding of nutritional psychiatry and its integration into therapeutic practice.
Method:
Researchers from nine international regions (Australia, New Zealand, Austria, Germany, UK, Ireland, Taiwan, Canada, and the US) conducted a phenomenological semi-structured focus group study. Each region held four to six focus groups with six to eight practicing psychologists, focusing on their experiences and perspectives regarding nutrition in therapy. De-identified transcripts underwent a six-stage reflexive thematic analysis, with findings reported separately for each region.
Result:
Findings from focus groups from mental health professionals from Austria and Germany.

S32-3

Insights from International Psychologists in Clinical Practice: Findings from Ireland and the United Kingdon

Jayne Leonard

Background:
Nutritional psychiatry consistently links nutrition with mental health outcomes, yet this connection is underrepresented in psychology training and practice. Psychologists globally report limited nutrition literacy. This study explores psychologists' understanding of nutritional psychiatry and its integration into therapeutic practice.
Method:
Researchers from nine international regions (Australia, New Zealand, Austria, Germany, UK, Ireland, Taiwan, Canada, and the US) conducted a phenomenological semi-structured focus group study. Each region held four to six focus groups with six to eight practicing psychologists, focusing on their experiences and perspectives regarding nutrition in therapy. De-identified transcripts underwent a six-stage reflexive thematic analysis, with findings reported separately for each region.
Result:
Findings from focus groups from mental health professionals from Ireland and the United Kingdom.

S32-4

Insights from International Psychologists in Clinical Practice: Findings from Australasia

Angela Gilmour

Background:
Nutritional psychiatry consistently links nutrition with mental health outcomes, yet this connection is underrepresented in psychology training and practice. Psychologists globally report limited nutrition literacy. This study explores psychologists' understanding of nutritional psychiatry and its integration into therapeutic practice.
Method:
Researchers from nine international regions (Australia, New Zealand, Austria, Germany, UK, Ireland, Taiwan, Canada, and the US) conducted a phenomenological semi-structured focus group study. Each region held four to six focus groups with six to eight practicing psychologists, focusing on their experiences and perspectives regarding nutrition in therapy. De-identified transcripts underwent a six-stage reflexive thematic analysis, with findings reported separately for each region.
Result:
Findings from focus groups from mental health professionals from Australasia.

S32-5

Insights from International Psychologists in Clinical Practice: Findings from Taiwan

Jane Pei-Chen Chang

Background:
Nutritional psychiatry consistently links nutrition with mental health outcomes, yet this connection is underrepresented in psychology training and practice. Psychologists globally report limited nutrition literacy. This study explores psychologists' understanding of nutritional psychiatry and its integration into therapeutic practice.
Method:
Researchers from nine international regions (Australia, New Zealand, Austria, Germany, UK, Ireland, Taiwan, Canada, and the US) conducted a phenomenological semi-structured focus group study. Each region held four to six focus groups with six to eight practicing psychologists, focusing on their experiences and perspectives regarding nutrition in therapy. De-identified transcripts underwent a six-stage reflexive thematic analysis, with findings reported separately for each region.
Result:
Findings from focus groups from mental health professionals from Taiwan.

S33-0

Lifestyle Psychiatry: Findings From the Lancet Commission on Physical Health in People Living With Mental Illness

Philip B. Ward

The September issue of Lancet Psychiatry contained an update on the Lancet Commission physical health in people living with mental illness.
The lead author of this work will provide an overview of the key findings and the roadmap for future research and implementation. Philip Ward will outline an example of a Global South setting, Uganda, in which a range of lifestyle focussed interventions have been piloted and evaluated. Oliver Ardill-Young will discuss food security and exercise interventions being implemented in an urban community centre in Sydney that serves a wide range of people from refugee backgrounds.

S33-1

Implementing Lifestyle Interventions in Mental Health Care: An Overview of the Third Report From the Lancet Psychiatry Physical Health Commission

Scott B. Teasdale, PhD

Background:

Given the role diet, exercise, smoking and sleep play in the development of physical comorbidities for people with mental illness, and the potential for adjunctive treatment in their mental health recovery, lifestyle interventions were identified as an ideal focus for a report from the Lancet Psychiatry Physical Health Commission.

Method:

A collaboration of more than 30 leading experts in the area from 19 countries around the world to generate an in-depth, evidencebased 'roadmap' for how we can provide support for diet, exercise,smoking cessation and sleep to people living with mental illness. Steps included scoping, umbrella and systematic reviews and consultation processes with lived experience groups and 'Global South' colleagues.

Result:

Key findings for each of the five sections of the report were:

i) Substantial international recognition and movement have been made on lifestyle interventions in the last five years.

ii) 89 recent lifestyle interventions were examined for effectiveness and implementation components, with favourable findings for effectiveness and cost-effectiveness.

iii) Examination of meta-analyses identified eight recommendations for effective elements of lifestyle interventions.

iv) A systematic review of qualitative studies of lifestyle interventions identified priorities for action for varying levels of the health system and recommendations for delivering interventions in a way that meets the needs of people living with mental illness.

v) An overall recommendation list was generated and reviewed by lived experience groups and 'Global South' colleagues for context.

Conclusion:

It's no longer a lack of evidence; it is about closing the implementation gap. We need to address barriers within our health systems and funding models to make lifestyle support available to everyone living with mental illness.

S33-2

Lifestyle Psychiatry in LMIC Settings: Results From Uganda

Philip B Ward, BMedSc, PhD

Background:
The Lancet Commission update highlighted the potential for lifestyle interventions in low- and middle-income settings. This presentation will outline a series of initiatives undertaken in Uganda to provide low-cost, feasible interventions across a range of settings, including those living in rural communities, school-age children, and fishermen. Evaluations of training delivered to health professionals working in these settings will also be discussed.

Method:
A range of methodologies were employed across these studies.

Result:
Results of these initiatives will be presented.

Conclusion:
It is feasible to provide lifestyle interventions in LMIC settings, and positive results can be achieved to improve clinical and functional outcomes. The presentation will consider how lessons learned from these studies conducted in Uganda can be applied across other LMIC settings.

S33-3

Addi Road: Food Security and Physical Activity Support in a Community Setting

Oliver Ardill-Young, B.Psyc.(Hons.)

Background:
Key upstream factors of implementing lifestyle interventions identified in the Lancet Psychiatry Physical Health Commission are food insecurity and a lack of access to health care. Addison Road Community Organisation ('Addi Road') in Sydney, Australia is a community hub which is home to 40 organisations. It includes a food pantry which provides free and subsidised groceries to ~8500 people weekly and Addi Moves: a free, culturally responsive and trauma-informed physical activity service for individuals experiencing or who have experienced trauma or disadvantage, including mental illness.

Method:
This presentation will give an overview of mixed-methods research at Addi Road to provide snapshots of the food pantry, Addi Moves and their integration. This includes a cross-sectional, quantitative survey and qualitative interviews with people accessing the pantry to explore demographics, health profile and impacts and potential opportunities for improved services.

Result:
Preliminary findings indicate widespread cultural diversity among food pantry service users and the key role of the pantry in ensuring their food security. Qualitative interviews highlight financial and health reasons for accessing the food pantry and suggest a need for complementary allied health services in a 'hub' model. Insights from a current project integrating nutritional messaging will also be shared.

Conclusion:
The Addi Road model provides an understanding of the relationship between food insecurity, elements of physical health, and psychological distress, and the implementation of interventions to address upstream factors.

S34-1

The Role of Multinutrients in the Treatment of Psychiatric Disorders: The Science and the Practice

Julia J. Rucklidge

There has been a recent growth in research investigating the efficacy and safety of a broad spectrum of micronutrients as treatment for psychiatric disorders and psychological symptoms. In this workshop, Drs Rucklidge and Johnstone will discuss the recent paradigm shift of using broad spectrum micronutrients (vitamins and minerals) to treat psychiatric problems (e.g., ADHD, depression, stress, emotional dysregulation, maternal and infant mental health), reviewing when supplementation might be necessary despite a good diet, reviewing the hypothesized mechanisms of action and the current clinical evidence. They will discuss ethical issues, side effects, safety and potential interactions with psychiatric medications. They will illustrate treatment response from participants in their research studies.

Poster 04

Topical Application of Peony and Licorice Decoction Attenuates Exercise-Induced Muscle Pain: A Pilot Double-blind Randomized Self-Controlled Trial

Daniel Tzu-Li Chen, MD, PhD Chen-Wei Hsie , Chia-Han Tsai, MS , Tzung-Yan Lee, PhD
Pin-Chun Chen , Kuan-Pin Su, MD, PhD , Hen-Hong Chang, MD, PhD

Delayed onset muscle soreness (DOMS) is common after exercise training, causing pain and reduced muscle performance. Previous basic and animal studies have reported that oral use of Peony and Licorice Decoction (PLD), a traditional Chinese formula with anti-inflammatory and musclerelaxing properties, may be safe and effective for DOMS. However, there has been no clinical study, especially on the topical use of PLD, in this field so far.This is a double-blind, randomized, placebo-controlled trial. We recruited healthy young males to assess the effect of external PLD on DOMS. Participants performed high-intensity weight training in bilateral bicep muscles to induce DOMS. PLD or placebo ointments were applied randomly to each arm, and pain intensity was measured using the visual analogue scale (VAS) scores at pre- and five-minute post-intervention for paired T-test analyses.

A total of 30 participants were enrolled in this study. A significant reduction of VAS score was observed in both PLD ($p<0.001$) and placebo ($p=0.0008$) groups after intervention. However, the VAS pain score was significantly lower in the PLD-treated group compared to the placebotreated group after five minutes of application ($p=0.019$). The participants reported no adverse effect within three days after PLD use. Therefore, topical use of PLD may be a potential safe and effective treatment for DOMS. Further investigations are warranted.

Poster 05

Association between Dietary Inflammatory Index and Current Major Depression Episode among Participants of the Brazilian Longitudinal Study of Adult Health (ELSA-Brasil)

Marcus V. Zanetti, MD, PhD , Natalia dos Reis, MS , Carla Aprelini, PhD , Maria Carmen Viana, MD, PhD , Maria del Carmen B. Molina, PhD

Background: A growing body of evidence has documented an association between the dietary inflammatory potential and the presence of depressive symptoms in the population, but most of these studies evaluated individuals without an established psychiatric diagnosis.

Methods: Cross-sectional study with 13,546 civil servants (35 to 74 years) initially enrolled in the Brazilian Longitudinal Study of Adult Health. The Dietary Inflammation Index energy adjusted with the residual method (DIIE) was calculated based on a food frequency questionnaire. The presence of a current episode of a Major Depressive Disorder (MDD) was assessed using the Clinical Interview Schedule – Revised (CIS-R). Binary logistic regression was used to estimate the association with a 95% confidence interval (95% CI) through crude and adjusted analyses.

Results: We observed a higher DII-E in individuals with a current MDD episode compared to non-depressed participants. In logistic regression analysis, participants in the highest DII-E tertile (indicative of a more proinflammatory diet) showed a greater likelihood of experiencing a current depressive episode across all models. This association remained statistically significant even after adjusting for sociodemographic characteristics, lifestyle habits and obesity (OR = 1.3; 95% CI = 1.0–1.6; p = 0.035).

Conclusions: Our findings suggest that a higher inflammatory potential of the diet is associated with an increased likelihood of experiencing a depressive disorder among Brazilian adults. These results highlight the potential role of healthy dietary patterns as a preventive strategy in mental health.

POSTER

POSTER

Poster 09

Investigating the Prospective Association of Ultra-processed Food Intake with Risk of Bipolar Disorder and Schizophrenia Incidence: Evidence from the UK Biobank

Deb Junyi Zhang, MEd[1], Dulari Kaushalya Jayarathna Hakamuwa Lekamlage, PhD[2], Deborah Ashtree, PhD[1], Melissa M. Lane, PhD[1], Elizabeth Gamage, BSc (Hon)[1], Farzaneh Asoudeh, MSc[1], Sarah Gauci, PhD[1], Adrienne O'Neil, PhD[1], Felice Jacka, PhD[1], Mojtaba Lotfaliany Abrand Abadi, PhD[2], Mohammadreza Mohebb, PhD[2], Wolfgang Marx, PhD[1]

[1] Food and Mood Centre, Institute for Mental and Physical Health and Clinical Translation (IMPACT), School of Medicine, Deakin University, Geelong, VIC, Australia

[2] Institute for Mental and Physical Health and Clinical Translation (IMPACT),School of Medicine, Deakin University, Geelong, VIC, Australia

Objective: Studies have shown that higher ultra-processed food (UPF) consumption is associated with a higher risk of depressive outcomes; however, its relationship with other mental disorders, such as bipolar disorder and schizophrenia, remains largely unexplored. Therefore, this cohort study aims to investigate the prospective association between UPF intake with the risk of incident bipolar disorder and schizophrenia.

Methods: Participants from the UK Biobank, with over 500,000 individuals initially aged 40-69 (2009-2010), will be followed longitudinally to assess the riskof developing bipolar disorder and schizophrenia. UPF consumption characterisedby the Nova classification was measured using five repeated 24-hour dietary recall questionnaires at baseline (2009-2012). Diagnoses of mental disorder were determined using primary care and hospital inpatient records, supplemented with self-reported data from online mental health questionnaires. The analysis will be conducted using a Cox regression model, adjusting for potential confounders (e.g. sociodemographic, lifestyle and health related factors).

Results: Data analysis is currently underway and will be presented at the conference. Preliminary results indicate that, at baseline (2009), after excluding participants with bipolar disorder or schizophrenia diagnosed prior to the dietaryrecall to capture only incident cases, over 210,000 participants have data from atleast one valid dietary

questionnaire, with approximately 120,000 completing at least two.

Conclusions: By examining the association of UPF intake with the incidence of bipolar disorder and schizophrenia over time, this study aims to fill a critical gap in the existing literature. Gaining insights into these relationships may help shape public health policies and dietary recommendations.

Poster 11

Investigating Patterns of Association between Dietary Risks and Depression Prevalence Over Time: Results from the National Health and Nutrition Examination Survey

Emma Todd*[1], Deborah N Ashtree*[1], Sarah Gauci[1], Rebecca Orr[1], Melissa Lane[1], Euridice Martinez Steele[2], Samantha Dawson[1], Wolfgang Marx[1], Felice Jacka^[1], Adrienne O'Neil^[1], *Co-first authors, ^Co-senior authors

[1]Food & Mood Centre, Deakin University, Institute for Mental and Physical Health and Clinical Translation (IMPACT), Geelong, Australia
[2]Department of Nutrition, University of São Paulo, São Paulo, Brazil.
All authors other than Emma Todd and Rebecca Orr have PhD-level degrees. Emma Todd and Rebecca Orr have Bachelors (Hons).

Background: Diet quality is associated with depression prevalence and risk, yet few studies have examined this relationship through the lens of theGlobal Burden of Disease (GBD) dietary categorisations or at multiple time waves in the population. We aimed to do so using data from the National Health and Nutrition Examination Survey (NHANES) collected between 1999-2018.
Methods: We used complete-case logistic regression to assess associations between dietary risk factors as defined by the GBD and the odds of having depression (defined as PHQ-9?10) in each independent wave of NHANES and averaged across all waves. Models were adjusted for age, sex, education, and total energy intake, and weighted to representthe US population.
Results: Overall, diet quality was poor but trended towards improvement inlater waves. Depression prevalence remained consistent across waves, with an overall rate of 7.69% (females: 9.21%; males: 6.00%). Combining data from all waves, higher intakes of fruit (OR: 0.71, 95%CI: 0.64-0.79), vegetables (OR: 0.85, 95%CI: 0.81-0.90), legumes (OR: 0.80, 95%CI:
0.68-0.93), whole grains (OR: 0.63, 95%CI: 0.52-0.75), nuts and seeds(OR: 0.91, 95%CI: 0.85-0.97), fibre (OR: 0.27, 95%CI: 0.2-0.37) and
polyunsaturated fat (OR: 0.79, 95%CI: 0.62-1.00) were associated with lower odds of depression. Conversely, higher intakes of sugar-sweetened beverages (OR: 1.15, 95%CI: 1.09-1.22) were associated with higher odds.

POSTER

Poster 12

Changes of Neurotoxicity Symptoms in Major Depressive Disorder Patients

Suet-Kei Wu[1,2], Mei-Ling Li[1], Ya-Hui Yang[1], Chun-Tai Chen[1], Kai-Jie Yang[1], Tz-Sin Hsu[1], Hui- Yu Tsai[1], Jane Pei-Chen Chang[1,4,5], Kuan-Pin Su[1,3,4]

[1]Mind-Body Interface Research Center (MBI-Lab), China Medical University Hospital, Taichung, Taiwan
[2]Graduate Institute of Nutrition, China Medical University, Taichung, Taiwan
[3]An-Nan Hospital, China Medical University, Tainan, Taiwan
[4]College of Medicine, China Medical University, Taichung, Taiwan
[5]Child and Adolescent Psychiatry Division, Department of Psychiatry, China Medical University Hospital Taichung, Taiwan.

Objective: Chronic pain often co-occurs with depression, and both conditions can be influenced by inflammation. Omega-3 polyunsaturated fatty acids (n-3 PUFAs), particularly eicosapentaenoic acid (EPA), possess anti-inflammatory properties and have shown promise in managing both pain and depressive symptoms. Body Mass Index (BMI) may also play a role in these outcomes. This study investigated the relationship of EPA supplementation and BMI on changes in neurotoxicity pain symptoms and depression scores over a 12-week study period.
Methods: Baseline demographic and clinical data including body weight, height, pain score and depressive symptoms were collected using Neurotoxicity Rating Scale (NRS) and Hamilton Depression Rating Scale (Ham-D), respectively at baseline and week 12. Participants were randomized to receive either EPA or placebo. Changes in NRS scores (subscales including somatic, painful and non-painful) from baseline to week 12 were analyzed using ANCOVA (n=42), with baseline NRS, age, treatment group, BMI category (lean, overweight/obese, severe, very severe), and the treatment-by-BMI interaction as predictors.
Results: About one-third of our patients (n=18, 33.9%) were classified as overweight/obese, severe obese and very obese, respectively. The ANCOVA model significantly predicted changes in painful neurotoxicity symptoms, particularly in painful symptoms ($p=0.002$, Partial Eta Squared=0.385), with baseline pain ($p<0.001$) and age ($p=0.007$) being significant predictors, while treatment ($p=0.685$), BMI ($p=0.231$) and its interaction with treatment were not significant ($p=0.706$).

POSTER

Conclusions: Baseline pain symptoms and age were identified as significant predictors in changes in painful neurotoxicity symptoms over the study period, independent of treatment and BMI.

Poster 13

Mind, Body, and Medication: How Disordered Eating Mediates Self-Determination and Treatment Engagement in Severe Mental Illness.

Katie Dalton, Philip Ward, Scott Teasdale.

Background: Disordered eating (DE) behaviours, ranging from emotional or binge eating to restrictive patterns, are increasingly observed in individuals with severe mental illness (SMI), yet are rarely assessed in mental healthcare. These behaviours may disrupt medication adherence, amplify metabolic side effects, and contribute to treatment disengagement. This study examines how DE impacts medication compliance and perceived autonomy, offering a behavioural lens to support precision approaches in nutritional psychiatry.

Methods: In this case-comparator study, 40 community mental health service users prescribed antipsychotic medication are being recruited to complete a range of validated questionnaires. These questionnaires assess medication adherence, perceived autonomy support from clinicians, self-determined motivation, perceived competence for health behaviour change, body image satisfaction, and adverse effects of psychotropic medications. Participants are also completing a structured eating disorder assessment conducted then being stratified into DE (case) and non-DE (comparator) groups. Between-group comparisons and correlational analyses will examine associations between behavioural factors and psychotropic medication adherence. Mediation analyses will explore the indirect effects of body dissatisfaction and medication side effects.

Results: Data collection is ongoing. Preliminary findings will highlight how disordered eating behaviours intersect with medication adherence, perceived autonomy and self-efficacy regarding mental health management, and treatment experience in SMI populations.

Conclusions: Understanding disordered eating as a behavioural modifier of pharmacological treatment perception and engagement may help tailor interventions and support more integrated, person-centered models of care in psychiatric settings, bridging nutritional psychiatry with real-world clinical complexity.

Poster 14

Assessing the Relationship Between Cognitive Function and Frailty Scores: Implications for Nutritional Strategies in Aging Populations

Yu-Li Liu, PhD[1,2], Yi-Chun Chen, MD[3,4], Yah-Yuan Wu, MD[3,4], Tung-Hsia Liu, BS[1], Hsiang-Wei Kuo, MS[1], Chih-Cheng Hsu, MD, DrPH[5,6], Shih-Feng Tsai, MD, PhD[7,8], Yuh-Ru Lin, PhD[7], Chao A. Hsiung,PhD[5], Wei J. Chen, MD, ScD[1]

[1]Center for Neuropsychiatric Research, National Health Research Institutes,Miaoli County, Taiwan
[2]Ph.D. program for aging, China Medical University, Taichung, Taiwan
[3]Department of Neurology, Chang Gung Memorial Hospital LinkouMedical Center and College of Medicine, Chang Gung University, Taoyuan, Taiwan
[4]Dementia Center, Taoyuan Chang Gung Memorial Hospital, Taoyuan,Taiwan
[5]Institute of Population Health Sciences, National Health Research Institutes, Miaoli County, Taiwan
[6]National Center for Geriatrics and Welfare Research, National HealthResearch Institutes, Yunlin, Taiwan
[7]Institute of Molecular and Genomic Medicine, National Health Research Institutes, Miaoli, Taiwan;
[8]National Yang Ming Chiao Tung University, Taipei, Taiwan

Background: Most users of nutritional supplements are often from the older age group. To establish a rational nutritional supplementation strategy, this study conducts a correlation analysis of cognitive function and various physical functions in a Taiwanese follow-up cohort aged 60 to 66 years.
Method: This study analyzed 288 community-dwelling older adults (mean age: 60) from the Healthy Aging Longitudinal Study (HALST) database in Taiwan. Variables were examined at baseline (Wave 1) and at a six-year follow-up (Wave 2). Plasma levels of neurofilament light chain (NfL) and soluble tumor necrosis factor receptor 1 (sTNF-R1) were measured. Changes between the two waves were assessed using generalized estimating equations, with Bonferroni correction and false discovery rate evaluation applied to control for multiple comparisons.
Result: During the comparison between two waves, individuals exhibited a decline in height, diastolic blood pressure (DBP), low-density lipoprotein (LDL) level, and Mini-Mental State Examination (MMSE) score, especially in orientation and language scores ($p<=0.0006$). There was an increase in waistline and pulse pressure (PP) during this period ($p<0.0001$). Decrease in MMSE score was correlated with the total score of frailty (FS) (?= -0.54, $p=0.003$), and NfL (?=-0.028, $p<0.0001$). Increase in FS score

was associated with a decrease in MMSE score (p=0.005) and elevation of TNF- R1 (p=0.0003).

Conclusion: This study suggests that interrelated declines in cognition and physical function can start in middle age, including declines in MMSE and height, vascular resistance, and frailty. These observations underscore the importance of nutritional interventions that address both frailty and neurocognitive support.

Poster 15

The Mediating Role of Gut Microbiome Dysbiosis in the Relationship Between Antibiotic Therapy and Depressive Disorders: An Evidence-Based Case Report

Dea Athaya Budiman, MD, Gina Anindyajati, MD, Consultant Psychiatrists

Background: A 38-year-old woman presented with persistent sadness, anhedonia, fatigue, and concentration difficulties for 6 weeks following her third antibiotic course for recurrent respiratory tract infections within a 6-month period. She had received amoxicillin, azithromycin, and levofloxacin for a total of 17 days, and afterwards also developed new- onset gastrointestinal symptoms consistent with dysbiosis. This case raised the question: Does antibiotic therapy increase the risk of depressive disorders through gut microbiome dysbiosis mechanisms?
Methods: A systematic literature search was conducted across PubMed, Cochrane Library, Scopus, and EBSCO databases using structured search terms related to antibiotics, gut microbiome, and depression. Studies were screened against eligibility criteria and appraised using CASP tools.
Results: Three studies met the eligibility criteria. Tsai et al. showed increased risk of depression following H. pylori eradication therapy (OR 2.80, 95% CI 1.30-6.01). Lurie et al. demonstrated dose-dependent relationships across antibiotic classes with escalating risk through recurrent exposures. Lee et al. established a duration dependent relationship, with hazard ratios ranging from 1.28 (1-14 days) to 2.33 (?91 days). Number Needed to Harm ranged from 179 (single antibiotic) to 41 (?5 antibiotics) and from 179 (brief exposure) to 35 (prolonged exposure).
Conclusion: Evidence confirms antibiotics as an independent depression risk factor. Gut microbiome dysbiosis likely mediates this relationship through gut-brain axis disruption. These findings serve as an important warning to physicians to exercise caution when prescribing antibiotics. Psychiatrists should consider recent antibiotic exposure in new- onset depression cases. A multidisciplinary approach incorporating microbiome interventions alongside conventional psychiatric treatment may improve outcomes.

Poster 16

The Efficacy of Vitamin D supplementation in Patients Diagnosed with Depression: A Dose Response Meta-Analysis of Randomized Controlled Trials

Hsuan-Hsien Liu, School of Medicine, Chung Shan Medical University, Taichung, Taiwan, Chia-Yu Liu, Department of Audiology and Speech-Language Pathology, Asia University, Taichung, Taiwan, Jheng-Yan Wu, Department of Nutrition, Chi Mei Medical Center, Tainan, Taiwan

Background: Depression, a prevalent psychiatric condition, exhibits high recurrence and suboptimal treatment response. Emerging evidence suggestsvitamin D's neuroprotective and anti-inflammatory properties may modulate depressive symptoms, yet its therapeutic efficacy and optimal dosage remains uncertain. This meta-analysis evaluates its efficacy and dose–response relationship.
Methods: We systematically searched PubMed, EMBASE, and the Cochrane Library from inception to June 2024. Primary outcome was thechange in depressive symptom severity. Subgroup and dose–response analyses were conducted.
Results: Fifteen RCTs involving 962 participants were included. Vitamin D supplementation significantly improved depressive symptoms compared to placebo (SMD: ?0.98; 95% CI: ?1.28 to ?0.68; $p < 0.001$). Reductions in serum parathyroid hormone (PTH) and tumor necrosis factor-? (TNF?) were also observed. Benefits were consistent across subgroups, including females and individuals with obesity. Dose–response analysis indicated optimal effects at daily doses up to 5,000 IU.
Conclusion: Vitamin D supplementation appears to be an effective adjunctive strategy for reducing depressive symptoms. A daily dose of 5,000 IU may provide optimal therapeutic benefits, offering a clinicallyrelevant dosage guideline for future interventions.

Poster 17

Peripheral endocannabinoids in major depressive disorder: A meta-analysis

Muhammad Yaseen [1,2,7], Halliru Zailani [2,3], Jane Pei-Chen Chang [2,6,7],Kuan-Pin Su [2,5,7]

[1]Institute of translational Medicine and New Drug Development, ChinaMedical University, Taichung, Taiwan.
[2]Mind-Body Interface Research Center (MBI-Lab), China MedicalUniversity Hospital, Taichung, Taiwan.
[3]Graduate Institute of Nutrition, China Medical University, Taichung,Taiwan.
[4]Department of Chinese Medicine, China Medical University Hospital,Taichung, Taiwan.
[5]An-Nan Hospital, China Medical University, Tainan, Taiwan.
[6]Child and Adolescent Psychiatry Division, Department of Psychiatry,China Medical University Hospital, Taichung, Taiwan
[7]College of Medicine, China Medical University, Taichung, Taiwan.

Background: The endocannabinoid system has been implicated in the pathophysiology of Major Depressive Disorder (MDD). However, findings regarding endocannabinoid levels in MDD patients remain inconsistent. To meta-analyze existing evidence on endocannabinoid alterations in individuals with MDD compared to healthy controls.
Methods: A comprehensive search of PubMed, Embase, and Web of Science databases was conducted up to April 2025. Studies reporting key endocannabinoids, including anandamide (AEA) and2-arachidonoylglycerol (2-AG), in MDD patients and healthy controls wereincluded. Data extraction and risk of bias assessment are being performed following PRISMA guidelines. A random-effects meta-analysis will be conducted to calculate pooled standardized mean differences (SMD) with 95% confidence intervals. Preliminary
Results: A total of 5,095 records were initially identified through database searches. After screening titles, abstracts, and full texts, 15 potentiallyeligible studies involving approximately 2,000 participants were selectedfor inclusion in the meta-analysis. Comprehensive statistical analyses, including subgroup analyses, are currently in progress and will be presentedat the conference.
Conclusion: This ongoing meta-analysis seeks to elucidate the relationship between peripheral endocannabinoid levels and MDD. The findings may offer insights into novel biomarkers and therapeutic targets for MDD.

Poster 19

SSRI Response and Neurofilament Light Chain in MDD

Ginger Chun-Yen Yang[1], Tung-Hsia Liu, BS[2], Kuan-Pin Su, MD-PhD[3,4], Chia-Yih Liu, MD[5], Hsiang-Wei Kuo, MS[2], Shu Chih Liu, BS[2], Yu-Li Liu, PhD[2,6]

[1]School of Chinese Medicine, College of Chinese Medicine, China MedicalUniversity, Taichung, Taiwan
[2]Center for Neuropsychiatric Research, National Health Research Institutes,Miaoli County, Taiwan
[3]Department of Psychiatry and Mind-Body Interface Laboratory (MBI-Lab), China Medical University Hospital, Taichung, Taiwan
[4]Graduate Institute of Biomedicine, College of Medicine, China Medical University, Taichung, Taiwan
[5]Department of Psychiatry, ChangGung Memorial Hospital at Linkou andChangGung University College of Medicine, TaoYuan, Republic of China
[6]Ph.D. program for aging, China Medical University, Taichung, Taiwan

Background: Selective serotonin reuptake inhibitors (SSRIs) are the primary pharmacological treatment for major depressive disorder (MDD), but some patients exhibit treatment resistance. Neurofilament light chain (NfL), a biomarker of neuronal injury, may help identify patients with more severe brain involvement. This study explores NfL levels in MDD patients treated with SSRIs.
Method: This 8-week prospective cohort study included 77 patients with moderate-to- severe MDD who were treated with the SSRIs escitalopram or paroxetine. Sociodemographic data, depression (HAM-D) and anxiety (HAM-A) scores, SSRI serum levels (measured by HPLC), and plasma NfL levels (measured by ELLA assay) were collected at weeks 2, 4, and 8. Repeated measures were analyzed using Generalized Estimating Equations (GEE).
Result: The mean age of the 77 MDD patients was 43 years. The depression (HAM- D) and anxiety (HAM-A) scores were significantly improved over the 8-week course of SSRI treatment ($p < 0.0001$, GEE for repeated measures), but plasma NfL were reduced marginally after removed of 4 outliers ($p=0.029$). Patients were further stratified based on plasma NfL levels, using a cutoff of 20 pg/mL to reflect the severity of neuronal injury. The group with NfL levels >20 pg/mL demonstrated a significantly greater reduction in anxiety symptoms over time ($p = 0.039$), whereas no significant between-group difference was observed in the

POSTER

improvement of depression symptoms.

Conclusion: These findings suggest that SSRI treatment resistance may be associated with underlying neuronal damage, and that plasma NfL may serve as a potential biomarker for identifying individuals at risk of poor treatment response.

Poster 20

Association of Anxiety and Depression with Characteristics of TCM Pulse Diagnosis in Ulcerative Colitis

Chien-Yun Hou, B.Med., Resident Physician of Chinese Medicine

Jen-Wei Chou, Jen-Wei Chou, M.D., M.Sc., Attending Physician of Gastroenterology, Lun-Chien Lo, Ph.D. (Chinese Medicine), Attending Physician of Chinese Medicine, Po-Chi Hsu, Ph.D. (Chinese Medicine), Attending Physician of Chinese Medicine, Ssu-Wei Huang, B.S.

Background: Ulcerative colitis (UC), a subtype of inflammatory bowel disease (IBD), is often accompanied by psychological comorbidities such as depression and anxiety. In Traditional Chinese Medicine (TCM), pulse diagnosis is a fundamental tool for assessing physiological and pathological states. This study aims to assess and compare depression and anxiety levels between UC patients and healthy controls using validated scales, and to explore associations between emotional status and pulse characteristics measured by a TCM-based device (ANSwatch).
Method: A total of 45 healthy controls and 33 UC patients who met the inclusion criteria were enrolled in this study. All participants completed the Hospital Anxiety and Depression Scale (HADS) and underwent pulse measurement using the ANSwatch device. Statistical analyses included independent Student's t-tests, Chi-square and Fisher's exact tests.
Result: UC patients showed significantly higher anxiety levels than controls ($p = 0.027$). Pulse position differed significantly between groups ($p = 0.002$), with a higher proportion of deep pulses in UC patients and more medium pulses in controls. In the UC group, pulse position was significantly associated with depression severity (Fisher's Exact Test, $p = 0.0499$).
Conclusion: UC patients showed higher anxiety levels and distinct pulse characteristics compared to controls. Deep pulses were more common in UC, and pulse position was associated with depression severity. These findings suggest a potential link between emotional states and TCM pulse features in UC.

Poster 21

Can Washoku Help Prevent Depressive Symptoms?

Haruka Miyake, BA, Shohei Yamamoto, PhD, Tetsuya Mizoue, MD, PhD.

Background: Washoku (Japanese diet) is characterized by high consumption of fish, soy products, and green tea, each linked to better mental health. However, whether culturally rooted dietary patterns in Japan help prevent mood disorders remains unclear. This study aims to develop scores for adherence to the traditional Washoku and a modified version, and to examine their cross-sectional associations with depressive symptoms in a working population.
Methods: As part of the Japan Epidemiology Collaboration on Occupational Health Study, a survey was conducted from 2018 to 2021. Diet was assessed using a validated food frequency questionnaire (Nutrients, 2022). We developed scores for the traditional Washoku (9 items: white rice, miso soup, soy products, vegetables, mushrooms, seaweed, fish, salty food, green tea) and its modified version (11 items: whole grain instead of white rice, reverse scoring for salty food, and added fruits, raw vegetables, dairy products). Depressive symptoms were assessed using the 11-item CES-D Scale (cutoff?9). We used a robust Poisson regression to estimate prevalence ratios (PR) and 95% confidence intervals (CI), treating study site as a random effect.
Results & Conclusion: Of 12,499 participants, 30.9% reported depressive symptoms. The adjusted PR (95%CI) of depressive symptoms for the lowest through highest quartiles of the traditional Washoku score were 1.00 (reference), 0.94 (0.88–0.99), 0.91 (0.85–0.98), and 0.83 (0.80–0.86); for the modified version were 1.00 (reference), 0.94 (0.89–0.98), 0.83 (0.80–0.87), and 0.80 (0.76–0.83). Greater adherence to both Washoku diets was associated with a lower prevalence of depressive symptoms.

Poster 22

PROgram to Enhance Cardiovascular Risk Trough an Intervention of Nut rition in Bipolar Disorder (PROTECTION-BD): Study Protocol for a Dietary Intervention

Fernanda Gabriel[1], Tetyana Rocks[2], Beny Lafer[1]

[1]Institute of Psychiatry from the Medical School of University of Sao Paulo, Brazil
[2]Food & Mood Centre, Deakin University, Australia

Objective: This study aims to evaluate the impact of a nutritional intervention on cardiovascular risk in individuals with bipolar disorder (BD). It is the first study of its kind to explore the effects of a balanced dietary pattern as a potential intervention for improving cardiovascular health in BD patients.
Methods: A randomized-controlled trial will be undertaken in 78 adults outpatients with diagnosed BD. Eligible participants will be randomised to dietary intervention group or to control group. Dietary intervention PROTECTION-BD will be designed and delivered by registered dietitian, tested in a pilot study and based on the principles for healthy eating recommended by the Brazilian Dietary Guidelines. It will comprise of eight groupbased and seven individual sessions delivered in person. PROTECTION-BD will be focused on increasing knowledge and providing support for improving dietary intake. Data collection will occur at baseline and weeks 12, 24 and follow-up at 52.
Results: The primary outcome will be based cardiovascular health - verified through blood biomarkers, anthropometric measures and the Framingham Risk Score - individual algorithm for 10-year cardiovascular risk. The secondary outcomes will be the impact on quality of life (WHOQOL-Bref), the adherence of the intervention (Nutrinet) and the quality of diet (ESQUADA).
Conclusions: This dietary intervention has the potential to open new treatment avenues by testing whether improved dietary choices can enhance cardiovascular health and quality of life in individuals with BD, potentially leading to symptom improvement as well.

Poster 23

Stress During COVID19 Pandemic: A Global Study Among Psychiatrists

Vivian Po-Hsuan Wu[1,2], Ravivarma Rao Panirselvam[3], Anita Codati[4], Frilya Rachma Putri[5,6], Khalid Abdadhai[7,8], Elona Dashi[9], Camille Noël[10,11], Yugesh Rai[12], Ramya Vadivel[13], Piyush Verma[14], Sarah Wilson[15], Jane Pei-Chen Chang,[1,2,16]

[1]College of Medicine, China Medical University, Taichung, Taiwan

[2]Mind-Body Interface Lab Research Center (MBI-Lab), China MedicalUniversity Hospital, Taichung, Taiwan

[3]Department of Psychiatry and Mental Health, Hospital Miri, Sarawak,Malaysia.

[4]Department of Psychiatry, Hospital Tunku Azizah, Kuala Lumpur,Malaysia

[5]Department of Psychiatry, Faculty of Medicine Universitas BrawijayaMalang-East Java, Indonesia

[6]General Hospital, Saiful Anwar Malang-East Java, Indonesia

[7]Department of Psychiatry, International University of Africa, Sudan [8]Division of Child and Adolescent Psychiatry, Red Cross Hospital,University of Cape Town, South Africa

[9]Department of Neuroscience, University Hospital Center "Mother Teresa",Tirane, Albania

[10]Department of Child Psychiatry, Centre Hospitalier Universitaire Saint-Pierre, Université Libre de Bruxelles, Brussels, Belgium

[11]Child and Adolescent Psychiatry Hospital La Petite Maison ACIS,Chastre, Belgium

[12]Essex Partnership University NHS Trust, UK

[13]Department of Addictions and Mental Health, Waikato District HealthBoard, New Zealand

[14]Department of Psychiatry, Pt B D Sharma PGIMS, Rohtak, Haryana,India

[15]Department of Psychiatry, Faculty of Medicine, Beni-Suef University,Egypt

[16]Child Psychiatry Division and MBI-Lab, Department of Psychiatry, ChinaMedical University Hospital, Taiwan

POSTER

Objective: The COVID-19 Pandemic imposed significant psychological burdens on psychiatrists, who often face high clinical demands and emotional challenges. This study aimed to investigate the associations between job- related stressors, emotional distress, workplace resources, and professional quality of life among psychiatrists during the Pandemic.

Method: This is a cross-sectional study conducted online from March 15, 2020 to April 15, 2020 to psychiatrists globally. Participants were assessed for perceived work-related stress, duration and severity of job stress, frequency of mood being affected, and availability of workplace resources. They were also assessed with subscales of the Professional Quality of Life Scale (ProQoL)—compassion satisfaction (CS), burnout (BO), and secondary traumatic stress (STS).

Results: A total of 90 psychiatrists completed the study. Higher CS was positively associated with frequency of mood being affected ($p = 0.04$), negatively with job stress duration ($p = 0.02$), and with greater workplace resources ($p = 0.02$). BO was predicted by perceived work-related stress ($p = 0.045$) and stress duration ($p = 0.03$). STS was associated with mood being affected ($p < 0.01$), perceived stress ($p = 0.04$), and older age ($p = 0.04$).

Conclusion: The professional quality of life (compassion satisfaction, burnout and secondary traumatic stress) of psychiatrists during the COVID-19 Pandemic was greatly shaped by the frequency and intensity of emotional and occupational stressors and the availability of workplace resources.

Enhancing institutional support and emotional resilience may help mitigate the psychological impact of future health crises.

Poster 25

Effects of Probiotic Microorganism Administrations in Pregnancy Stress-Exposed Nulliparous Female Mice: With a Focus on Affective Behaviors, the HPA-Axis and Inflammatory Responses

Pei-Ling Tsai, MSc; Jessica Schiele, MSc, Ulm University Medical Center; Dominik Langgartner, PhD, Ulm University Medical Center; Stefan O. Reber, PhD, Ulm University Medical Center; David A. Slattery, PhD, University Hospital Frankfurt

Postpartum mood disorders affect between 5-13% of mothers globally. Chronic low-grade inflammation has gained attention as a potential risk factor. The 'Old Friends' hypothesis proposes that the increasing prevalence of inflammation-related mood disorders is due to decreasing exposure to immunoregulatory microbes with which mammals have coevolved. *Mycobacterium vaccae* ATCC ^{15483T} (*M. vaccae*) has been shown in rodents to promote immunoregulation and to be protective against the negative consequences of stress and "Western"-style diet.

We aimed to study the effects of repeated intragastric (i.g.) *M. vaccae* administrations in pregnancy stress-exposed dams with a focus on affective behaviors, the HPA-axis and inflammatory responses

Two cohorts of female C57BL/6N mice received repeated i.g. *M. vaccae*/vehicle administrations (3x, once a week over two weeks), followed by mating and 13 consecutive days of pregnancy stress (PS; restraint x social instability)/group-housing (=noPS)). Dams of Cohort 1 were tested for affective behaviors after weaning and subsequently euthanatized. Mice of Cohort 2 were additionally injected with Bromodeoxyuridine upon the commence of PS for studying hippocampal neurogenesis and euthanatized after delivery.

Independent of prior *M. vaccae* administrations, statistical analyses revealed that PS resulted in heightened locomotor activity, reduced sociability, mild immune changes. Noteworthy, *M. vaccae* statistically ameliorated PS-induced adrenal enlargement and increased plasma corticosterone levels in PS mothers. Importantly, prior *M. vaccae* administrations did not affect any of the assessed parameters in noPS mothers.

Overall, PS paradigm induced typical signs of chronic stress in the dams, with *M. vaccae* in part being protective, particularly via the HPA-axis.

Poster 27

Water Extract of Artemisia indica Willd. Attenuates Blue Light-Induced Melanopsin Expression and Corticosterone-Mediated Injury in ARPE-19 Cells

Lin, Yu-Ting, M.S., Kuei, Yu-Shu, M.S. , Shih, Jhen-Ru, M.S. , Chao, Ming-Yu, M.S.
Jiang, Ping-Lun, Ph.D., Chen, Wei-Cheng, Ph.D

In recent years, the increased frequency of usage modern of digital devices has led people to be exposed to blue light emission over long periods. It is assumed that melanopsin-containing retinal ganglion cells (mRGCs) express melanopsin, a photopigment involved in non-image-forming visual pathways under light stimulation, which is more sensitive to blue light stimulation and enhances melanopsin secretion. More of melanopsin causes behavioral arousal of rodents and delays sleep. Recent studies have shown that depressive symptoms are driven by corticosterone, which is elevated by light exposure. However, it is not yet clear whether melanopsin has the direct relationship with depression and a direction of causality also remains to be determined. Artemisia indica Willd., a traditional Chinese medicinal herb known for its calming and blood circulation-promoting properties, was evaluated for its protective effects. In this study, models of blue-light (460nm, 300 lux) exposure and corticosterone induction for 24 h were established using the Adult Retinal Pigment Epithelial cell line-19 (ARPE-19). Preliminary results demonstrated that blue light reduces ARPE-19 cell viability by approximately 20%, an effect that was attenuated by treatment with water extracts of Artemisia indica (WAI). Moreover, WAI significantly suppressed melanopsin secretion in ARPE-19 cells under blue-light exposure. In a corticosterone-induced injury model, WAI likewise exerted protective effects. Taken together, these findings indicate that WAI can counteract blue? light-related cellular stress. Consequently, they motivate the development of a blue light-induced animal model of depression to further evaluate the antidepressant-like actions of WAI through modulation of melanopsin signaling.

Poster 28

Early Antibiotic Exposure and Risk of Psychiatric and Neurocognitive Outcomes: Results of a Systematic Review and Meta-Analysis

Jessica Emily Green[1,2,3], Anna Wrobel[1], Emma Todd[1], Wolfgang Marx[1], Michael Berk[1,3-6], Mojtaba Lotfalian[1], David Castle[7], John F Cryan[8], Eugene Athan[9,10], Christopher Hair[10,11], Andrew A Nierenberg[12,13], Felice N Jacka [1,14,15], Samantha Dawson[1]

[1]Deakin University, IMPACT, the Institute for Mental and Physical Health and Clinical Translation, School of Medicine, Barwon Health, Geelong, Australia
[2]Multidisciplinary Alfred Psychiatry Research Centre (MAPrc), Central Clinical School, Faculty of Medicine Nursing and Health Sciences, Monash University, Prahran, Australia
[3]Mental Health, Drug and Alcohol Service, Barwon Health, Australia
[4]Department of Psychiatry, University of Melbourne, Parkville, Australia
[5]Orygen Youth Health Research Centre and the Centre of Youth Mental Health, Melbourne, Australia
[6]The Florey Institute for Neuroscience and Mental Health, Parkville, Australia
[7]University of Tasmania, Hobart, Tasmania
[8]Department of Anatomy and Neuroscience, University College Cork and APC Microbiome, Ireland
[9]Department of Medicine, Barwon Health, Geelong, Australia
[10]Deakin University, school of Medicine, Geelong, Australia
[11]Epworth Hospital, Geelong, Australia
[12]Dauten Family Center for Bipolar Treatment Innovation, Department of Psychiatry, Massachusetts General Hospital, Boston, MA, USA
[13]Harvard Medical School, Boston, MA, USA
[14]Murdoch Children's Research Institute, Royal Children's Hospital, Parkville, Australia
[15]James Cook University, Townsville, Australia

Objective: The objective of this systematic review and meta-analysis was to address a critical gap in literature by evaluating the association between in-utero and early childhood (ages 0-2) antibiotic exposure and the likelihood of psychiatric and neurocognitive problems in later life.
Methods: We conducted a systematic review and meta-analysis of studies evaluating in-utero or early childhood (ages 0-2) antibiotic exposure compared to unexposed

controls and later psychiatric or neurocognitive outcomes. We searched MEDLINE, PsychINFO and EMBASE on 20/11/23. Quality assessments included the GRADE certainty assessment and Newcastle-Ottawa Scale.

Results: Thirty studies were included (n=7,047,853 participants). There were weak associations between in-utero antibiotic exposure and later development of ASD (OR= 1.09, 95%CI: 1.02-1.16) and ADHD (OR=1.19, 95%CI: 1.11 to 1.27). Early-childhood exposure was associated with later development of ADHD (OR=1.33, 95%CI: 1.20 to 1.48), ASD (OR=1.19, 95%CI: 1.01 to 1.40), and MDD (OR=1.29, 95%CI: 1.04 to 1.60). However, in sibling-controlled studies, there were no associations between either exposure period and later ASD or ADHD. No studies in MDD used sibling-controls. All meta-analyses were rated very low certainty using the GRADE certainty assessment, largely owing to methodological and statistical heterogeneity, except for childhood antibiotic exposure and later ASD (sibling-controlled data), which was low certainty.

Conclusions: Weak evidence was found supporting the association between in-utero and early-life antibiotic exposure, and later neurodevelopmental outcomes. However, these associations were attenuated in studies that used sibling controls. Thus, genetic and familial confounding may explain the associations seen, and non-sibling-controlled data should be interpreted with caution.

Poster 29

Change of Short-Chain Fatty Acids Levels in Depression and Therapeutic Potential: A Meta-Analysis

Quang Le Do[1,2], Jane Pei-Chen Chang[2,3,4,5], Kuan-Pin Su[2,3,4,6]

[1]Graduate Institute of Nutrition, China Medical University, Taichung, Taiwan
[2]Mind-Body Interface Research Center (MBI-Lab), China Medical University Hospital, Taichung, Taiwan
[3]College of Medicine, China Medical University, Taichung, Taiwan
[4]Graduate Institute of Biomedical Sciences, China Medical University, Taichung, Taiwan
[5]Child and Adolescent Psychiatry Division, Department of Psychiatry, China Medical University Hospital,Taichung, Taiwan
[6]An-Nan Hospital, China Medical University, Tainan, Taiwan

Objective: Short-chain fatty acids (SCFAs), metabolism productions of the gut microbiota, play a crucial role in maintaining intestinal health, regulating immune responses, and influencing the central nervous system via the gut-brain axis. Recent studies have highlighted the potential impact of gut microbiota on mental health, with depression being a complex disorder affecting over 300 million people globally. Studies have found associations between lower SCFA levels and depressive symptoms, and SCFAs-targeted interventions have shown its potential. This meta-analysis aims to (1) summarize evidence on SCFA levels in depression and (2) assess the effectiveness of SCFAs interventions in improving depressive symptoms.
Methods: A literature search was conducted across PubMed, Embase, Web of Science, and Cochrane databases to identify studies published up to April 6, 2025. A total of 2711 articles were initially retrieved. After applying predefined inclusion and exclusion criteria, studies examining SCFA levels in depression and depressive-like models, as well as studies investigating SCFA interventions for depression or depressive-like models, were selected for qualitative synthesis.
Results: Among studies, most reported a significant reduction in key SCFAs, compared to healthy controls, suggesting a change in SCFAs profile in depression. The intervention studies demonstrated that SCFAs supplementation can influence depressive-like behavior in animal models.
Conclusions: The current evidence supports a potential role for SCFAs in both the pathophysiology and treatment of depression. Interventions targeting SCFAs production or function represent a promising adjunctive strategy, though further standardized and high-quality clinical trials are required to clarify their efficacy and underlying mechanisms.

Poster 30

Oxidative Stress Biomarkers and Antioxidants in Children and Adolescents With Attention Deficit Hyperactivity Disorder: A Meta-Analysis

Patricia Marest Suwindi[1,2], Ikbal Andrian Malau[2,3], Kuan-Pin Su[2,3,4,6], Jane Pei-Chen Chang[2,3,5,6]

[1]Graduate Institute of Nutrition, China Medical University, Taichung, Taiwan
[2]Mind-Body Interface Lab Research Center (MBI-Lab), China Medical University Hospital, Taichung, Taiwan;
[3]Graduate Institute of Biomedical Sciences, China Medical University, Taichung, Taiwan
[4]An-Nan Hospital, China Medical University, Tainan, Taiwan
[5]Child and Adolescent Division, Department of Psychiatry, China Medical University Hospital, Taichung, Taiwan
[6]College of Medicine, China Medical University, Taichung, Taiwan

Objectives: Attention deficit hyperactivity disorder (ADHD) is a common neurodevelopmental disorder. Given that the etiology of ADHD is multifactorial yet remains inconclusive, and oxidative stress has been implicated in the pathophysiology of ADHD. This meta-analysis is aimed to investigate the levels of oxidative stress and antioxidant markers in children and adolescents with ADHD.
Methods: This study was conducted in accordance with the PRISMA guidelines. Three electronic databases, including PubMed, Embase, and Web of Science, were used to retrieve studies that measured the levels of oxidative stress biomarkers through various sample platforms in children and adolescents with ADHD compared to a healthy control group, up to December 26, 2024.
Results: This meta-analysis is comprised of 18 studies, involving a total of 1,227 ADHD children and adolescents and 1,198 healthy controls that specifically were assessed for these biomarkers, including 8-hydroxy- deoxyguanosine (8-OHdG), malondialdehyde (MDA), nitric oxide (NO), superoxide dismutase (SOD), total antioxidant status (TAS), and total oxidation status (TOS). Compared to healthy control, children and adolescents with ADHD were associated with higher oxidative damage products that were indicated by 8-OHdG (P< .00001) and malondialdehyde (P=.0001), and the overall TOS (P<.00001). The primary antioxidant-enhancing enzymes, SOD was found lower in ADHD children and adolescents (P <.00001) and

POSTER

further TAS that indicated the overall activity of the antioxidants was also found to be lower (P<.00001). However, NO did not differ significantly between the two groups. **Conclusion:** This meta-analysis showed that ADHD children and adolescents have a higher level of oxidative stress, which results in damage to lipids and DNA, and lower levels of antioxidant activity in scavenging free radicals when compared to healthy controls.

Poster 31

Symptomatic and Cognitive Effects of D-Amino Acid Oxidase Inhibitors in Patients With Schizophrenia: A Meta-Analysis of Double-Blind Randomized Controlled Trials

Chun-Hung Chang[1,2,3,4]

[1] An Nan Hospital, China Medical University, Tainan, Taiwan
[2]College of Medicine, China Medical University, Taichung, Taiwan
[3]Shu-Zen Junior College of Medicine and Management, Kaohsiung, Taiwan 11
[4]Graduate Institute of Biomedical Sciences, China Medical University, Taichung, Taiwan

Background: D-amino acid oxidase inhibitors (DAOI) have demonstrated potential therapeutic benefits for schizophrenia and cognitive impairment; however, existing studies present conflicting results. This meta-analysis aimed to assess the symptomatic and cognitive effects of DAOI on the treatment of schizophrenia.
Methods: An electronic search was conducted using PubMed, Cochrane Systematic Reviews, andthe Cochrane Central Register of Controlled Clinical Trials for double-blinded, randomized controlled trials evaluating DAOI for the treatment of schizophrenia. Published trials up to November 2024 were included in the analysis. A random-effects model was employed to pool data for comparing the treatment effects of DAOI. Participants diagnosed with schizophrenia were recruited. Clinical and cognitive improvements were compared between baseline and post-DAOI treatment using standardized mean differences (SMDs) with 95% confidence intervals (CIs). Heterogeneity across the trials was assessed through funnel plots and the I^2 statistic.
Results: A total of five trials with 530 participants met the inclusion criteria. Four trials utilized sodium benzoate, while one trial employed luvadaxistat. The Positive and Negative Syndrome Scale (PANSS) was used in all studies to evaluate clinical symptoms, with four studies also assessed cognitive function. This analysis highlighted that DAOI surpassed the comparator in reducing the scores of PANSS total (SMD = -0.270, P = 0.035), PANSS positive (SMD = -0.399, P = 0.022), PANSS negative (SMD = -0.171, P = 0.026), and PANSS general psychopathology (SMD = -0.180, P = 0.019). Subgroup analyses identified significant effects in trials using

POSTER

sodium benzoate (SMD = 0.368, P = 0.021). Moreover, DAOI showed greater improvements in cognitive functions (SMD = 0.359, P = 0.017), with a better effect correlated with more female participants.

Conclusions: The findings of this meta-analysis suggest that DAOI may be effective in improving clinical symptoms and cognitive function in patients with schizophrenia. Further studies with larger sample sizes are needed to confirm these results.

Poster 33

Association of Underweight With Gait and Predicted Fall Risk in Patients With Chronic Obstructive Pulmonary Disease (COPD)

Quang Le Do[1,2], Khanh Tam Ta[3], Thanh Kien Lam[4], Ikbal Andrian Malau[2,6], Jane Pei-Chen Chang[2,5,7], Kuan-Pin Su[2,5,6,8]

[1]Graduate Institute of Nutrition, China Medical University, Taichung, Taiwan
[2]Mind-Body Interface (MBI-Lab) Research Center, China Medical University Hospital, Taichung, Taiwan
[3]Pham Ngoc Thach University of Medicine, Ho Chi Minh City, Viet Nam
[4]Faculty of Medical Technology, Van Lang University, Ho Chi Minh City, Viet Nam
[5]College of Medicine, China Medical University, Taichung, Taiwan
[6]Graduate Institute of Biomedical Sciences, China Medical University, Taichung, Taiwan
[7]Child and Adolescent Psychiatry Division, Department of Psychiatry, China Medical University Hospital, Taichung, Taiwan
[8]An-Nan Hospital, China Medical University, Tainan, Taiwan

Objective: Chronic obstructive pulmonary disease (COPD) is associated with a high fall risk, comparable to rates observed in the general elderly population (32%-35%). Falls in patients with COPD can lead to severe consequences, including fractures, injuries, prolonged hospitalization, reduced mobility, and increased dependency- factors that significantly impair quality of life. Heightened fall risk is primarily due to compromised musculoskeletal function and structural muscle damage, including muscle atrophy and weakness, which impair postural control and balance, resulting in gait abnormalities and risk of instability during movement. Nutritional depletion, particularly body weight loss, may contribute to these impairments, specific observational studies examining this association remain limited.
Methods: This prospective cohort study was conducted in 2024 at District 11 Hospital, Ho Chi Minh City, Vietnam. We enrolled 95 stable COPD outpatients and collected data on demographics, disease status, and fall history. Underweight was defined by a Body mass index (BMI) < 18.5. Gait assessments, including gait speed, were performed and video-recorded. The frequency of falls was monitored over a six-month follow-up.
Results: Underweight was significantly associated with gait abnormalities (p = 0.033), including reduced gait speed, and predicted a higher fall risk at six

months (OR = 7.889, p = 0.023; AUC = 0.732). Both gait abnormalities (AUC = 0.711) and slower gait speed (AUC = 0.711) were also associated with the fall risk.

Conclusions: Underweight and gait impairments are significant predictors of falls in COPD patients. Early screening and nutritional support may help reduce falls and improve outcomes in this vulnerable population.

Poster 37

The Efficacy of Curcumin in Reducing Depressive Symptoms: A Systematic Review

Torres, EAFS1 PhD, Augusti, L. L., Ibanhe, GAMAGE, EH, Marx, W, PhD Zanetti, MV, MD PHD De Santana, MLP PHD

Introduction: Curcumin, a bioactive compound derived from turmeric (Curcuma longa L.), has gained attention for its potential to alleviate depressive symptoms. This systematic review aims to evaluate the therapeutic efficacy of curcumin in managing depression, particularly as an adjunct or alternative to conventional treatments.
Objective: To assess the effectiveness of curcumin supplementation in reducing depressive symptoms.
Methodology: A systematic search was conducted in PubMed/MEDLINE, Web of Science, and EMBASE databases. Included studies were randomized clinical trials (RCTs) involving clinical or non-clinical populations, with no restrictions on age or sex. Only articles published in Portuguese or English between 2012 and 2023 were considered.
Results: Thirteen RCTs met the inclusion criteria, comprising a total of 1,028 participants. Among these, a majority demonstrated that curcumin supplementation was effective in reducing depressive symptoms in individuals diagnosed with major depressive disorder or presenting clinically relevant depressive symptoms. Risk of bias assessment revealed that six studies had low risk, six raised some concerns, and one was classified as high risk. However, considerable heterogeneity among the studies may limit the generalizability of the findings.
Conclusion: Despite some methodological limitations, the evidence suggests that curcumin may have a beneficial effect in reducing depressive symptoms, supporting its potential as a complementary intervention in the treatment of depression.

Poster 38

Food Security and Its Association With Symptoms of Depression, Anxiety and Stress

Jacqueline M Garcia[2] MSc, Marcus V Zanetti[2], MD, PhD Lara C C Natacci, PhD

[1]Elizabeth AFS Torres1 PhD

[1]School of Public Health, Universidade de São Paulo USP Brazil2 – Faculdade
[2]Sírio-Libanês, São Paulo, Brazil

Program of Treatment-Resistant Depression, Self-Injury and Suicidality, Instituto de Psiquiatria, Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil

Objectives: To analyze the association between food security andsymptoms of depression, anxiety, and stress.

Study Design: A cross- sectional study was conducted with a sample of 248 individuals aged 18 to 59 years, recruited through social media, public schools and social centers.

Methods: Data collection was carried out using an online questionnaire divided into modules: Socioeconomic Data, Mood(DASS-21), and the Brazilian Food Insecurity Scale. Chi-squared test of independence followed by Cramer's V was performed to assess the association between sociodemographic characteristics, symptoms of depression, anxiety, stress, and food insecurity. Multinomial logistic regression was conducted to evaluate the influence of food insecurity on thelevels of depression, anxiety, and stress.

Results: A significant association was observed between food insecurity and the severity of mental symptoms(Chi-square test, $p < 0.05$). Furthermore, Cramer's V coefficient revealed a moderate to strong association between food insecurity and higher depression, anxiety and stress scores.

Conclusions: These findings suggest that food insecurity is associated with more severe levels of depression, anxiety, and stress. It is essential to recognize the complexities of thisrelationship and promote policies and programs that ensure access to healthy foods and support mental health.

Poster 39

Native Fruits From Brazil With an Impact on Inflammation: A Systematic Review

Maria Carolina Zsigovics Alfino[1], Alex Feitoza[1], Paulo Sérgio G.Oliveira[2] PhD, Elizabeth Aparecida F. S. Torres[1] PhD

[1]School of Public Health, University of São Paulo, São Paulo, Brazil
[2]Anhembi Morumbi University, São Paulo, Brazil

Introduction: Neuroinflammation, involving chronic activation of glial cells in the central nervous system, plays a key role in the development of neurodegenerative and mood disorders. Dietary components—particularly phytochemicals from fruits—are known to modulate inflammatory pathways.Brazil's vast biodiversity includes native fruits rich in bioactive compounds such as anthocyanins and flavonoids, with promising anti-inflammatory andneuroprotective properties.

Objective: To systematically review thescientific evidence on the effects of Brazilian native fruits on systemic and neuroinflammation, considering their phytochemical composition andunderlying mechanisms of action.

Methodology: A systematic review was conducted in five databases (PubMed, Embase, Science Direct, Scopus, Web of Science) for articles published between 2005 and 2025 using the terms "brazil AND fruits AND native AND inflammation". Inclusion criteria comprised in vitro, in vivo, observational, clinical, and review studies in English, Portuguese, or Spanish. After screening 71 studies, 27 were included.

Results: Fruits such as *Euterpe oleracea* (açaí), *Euterpe edulis* (juçara), *Plinia cauliflora* (jabuticaba), *Paullinia cupana* (guaraná), and *Solanum diploconos* (tomatinho do mato) demonstrated anti- inflammatory effects via reduction of cytokines (IL-6, TNF-?) and inhibition of NF-? B signaling. These findings suggest that native fruits mayserve as neuroprotective agents and play a preventive role in chronic and neuroinflammatory diseases.

POSTER

Poster 40

Neuroprotective Potential of Açaí (Euterpe oleracea): An Integrative Review of Its Potential Beneficits on Mood, Obesity, and Cardiovascular Disease

Thais RB Guerra[1], MD student and PhD Marcus, V Zanetti[2], MD, PhD, AnaCarolina B Leme[3], PhD, Elizabeth AFS Torres[1]PhD

[1]Scholl of Public Health – Universidade de São Paulo USP
[2]Faculdade Sírio-Libanês, São Paulo, Brazil

Program of Treatment-Resistant Depression, Self-Injury and Suicidality, Instituto de Psiquiatria, Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil

Introduction: Growing evidence suggests that diet quality is closely linkedto mental health, particularly concerning depression. Açaí (*Euterpeoleracea*), a native fruit of the Brazilian Amazon, is rich in bioactive compounds with antioxidant and anti-inflammatory properties, which may confer neuroprotective benefits.

Objectives: To review the available evidence on the functional properties of açaí and its potential beneficitswith depression, obesity, and cardiovascular disease.

Materials and Methods: A literature review was carried out in the Virtual Health Library (BVS-BIREME) and PubMed databases. The following Health Sciences Descriptors (DeCS/MeSH) were used: Açaí, Depression, Obesity, and Cardiology, along with related keywords based on the study's guidingquestion.

Results: A total of 35 studies were included: 10 in vitro studies, 19 using animal models, and 6 involving human participants. Although clinical studies are still limited, preclinical findings suggest a positive effectof açaí consumption in mood, metabolic and cardiovascular measures.

Conclusion: Açaí consumption shows promise as a complementary strategy in nutritional psychiatry, with potential benefits formental health and cardiometabolic conditions, particularly in reducing depressive symptoms and supporting weight management.

POSTER

Poster 41

Potential and Pitfalls: Evaluating ChatGPT's Accuracy in Depression Assessment Using Standardized Patients

Chun-Hung Chang MD

Aim: To examine the potential of ChatGPT in evaluating depressionseverity.
Materials and Methods: In October 2024, trained staff simulated standardized depressed patients following the HAMD (Hamilton Rating Scale for Depression) guidelines. Mental health experts, also trained in administering the HAMD, assessed the severity of depression, and ten HAMD interview sessions were recorded. These recordings were transcribed verbatim. The Chinese version of the HAMD manual was uploaded to ChatGPT, and the ten Chinese transcripts were then assessed by ChatGPT according to the HAMD criteria in the Chinese manual. Eachtranscript was rated three times, using a different interface for each evaluation. After the Chinese assessments, the transcripts were translated into English, and the evaluations were repeated three times, again using different interfaces for each.
Results: The mean (SD) HAMD scores for the standardized patients, as assessed by both expert evaluations and ChatGPT in both Chinese and English, were as follows: expert evaluations yielded a mean score of 14.30 (SD = 9.37), while ChatGPT's assessments in Chinese resulted in a mean of
14.80 (SD = 10.13). For the English-language assessments, ChatGPT provided a mean score of 14.10 (SD = 10.32). A one-way ANOVA revealedno significant differences in HAMD scores across the four groups. Further subgroup ANOVA analysis, categorizing patients into mild, moderate, and severe depression groups, also did not show any significant results. However, it was noted that ChatGPT displayed overestimated score errors when evaluating certain items in both the Chinese and English HAMD versions—specifically for items 4, 5, 6, and 13, where severity ratings of 0-2were frequently misclassified as 3. Additionally, ChatGPT appeared to make errors in calculating the total HAMD score.
Conclusion: While ChatGPT shows potential in assessing depression severity in standardized patients, caution is required due to errors in scoringand calculation, particularly in relation to certain items and the overall score. These limitations must be addressed before ChatGPT can be reliably used as a tool for depression evaluation.

POSTER

Poster 43

Canadian Physicians' Perceptions of Nutritional Psychiatry: An Exploratory Survey Study

Caroline Wallace, PhD; Trinity Lowthian, BSc; Mariana Reyes, BSc; Marie-Claude Audet, PhD

Background: Although the field of nutritional psychiatry (NP) is increasingly recognized in the research and clinical settings, there is little knowledge of whether physicians managing mental health concerns are familiar with evidence-based NP approaches and the degree to which they are accepting of and implementing these approaches within their practice.

Objective: The primary objective of this study is to evaluate the awareness, degree of acceptance, and implementation of NP approaches among Canadian physicians who treat mental health disturbances. A secondary objective is to understand how best to provide NP-related education to increase uptake in the medical community.

Methods: Canadian physicians currently practicing in psychiatry or primary care were invited to complete a 13-item online questionnaire between October 2023 and March 2025.

Results: 116 participants completed the survey. While 53.4% of physicians were familiar with the field of NP, 63.8% rated their general knowledge of NP as poor (1-2 on 5-point Likert scale). Notably, interest in the field was reported as high (4-5 on 5-point Likert scale) and if provided with more training opportunities for evidence-based NP approaches, 73.3% of physicians responded as very to extremely likely to incorporate them into practice. Preferred educational approaches included continuing medical education courses, online courses, and conferences.

Conclusions: Among physicians treating mental health conditions in Canada, self-reported knowledge of NP approaches was low, but interest was high. Understanding these perceptions will be critical to inform how best to communicate with and educate physicians on NP approaches to increase uptake in clinical practice.

Poster 44

Gender Differences in the Association Between Vegetarianism and Mental Health: Evidence From the Taiwan Biobank

Chia-Ying Sung, MSc; Shaw-Ji Chen, PhD; Jerry Cheng-Yen Lai, PhD; Chi-Chiang Yang, PhD

Previous studies have suggested that dietary patterns may influence mental health through mechanisms such as differences in nutrient intake, inflammation, and gut microbiota composition. However, the association between vegetarianism and psychological outcomes remains inconsistent. This cross-sectional study used data from the Taiwan Biobank (2015–2023) to examine the association between vegetarianism and mental health, specifically symptoms of depression and anxiety measured by the PHQ-4. After excluding individuals with cancer or psychiatric disorders, 42,421 participants were analyzed, including 3,808 vegetarians (9.0%), most of whom were female (70.1%). Compared to non-vegetarians, vegetarians had lower rates of smoking, alcohol consumption, and obesity ($p<0.001$). Logistic regression showed that being female, younger than 55 years, and smoking were associated with higher risks of depression and anxiety, whereas regular physical activity was protective ($p<0.001$). Tea and coffee consumption were protective factors for anxiety ($p<0.01$), but not for depression. Although vegetarianism was not significantly associated with depression (OR = 1.09, 95% CI [0.90–1.32]) or anxiety (OR = 1.08, 95% CI [0.91–1.27]), however, further sex-stratified analysis revealed that vegetarian men had higher risks of depression (OR = 1.43, 95% CI [1.02–2.00]) and anxiety (OR = 1.38, 95% CI [1.01–1.91]), whereas vegetarian women showed no significant associations (depression: OR = 0.96, 95% CI [0.76–1.21]; anxiety: OR = 0.99, 95% CI [0.81–1.20]). Similar Results: were found in the previous study, which also reported higher risks of depression among vegetarian men. These findings highlight the need for further longitudinal studies to explore the gender-specific effects of vegetarianism on mental health.

Poster 45

The Nutrition Facts of US Comfort Foods by Race/Ethnicity and Discrimination: Findings From the "Eating in America" Study

Dorothy T. Chiu, PhD, MSPH; Alejandra Lopez, BA; Jillian Chellis, BA;
A. Janet Tomiyama, PhD

Objective: "Comfort foods" are eaten in response to negative affect or stimuli. Many comfort foods are energy dense, highly palatable, and processed. How preferences vary with one's racial/ethnic identity and related perceptions of discrimination remains unknown.
Methods: Eating in America Study respondents listed their top three comfort foods among other data. Nutritional content (e.g., calories, fat, carbohydrate, protein, sodium), hyper-palatability and Nova food processing classification were determined. Comfort food preferences were analyzed via person-level means for each nutritional attribute, comparing individual's preferred comfort foods as a set by: 1) self-reported race/ethnicity, 2) frequency of perceived discrimination, and 3) distinct combinations of these categories. Oneway ANOVAs assessed between- group differences and nonparametric tests evaluated trends with discrimination.
Results: Among study adults (n=1,760; 35.1% non-white), n=1,278 (72.6%) persons nominated 1 nutritionally-codable comfort food and n=709 (40.3%) endorsed race/ethnicity-related discrimination. Overall, across racial/ethnic groups, significant ($p<0.05$) differences in the preference for ultra-processed comfort foods were observed. Observed trends also included 1) higher average caloric, protein, fat, carbohydrate, and sodium content per serving for preferred comfort foods and 2) lower mean "dessert"-like (high fat, high sugar), "bread/snack"-like (high carbohydrate, high sodium), and ultra-processed comfort foods with increasing discrimination. No significant overall racial/ethnic differences or trends were observed for saturated fat, sugar, and fiber content. Some nutritional differences between racial/ethnic groups were not directly linked to race-related discrimination.
Conclusions: Nutritional content of preferred comfort foods varies with race/ethnicity and related discrimination. Specifics depend on the nutritional indicator. Nuanced understanding of this can further support public health.

Poster 46

A Nutrition Intervention Experience in the Care of an Adolescent Patient With Anorexia.

Chen-Ling Chang, Bachelor's degree Ling Shen, Master's degree
Chen-chen, Wen, Master's degree

Eating disorders are complex illness with profound psychosocial and physical consequences, including high rates of mortality. Anorexia nervosa is an eating disorder defined by restriction of energy intake relative to requirements, leading to a significantly low body weight.

This case report presents the clinical nutrition care for a 10-year-old girl, spanning from October, 2024 to February, 2025, who experienced bullying at school, causing her weight drop from 42 to 23.3 kg within a year, prompting her family to notice her onset of fasting behaviors. The patient was brought to our hospital by her mother due to pitting edema in both lower limbs, which had persisted for two weeks. Her body mass index (BMI) was 11.4 kg/m^2, below the 1st percentile for age and admitted for further management.

Before commencing dietary treatment, the nutritionist focused primarily on understanding the individual's psychological aspects and family dynamics regarding diet. During the intervention period, efforts were made to ease family tension, enhance the child’s nutritional knowledge and ability, and establish a shared understanding of healthy eating between the child and family members. Simple cooking skills were also introduced to support this process. As a result, conflicts with family members were resolved, the child received more care and support from her family, and she began to feel joy rather than fear toward eating. Three months later, the girl's weight increased to the 50th to 75th percentile of the growth curve, and her family was able to provide suitable foods according to the nutritionist's recommendations, fostering positive interaction among family members.

Poster 47

Dose-Response Relationship of Omega-3 Supplementation in Bipolar Disorder: A Meta-Analysis of Randomized Controlled Trials

Jia-Chun Wu[1,2], Halliru Zailani[1,2], Kuan-Pin Su[2,3,4], Jane Pei-Chen Chang[2,5,6]

[1]Graduate Institute of Nutrition, China Medical University, Taichung,Taiwan.
[2]Mind-Body Interface Lab Research Center (MBI Lab), China MedicalUniversity Hospital, Taichung, Taiwan.
[3]Graduate Institute of Biomedical Sciences, China Medical University,Taichung, Taiwan.
[4]An-Nan Hospital, China Medical University, Tainan, Taiwan.
[5]Child and Adolescent Division, Department of Psychiatry, China MedicalUniversity Hospital, Taichung, Taiwan.
[6]College of Medicine, China Medical University, Taichung, Taiwan.

Background: Bipolar disorder (BD) is a chronic condition with mood instability and functional impairments with unsatisfactory pharmacological medications. Omega-3 polyunsaturated fatty acids (n-3 PUFAs), particularly eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), show promise, but previous findings are inconsistent. Previous meta- analysis included few studies and focused only on acute phases of BD. This updated meta-analysis includes both acute and maintenance phases to enable phase-specific subgroup analyses and evaluation of the optimal dosage and formulation of n-3 PUFAs in BD.

Methods: This study was conducted in accordance with the PRISMA guidelines. A comprehensive literature search was performed across four electronic databases, including PubMed, Embase, Web of Science, and the Cochrane Library, from inception up to April 1, 2025. Randomized controlled trials (RCTs) were included if they met the following criteria: (1) conducted on patients diagnosed with BD. (2) assessed depressive and manic symptoms using validated rating scales; and (3) reported the dosage and duration of n-3 PUFAs supplementation. Only studies published in English were included. Data synthesis and meta-analysis will be performed using RevMan version 5.4.1 with a random-effects model.

Results: A total of 838 studies were retrieved, of which 11 studies (n = 630) were eligible. We are currently running the analysis and the results will be presented at the conference.

POSTER

Conclusions: We hypothesize that n-3 PUFAs supplementation will be more beneficial in the depressive state than manic or maintenance stages of BD, and EPA-predominant formulation will be more effective in improving the clinical symptoms of BD than DHA-predominant formulations.

Poster 48

Nutritional Support for Addiction Recovery: A Systematic Review

Melissa M Heath, MS; Christina M Ramirez, MS; John M Lyerly, BS;
Christopher B Jenney, PhD, MSc, IMBA

We assessed preclinical and clinical trials for evidence of any nutrient reducing craving or relapse in abstinent populations. DATA SOURCES: We searched SCOPUS and PubMed. DATA EXTRACTION: Eliminating duplicates, searches yielded an initial 18,472 studies with a final count of 38 relevant studies. We assessed articles for inclusion using the following criteria: (1) Clinical or preclinical studies of any dietary nutrient; (2) studies of drugs of abuse including alcohol, nicotine, and cannabis; (3) randomized controlled trials; (4) studies during abstinence with the outcome of reduction of craving or relapse. Studies of participants undergoing MAT (e.g. Methadone) or smoking cessation (nicotine or cannabis) were included. This review followed PRISMA guidelines. CONCLUSION: Three minerals, one amino acid, and polyunsaturated fatty acid supplementation were found to significantly reduce craving or relapse. For each nutrient, possible mechanisms of action are explored.

Poster 51

COVID-19 Quarantine and Its Association With Weight Status, Dietary Behavior, and Body Image Among Adolescents

Ayesha Zafar Iqbal[1,2*], Kai-Jie Yang[1], En-Ling Cheng[1,4], Jane Pei-Chen Chang[1,3,4]

[1]Mind-Body Interface Research Center (MBI-Lab), China Medical University Hospital, Taichung, Taiwan;
[2]Graduate Institute of Nutrition, China Medical University, Taichung, Taiwan;
[3]Child and Adolescent Psychiatry Division, Department of Psychiatry, China Medical University Hospital, Taichung, Taiwan;
[4]College of Medicine, China Medical University, Taichung, Taiwan

Background and Aim: The COVID-19 pandemic has significantly impacted eating behaviors, especially in adolescents, who are vulnerable to developing unhealthy eating habits, body dissatisfaction, and eating disorders. This study aimed to explore the association between COVID-19 confinement and body image perceptions and eating behaviors in Taiwanese adolescents.
Method: A cross-sectional study was conducted with adolescents aged 13-16 years from middle and high schools in Taiwan between September 2023 and March 2024. Participants completed a questionnaire assessing demographics, body image, eating behaviors, and COVID-19 experiences. Chi-square analysis was performed to examine the association between quarantine status and body image and eating behaviors, with gender-based subgroup analyses.
Results: Among the 528 adolescents assessed (69.1% female; 30.9% male), the majority maintained a normal weight irrespective of quarantine status ($p = 0.06$). In female adolescents, quarantine was significantly associated with a higher prevalence of obesity, whereas those not subjected to quarantine were more likely to be underweight or overweight ($p = 0.015$). No significant relationship was observed between quarantine and body image concerns. Nevertheless, quarantine was associated with a higher frequency of weight-control exercise ($p = 0.038$), particularly among male adolescents ($p = 0.045$), and with increased difficulty controlling eating, notably among female adolescents ($p = 0.032$).
Conclusion: Quarantine was associated with an increased prevalence of

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obesity and greater difficulty in regulating eating behaviors, particularly among female adolescents, while male adolescents exhibited a higher frequency of engagement in weight-control exercise. However, crosssectional design limits causal inference, and pre-existing conditions may have influenced behaviors. Longitudinal studies are needed to clarify these associations.

Poster 53

Association Between EAT-Lancet Planetary Health Diet and Mental Health Among Taiwanese Adolescents

Ying Hsiao MSc, Yi-Chen Huang PhD

Background: The prevalence of mental disorders among children and adolescents in Taiwan is approximately 31.6%, with neurodevelopmental and behavioral disorders being the most common. Without early prevention, mental disorders may increase the risk of future health problems and place a burden on healthcare services. The EAT-Lancet Planetary Health Diet (PHD), characterized by a high intake of plant-based, nutrient-dense foods and low consumption of red meat and added sugars, has been associated with lower risks of depression and anxiety in adults. However, evidence among adolescents remains limited. This study aimed to evaluate the association between adherence to the PHD and mental health among Taiwanese adolescents.

Method: A cross-sectional analysis was conducted using data from 13–18-year-old participants in the 2013–2016 Nutrition and Health Survey in Taiwan (NAHSIT). Dietary intake was assessed using 24-hour dietary recall to calculate PHD adherence scores. Mental health was measured using the 5-item Brief Symptom Rating Scale (BSRS-5), with scores >15 indicating severe emotional distress.

Result: Among participants, 24.2% were classified as having severe emotional distress, and a PHD score of 45.1 or above was categorized as belonging to the highest adherence group (Tertile 3, T3). Moreover, adolescents in the T3 group had higher household income and a lower risk of severe distress compared to those in T1 (OR:0.72, 95% CI=0.45–1.17). Each 5-point increase in PHD score was associated with an 5% reduction in risk (OR:0.95, 95% CI=0.88–1.02), although the association did not reach statistical significance.

Conclusion: These findings indicate a potential association between higher adherence to the PHD and lower risk of emotional distress among adolescents.

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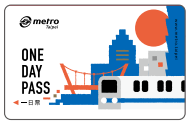

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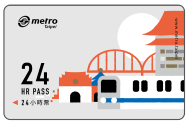

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