

NUTRITIONAL PSYCHIATRY: A PILOT SURVEY ON DIETARY PRACTICES AMONG MENTAL HEALTH PROFESSIONALS

Antonella Litta^{1,2}, Annamaria Nannavecchia³, Antonella Vacca², Maria Vincenza Mino⁴,
Vincenzo Favia⁵ & Antonio Ventriglio⁶

¹Department of Precision and Regenerative Medicine and Ionian Area (DiMePRE-J),
University of Bari "Aldo Moro", Bari, Italy

²Mental Health Department, ASL Taranto, Taranto, Italy

³AReSS Puglia- Regional Strategic Agency for Health and Social, Bari, Italy

⁴Psychiatric Rehabilitation Center "Don Tonino Bello"- Assoc. M.I.T.A.G. Onlus, Brindisi, Italy

⁵Istituto Tumori Giovanni Paolo II, IRCCS, National Cancer Institute, Bari, Italy

⁶Department of Clinical and Experimental Medicine, University of Foggia, Foggia, Italy

SUMMARY

Background: Nutritional psychiatry is gaining recognition as a complementary approach to improving mental health. Although evidence supports the role of diet and nutraceuticals in psychiatric care, little is known about their integration into clinical practice by mental health professionals. This study investigates the knowledge, attitudes, and use of nutritional strategies among Italian psychiatrists and psychologists.

Methods: A cross-sectional survey was administered to 110 mental health professionals to assess their knowledge of nutritional psychiatry and the practical application of dietary interventions.

Results: Most participants reported discussing nutrition with patients and using dietary strategies, though inconsistently. Psychiatrists were more frequently engaged in nutritional counseling and in preventive strategies for somatic comorbidities. The Mediterranean diet emerged as the most commonly recommended model. Gender differences were noted, with female psychiatrists reporting significantly higher self-rated knowledge.

Conclusions: Italian mental health professionals show growing interest in nutritional psychiatry, yet its routine adoption remains limited by gaps in training and institutional support. Clear guidelines, accessible education, and interdisciplinary collaboration - including with dietitians - are essential to foster its integration into psychiatric care.

Key words: nutritional psychiatry - mental health professionals - diet

* * * * *

INTRODUCTION

Nutritional Psychiatry (NP) investigates how dietary patterns influence mental health, emerging as a growing field of research and clinical interest. Nutrition-based strategies have shown promise in both preventing and treating neuropsychiatric disorders, as macro- and micronutrients play critical roles in neurodevelopment, cognition, and psychiatric pathophysiology via mechanisms such as modulation of the gut microbiota, neurotransmitters, neuropeptides, and immune responses (Loughman et al. 2021; Jacka et al. 2017). Individuals with mental illness frequently display unhealthy eating habits, disordered eating behaviours, and nutritional deficiencies - factors that exacerbate symptoms and increase the risk of chronic physical conditions, contributing to premature mortality (Offor et al. 2021; Fadnes et al. 2022). As such, nutrition is now recognized as a modifiable determinant of mental health, with evidence supporting its role in reducing symptom severity, enhancing treatment outcomes, and improving overall well-being (Sarris et al. 2015; Firth et al. 2019; Jacka et al. 2017). Nutritional interventions may enhance the effectiveness of both pharmacological and psychotherapeutic treatments. Reflecting this, the International

Society for Nutritional Psychiatry Research (ISNPR) has advocated for the integration of dietary factors into mental health frameworks, endorsing nutraceuticals as adjunctive or standalone treatments in mild cases (Sarris et al. 2015; Fenton et al. 2024). Similarly, the World Psychiatric Association's 2023–2026 Action Plan promotes lifestyle-based strategies - including nutrition, physical activity, and sleep hygiene - as core components of psychiatric care (Wasserman et al. 2024). Recent clinical trials have confirmed the benefits of Mediterranean-style diets in alleviating depressive symptoms and improving functional outcomes (Parletta et al. 2019; Bayes et al. 2022; Jacka et al. 2017). Moreover, micronutrient supplementation has shown promise in managing ADHD, particularly in children, with reductions in inattention and emotional dysregulation and high acceptability in randomized controlled trials (Rucklidge et al. 2014; Johnstone et al. 2022). Despite these findings, most Mental Health Professionals (MHPs) receive little or no formal training in nutrition, which remains underrepresented in psychiatric education. Foundational knowledge in dietary counselling is essential to guide patients and enable appropriate referrals. Surveys across Europe and the US reveal minimal curricular coverage of NP (Mörkl et al. 2021),

while a global survey across 52 countries confirmed widespread lack of formal training among psychiatrists and psychologists (Mörkl et al. 2021). Australian and Chinese studies echo these concerns: Minhas et al. (2024) reported inadequate NP training in New South Wales, and Mo et al. (2024) identified male gender and lower education as predictors of limited mental health literacy in Chinese tertiary hospitals. To address these gaps, initiatives like the Physicians Association for Nutrition (2024) aim to integrate nutrition into medical education. Targeted training for MHPs could strengthen nutrition's role in comprehensive psychiatric care. Our previous survey in Apulia highlighted interest in involving dietitians but revealed uncertainty about their competencies and roles within mental health teams (Litta & Ferrandina 2023), pointing to the need for clearer interdisciplinary collaboration.

Building on a prior analysis of the first two sections of our national survey - focused on knowledge and attitudes toward NP (Litta et al. 2024) - this study examines the third section, which explores the actual implementation of nutritional strategies in psychiatric practice across Italy.

METHODS

We used the Italian version of the questionnaire developed by Mörkl et al. (2021), translated via a double-blind method by two independent professionals (A.L. & M.F.). Linguistic adaptations were made to preserve semantic equivalence with the original items.

The anonymous, self-rated questionnaire was administered via Google Forms between May and June 2024. A total of 110 Italian mental health professionals (46 adult psychiatrists, 3 child psychiatrists, and 61 psychologists) voluntarily completed the online survey.

Data were collected in compliance with current privacy regulations. The survey link was distributed through social media and email, allowing access without collecting personal data. Google Forms was set to anonymous mode, preventing storage of identifying information. Participants were informed of full anonymity and voluntary participation and gave informed consent electronically.

Inclusion criteria comprised adult and child psychiatrists and psychologists; exclusion criteria included medical professionals from other specialties and absence of consent. The survey, accessible via computer, tablet, or smartphone, took approximately 10–15 minutes to complete. Responses were recorded using a 10-point Likert scale (1 = very low; 10 = very high).

The questionnaire consisted of three sections: demographic data, knowledge of nutritional psychiatry, and implementation of nutritional strategies in mental health care. The third section also included five key attitudinal statements, whose results are reported in the first five rows of Table 3.

Data from the first two sections were previously published (Litta et al. 2024), highlighting a widespread need for further research in nutritional psychiatry, with psychologists more often expressing the need for targeted training. Our findings support the development of structured educational programs for psychiatrists and psychologists to integrate nutritional awareness into a biopsychosocial framework. This paper focuses on results from the third section regarding the implementation of nutritional strategies.

Statistical analysis

Data analysis was conducted using RStudio (v.2024.04.2). Normality was assessed via the Shapiro–Wilk test. Quantitative variables were compared using the Kruskal–Wallis test. Categorical variables were analyzed using Chi-squared or Fisher's exact test, as appropriate. A two-tailed p-value < 0.05 was considered statistically significant.

RESULTS

A total of 110 mental health professionals - 61 psychologists, 46 adult psychiatrists, and 3 child psychiatrists - completed the questionnaire. Participants rated the overall nutritional status of the Italian population on a 10-point Likert scale (1 = very poor; 10 = excellent). The most frequent response was 5 ("neither low nor high"), followed by 4 ("moderately low"). Psychiatrists gave significantly higher ratings than psychologists ($p < 0.05$).

Regarding individuals with mental disorders, most rated their nutritional status as "low" or "very low," with no significant group differences ($p = 0.40$). Hospital meal quality was most often rated as "neither low nor high," though those in psychiatric rehabilitation or social care settings tended to rate it "moderately high." Psychiatrists reported more frequent discussions of diet with patients than psychologists ($p < 0.05$). Only 20.0% ($n = 22$) indicated that metabolic screening programs were active in their region; 35.5% ($n = 39$) answered "no" and 43.6% ($n = 48$) "I don't know." Psychiatrists were more likely to report their existence ($p < 0.05$). A large majority (83.0%, $n = 83$) considered metabolic screening very useful (score ≥ 8), with no significant differences across professions. Regarding use of nutritional interventions (dietary advice, supplements, lifestyle counseling), 57.0% ($n = 60$) used them occasionally, 25.0% ($n = 27$) rarely/never, and 18.0% ($n = 19$) always/often. Psychiatrists reported significantly higher use ($p < 0.05$). A similar pattern emerged for interventions aimed at preventing somatic comorbidities: 44.0% used them sometimes, 34.0% never, and 22.0% always; psychiatrists were again more engaged ($p < 0.05$).

Asked whether nutrition could replace pharmacotherapy in mild cases, only psychiatrists responded: 6.1% “always,” 10.0% “often,” 19.0% “sometimes,” 29.0% “almost never,” and 35.0% “never.” No inferential analysis was conducted. Regarding nutrition as an adjunct to pharmacotherapy, 6.4% answered “always,” 36.0% “most of the time,” 40.0% “sometimes,” 11.0% “almost never,” and 6.4% “never.” Again, only psychiatrists responded, and no group comparisons were performed. The most frequently recommended diets were Mediterranean (31.0%), low-carb (26.0%), national guidelines-based (24.0%), other (17.0%), and ketogenic (2.4%). Supplement use was reported by 59.0% (n = 61); 83.0% (n = 88) had used them personally. Additionally, 40.0% (n = 40) recommended probiotics, and 37.0% (n = 36) advised specific diets - most often Mediterranean. Psychiatrists were more likely to recommend specific diets (p < 0.05). Overall, 67.0% (n = 72) had personally followed a diet for over one month, with no professional-group differences (p = 0.38). No differences by gender or profession were found in lifestyle recommendations (e.g., exercise, sleep hygiene; p = 0.38). For food allergy/intolerance testing, 51.0% reported recommending it “sometimes,” 46.0% “never/almost never,” and 2.9% “always/most of the time,” with no significant differences (p = 0.82). Agreement with the five key statements showed no significant professional differ-

ences. However, female psychiatrists reported significantly higher self-rated knowledge of nutritional psychiatry (p < 0.05). Tables 1, 2 summarize perceptions and practices; Table 3 shows differences by gender and profession; Tables 4, 5 report supplement use and lifestyle interventions in psychiatric care.

DISCUSSION

This pilot study explored how Italian mental health professionals incorporate nutritional psychiatry into practice and which strategies they deem relevant to improve nutritional care. Findings are consistent with international data showing limited formal training despite professionals’ willingness to learn (Mörkl et al. 2021; Minhas et al. 2024; Mo et al. 2024). Although formal education is lacking, 57.0% reported occasional use of nutritional interventions and 18.0% regular use, indicating partial but inconsistent adoption. Psychiatrists reported higher engagement than psychologists, especially regarding nutritional strategies to prevent physical comorbidities - likely reflecting their medical background and institutional roles. A major gap emerged between the perceived utility of metabolic screening (83.0%) and its actual implementation (20.0%), underscoring the need for structural support to promote integrated care. Supplement (59.0%) and dietary plan (37.0%) recommendations were widespread, especially among psychiatrists.

Table 1. Perceived Nutrition-Related Beliefs and Practices among Mental Health Professionals

Item	Adult and child psychiatrists (N=49) mean±s.d.	Psychologists (N=61) mean±s.d.	p-value
Perception of nutritional status of the Italian population (neutral vs low)	5.52±1.38	4.57±1.63	0.003
Perception of nutritional status of individuals with mental disorders in Italy	3.42±1.23	3.25±1.81	0.400
Perceived nutritional quality of hospital meals in Italy	4.5±1.75	3.89±1.84	0.096
Talks frequently with patients about diet	6.71±1.91	5.44±2.25	0.003
Metabolic screening considered very useful (≥8/10)	8.25±.47	8.18±1.63	0.952

Note: s.d.: standard deviation

Table 2. Self-Reported Behaviors and Use of Nutritional Interventions among Mental Health Professionals

Items	Adult and child psychiatrists (N=49)	Psychologists (N=61)	p-value
Metabolic screening in own region (yes)	31.0 % (n=15)	11.0% (n=7)	0.007
Use of nutritional interventions in psychiatric care (always or often)	27.0% (n=13)	10.0% (n=6)	0.006
Use of nutritional interventions for somatic comorbidities prevention (always or often)	38.0% (n=18)	8.60% (n=5)	0.001
Recommended a specific diet (yes)	50.0% (n=20)	24.0% (n=13)	0.012
Followed a diet for more than one month (yes)	62.0% (n= 29)	72.0% (n=43)	0.377
Recommended allergy/intolerance testing (always or often)	2.10 % (n= 1)	3.50% (n= 2)	0.823

Table 3. Perceptions and knowledge on Nutritional Psychiatry: A gender and profession-based comparison

	Category	n	mean \pm s.d.	p-value
Diet influences both risk factors and outcomes of mental disorders.	Psych-F	30	4.66 \pm 2.57	0.1749
	Psych-M	19	5.89 \pm 2.92	
	Psychol-F	55	5.47 \pm 2.40	
	Psychol-M	5	3.80 \pm 2.59	
Nutrition and nutraceuticals should be considered essential in psychiatric care.	Psych-F	30	4.17 \pm 2.32	0.0728
	Psych-M	19	5.11 \pm 2.81	
	Psychol-F	55	5.60 \pm 2.46	
	Psychol-M	5	4.00 \pm 2.45	
Psychiatrists/psychologists are well-positioned to provide nutritional advice.	Psych-F	30	4.59 \pm 2.31	0.3844
	Psych-M	19	5.53 \pm 2.59	
	Psychol-F	55	5.15 \pm 2.69	
	Psychol-M	5	3.80 \pm 1.92	
Empowering patients to adopt dietary changes may increase perceived control.	Psych-F	30	4.69 \pm 2.51	0.6314
	Psych-M	19	5.42 \pm 2.43	
	Psychol-F	55	5.35 \pm 2.34	
	Psychol-M	5	4.80 \pm 2.68	
Dietitians should be part of the mental health team to manage weight and promote lifestyle changes.	Psych-F	30	5.34 \pm 2.68	0.1455
	Psych-M	19	6.21 \pm 3.17	
	Psychol-F	55	6.84 \pm 3.09	
	Psychol-M	5	5.40 \pm 3.51	
Self-assessed knowledge of Nutritional Psychiatry	Psych-F	30	5.77 \pm 1.98	0.0022
	Psych-M	19	5.32 \pm 1.73	
	Psychol-F	55	4.00 \pm 2.14	
	Psychol-M	5	4.00 \pm 1.87	
Perceived average nutritional value of food served in psychiatric rehabilitation facilities	Psych-F	30	5.55 \pm 2.25	0.6505
	Psych-M	19	6.56 \pm 1.74	
	Psychol-F	55	5.75 \pm 2.22	
	Psychol-M	5	5.33 \pm 0.57	

Note: Psych: Psychiatrists; Psychol: Psychologists; F: female; M: Male; n: number; s.d.: standard deviation

Table 4. Nutritional Supplements Recommended

Supplement	Frequency (%)
Vitamin D	43
Folic acid	38
Vitamin B12	37
Magnesium	37
Iron supplement	34
Omega-3	27
Vitamin B6	23
N-acetylcysteine	15
Zinc supplement	10
Selenium supplement	8
Vitamin A	8
Vitamin E	7
Probiotics	2
Homotaurine	1
Melatonin	1
Pea-lut	1
Potassium supplement	1
Souvenaid	1
Ensure plus	1
Coline	1
Astaxanthin	1
Saffron	1
Pea	1
Other	12

Table 5. Lifestyle Interventions Recommended

Lifestyle Recommendation	Frequency (%)
Physical Activity	96
Dietary coaching	23
Cooking courses	6
Other non specified	16
Almost never recommended	9

The absence of standardized training raises concerns about appropriateness and safety, reinforcing the need for evidence-based guidelines and the formal integration of dietitians into mental health teams. As previously noted (Litta & Ferrandina 2023), the dietitian's role remains under-recognized, reflecting systemic barriers. While agreement with key statements on the role of nutrition did not differ by profession ($p > 0.05$), female psychiatrists rated their nutritional knowledge significantly higher (Kruskal-Wallis $p = 0.0022$), mirroring broader trends in which female clinicians show greater engagement with holistic care (Delpech et al. 2020). The mediterranean diet was the most frequently recommended, consistent with robust evidence linking it to reduced depressive symptoms and improved functioning (Parletta et al. 2019; Jacka et al. 2017; Firth et al. 2024; Ventriglio et al. 2020). Some also recommended ketogenic or low-carb diets; while promising

for metabolic health, psychiatric evidence remains limited and controversial (Brietzke et al. 2018), highlighting the need for ongoing training in evidence-based nutritional psychiatry. Limitations include potential selection bias, the cross-sectional design, limited power for subgroup analyses, and the lack of formal validation of the Italian questionnaire, which was used for exploratory purposes.

CONCLUSIONS

This study confirms both the promise and the current limitations of nutritional psychiatry in Italy. Bridging the gap between clinical interest and evidence-based application requires educational reform, interdisciplinary collaboration, and institutional policies to formally integrate nutritional strategies into psychiatric services. These findings support incorporating nutritional psychiatry into training and care frameworks. National health systems, academic institutions, and professional bodies should promote structured education, teamwork, and research on nutritional interventions in psychiatry. Embedding dietitians in community mental health teams and implementing metabolic screening protocols could substantially improve psychiatric care quality and scope.

Acknowledgements: None.

Conflict of interest: None to declare.

Contribution of individual authors:

Antonella Litta: conceptualization, manuscript preparation, writing, and bibliographic research;

Annamaria Nannavecchia: writing contributions and statistical analysis;

Antonella Vacca, Maria Vincenza Mino & Vincenzo Favia: data collection;

Antonio Ventriglio: supervision, writing and critical revision of the manuscript.

All authors approved the final manuscript.

References

1. Ashley Fenton, Kathryn Neiling, Maureen Ndzi, Colleen King Goode, Katherine G. Humphrey, *Nutrition for Mental Health: Guidance for Clinical Practice, The Journal for Nurse Practitioners, Volume 20, Issue 10, 2024, 105209, ISSN 1555-4155*
2. Bayes J, Schloss J, Sibbritt D. *The effect of a Mediterranean diet on the symptoms of depression in young males (the "AMMEND: A Mediterranean Diet in MEN with Depression" study): a randomized controlled trial. Am J Clin Nutr. 2022 Aug 4;116(2):572-580. doi: 10.1093/ajcn/nqac106*
3. Brietzke E, Mansur RB, Subramaniapillai M, Balanzá-Martínez V, Vinberg M, González-Pinto A, Rosenblat JD, Ho R, McIntyre RS. *Ketogenic diet as a metabolic therapy for mood disorders: Evidence and developments. Neurosci Biobehav Rev. 2018 Nov;94:11-16. doi:10.1016/j.neubiorev.2018.07.020. Epub 2018 Jul 31. PMID: 30075165.*
4. Delpach R, Bloy G, Panjo H, Falcoff H, Ringa V, Rigal L. *Physicians' preventive practices: more frequently performed for male patients and by female physicians. BMC Health Serv Res. 2020 Apr 20;20(1):331. doi: 10.1186/s12913-020-05136-2. PMID: 32312327; PMCID: PMC7168941*
5. Fadnes LT, Økland JM, Haaland ØA, Johansson KA. *Estimating impact of food choices on life expectancy: A modeling study. PLoS Med. 2022 Feb 8;19(2):e1003889. doi: 10.1371/journal.pmed.1003889. Erratum in: PLoS Med. 2022 Mar 25;19(3):e1003962. doi:10.1371/journal.pmed.1003962. PMID: 35134067; PMCID: PMC8824353.*
6. Firth J, Marx W, Dash S, Carney R, Teasdale SB, Solmi M, Stubbs B, Schuch FB, Carvalho AF, Jacka F, Sarris J. *The Effects of Dietary Improvement on Symptoms of Depression and Anxiety: A Meta-Analysis of Randomized Controlled Trials. Psychosom Med. 2019 Apr;81(3):265-280. doi: 10.1097/PSY.0000000000000673. Erratum in: Psychosom Med. 2020 Jun;82(5):536. doi:10.1097/PSY.0000000000000807. Erratum in: Psychosom Med. 2021 Feb-Mar 01;83(2):196. doi: 10.1097/PSY.0000000000000914. PMID: 30720698; PMCID: PMC6455094.*
7. Jacka FN. *Nutritional Psychiatry: Where to Next? EBioMedicine. 2017 Mar;17:24-29. doi:10.1016/j.ebiom.2017.02.020. Epub 2017 Feb 21. PMID: 28242200; PMCID: PMC5360575.*
8. Johnstone JM, Hatsu I, Tost G, Srikanth P, Eiterman LP, Bruton AM, Ast HK, Robinette LM, Stern MM, Millington EG, Gracious BL, Hughes AJ, Leung BMY, Arnold LE. *Micronutrients for Attention-Deficit/Hyperactivity Disorder in Youths: A Placebo-Controlled Randomized Clinical Trial. J Am Acad Child Adolesc Psychiatry. 2022 May;61(5):647-661. doi:10.1016/j.jaac.2021.07.005. Epub 2021 Jul 22. Erratum in: J Am Acad Child Adolesc Psychiatry. 2022 Aug; 61(8):1066. doi:10.1016/j.jaac.2022.04.021. Erratum in: J Am Acad Child Adolesc Psychiatry. 2023 May;62(5):607*
9. Litta A, Ferrandina M. *Diet and Nutrition: Which Role for Mental Health? Psychiatr Danub 2023 Oct;35(Suppl 2):359-363.*
10. Litta A, Nannavecchia AM, Ferrandina M, Favia V, Minò MV, Vacca A. *Nutrition in Mental Health: Insight from a Survey Among Psychiatrists and Psychologists. Psychiatr Danub 2024 Sep;36(Suppl 2):236-240.*
11. Loughman A, Staudacher HM, Rocks T, Ruusunen A, Marx W, O Apos Neil A, Jacka FN. *Diet and Mental Health. Mod Trends Psychiatry. 2021;32:100-112. doi: 10.1159/000510422. Epub 2021 May 6. PMID: 34032648.*
12. Minhas J, McBride JC. *Perceptions of Mental Health Professionals on Nutritional Psychiatry as an Adjunct Treatment in Mainstream Psychiatric Settings in New South Wales, Australia. Cureus. 2024 Mar 25; 16(3):e56906. doi:10.7759/cureus.56906. PMID: 38665727; PMCID: PMC11045159.*
13. Mo, G., Zhu, E., Guo, X. et al. *Nutrition literacy level of medical personnel in tertiary hospitals: evidence from a cross-sectional study. Arch Public Health 82, 124 (2024).*

14. Mörkl S, Stell L, Buhai DV, Schweinzer M, Wagner-Skacel J, Vajda C, Lackner S, Bengesser SA, Lahousen T, Painold A, Oberascher A, Tatschl JM, Fellingner M, Müller-Stierlin A, Serban AC, Ben-Sheetrit J, Vejnovic AM, Butler MI, Balanzá-Martínez V, Zaja N, Rus-Prelog P, Strumila R, Teasdale SB, Reininghaus EZ, Holasek SJ. 'An Apple a Day?': Psychiatrists, Psychologists and Psychotherapists Report Poor Literacy for Nutritional Medicine: International Survey Spanning 52 Countries. *Nutrients*. 2021 Mar 2;13(3):822. doi: 10.3390/nu13030822.
15. Offor SJ, Orish CN, Frazzoli C, Orisakwe OE. Augmenting Clinical Interventions in Psychiatric Disorders: Systematic Review and Update on Nutrition. *Front Psychiatry* 2021 May 5;12:565583. doi: 10.3389/fpsy.2021.565583
16. Parletta, N., Zarnowiecki, D., Cho, J., Wilson, A., Bogomolova, S., Villani, A., Itsiopoulos, C., Niyonsenga, T., Blunden, S., Meyer, B., & O'Dea, K. (2019). A Mediterranean-style dietary intervention supplemented with fish oil improves diet quality and mental health in people with depression: A randomized controlled trial (HELFIMED). *Nutritional Neuroscience*, 22(7), 474–487.
17. Physicians Association for Nutrition. PAN International – Medical education for health professionals. 2024. Available from: <https://pan-int.org/global-change/>
18. Rucklidge JJ, Frampton CM, Gorman B, Boggis A. Vitamin–mineral treatment of attention-deficit hyperactivity disorder in adults: double-blind randomised placebo-controlled trial. *British Journal of Psychiatry*. 2014; 204(4):306-315.
19. Sarris J, Logan AC, Akbaraly TN, Amminger GP, Balanzá-Martínez V, Freeman MP, Hibbeln J, Matsuoka Y, Mischoulon D, Mizoue T, Nanri A, Nishi D, Ramsey D, Rucklidge JJ, Sanchez-Villegas A, Scholey A, Su KP, Jacka FN; International Society for Nutritional Psychiatry Research. Nutritional medicine as mainstream in psychiatry. *Lancet Psychiatry*. 2015 Mar;2(3):271-4. doi: 10.1016/S2215-0366(14)00051-0. Epub 2015 Feb 25. PMID: 26359904.
20. Ventriglio A, Sancassiani F, Contu MP, Latorre M, Di Salvatore M, Fornaro M, Bhugra D. Mediterranean Diet and its Benefits on Health and Mental Health: A Literature Review. *Clin Pract Epidemiol Ment Health*. 2020 Jul 30;16(Suppl-1):156-164. doi: 10.2174/1745017902016010156. Erratum in: *Clin Pract Epidemiol Ment Health*. 2021 Mar 26;17:9. doi: 10.2174/1745017902117010009. PMID: 33029192; PMCID: PMC7536728.
21. World Medical Association. (2013). World Medical Association Declaration of Helsinki: Ethical principles for medical research involving human subjects. *JAMA*, 310(20), 2191–2194. <https://doi.org/10.1001/jama.2013.281053>

Correspondence:

Antonella Litta, MD, PhD

Department of Precision and Regenerative Medicine and Ionian Area (DiMePRE-I),

University of Bari "Aldo Moro"

Bari, Italy

E-mail: a.litta@hotmail.it