

NUTRITION IN MENTAL HEALTH: INSIGHT FROM A SURVEY AMONG PSYCHIATRISTS AND PSYCHOLOGISTS

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SUMMARY

Introduction: There is growing evidence supporting dietary interventions in major depressive disorders and other mental disorders. The WPA Action Plan 2023-2026 prioritises several actions including the improvement and the preservation of mental health through the adoption of healthy lifestyle choices illustrated in the Healthy Lifestyles Hub and research. Greater emphasis on physical activity, nutrition and sleep hygiene between patients and psychiatric staff is an objective of WPA Action Plan 2023-2026.

Methods: The survey was conducted from May to June 2024 using Google Forms. A questionnaire was administered to a sample of mental health professionals and consisted of statements investigating specific knowledge in nutritional Psychiatry and adoption of strategies to improve nutritional interventions in mental health. With this study, we aimed to investigate insight and attitudes on nutrition in mental health among a sample of psychiatrists and psychologists resident in Italy.

Results: 110 participants (61 psychologists, 46 adult psychiatrists and 3 child psychiatrists) agreed to participate in our survey. 89.2% (n=91) of them worked in southern Italy. The majority of participants were female (77.98%) and reported working in a Mental Health Centre (n=41, 37.27%), followed by psychiatric residential facilities (n=22, 20%), private practice (n=19, 17.27%), hospital (n=14, 12.73%), university research centre (n=4, 3.64%), other non specified institute (n=10; 9.09%). When asked the importance of a nutritional approach in the context of mental disorders no difference was found between the professional groups (p-value 0.653). Female gender is most represented, although not significantly (p-value 0.161). The need for further research in the field of nutritional psychiatry is widely considered by all mental health professionals, but without professional (p-value=0.416) and gender differences (p-value=0.426). Psychologists statistically significantly reported the need for specific training in nutritional psychiatry (p-value 0.004). We found a significant coefficient between number of years of working experience and nutritional training needs among all health professionals (tau -0.169; p-value = 0.022).

Conclusions: Specific nutrition training courses both for adult and child psychiatrists and psychologists are needed in order to increase awareness on nutrition as a well-being contributing factor in the biopsychosocial model.

Key words: nutritional psychiatry - biopsychosocial model - diet

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INTRODUCTION

In recent years, there is growing evidence supporting the impact of nutrition on mental health. Beneficial effects of adjunctive nutritional approaches for the prevention and treatment of numerous neuropsychiatric disorders were broadly demonstrated. A balanced diet rich in essential nutrients is crucial to support brain function and could help to prevent and manage mental health disorders. Brain health and overall mental wellness could be improved through individual and informed dietary choices (Firth et al. 2019). A recent qualitative study across three countries (Australia, Germany and Austria) highlighted that diet-related support is urgently needed for people with serious mental illness underlying the role of nutrition in a biopsychosocial approach (Mueller-Stierlin et al. 2022).

Integrating healthy lifestyle practices such as a balanced diet and physical exercise could supplement and amplify the effects of existing pharmacotherapies and psychotherapies. A new integrated paradigm whe-

reby nutritional considerations are integrated into psychiatric practice was also advocated by the International Society for Nutritional Psychiatry Research (ISNPR). The ISNPR consensus position statement supported an integrative psychiatric model, with diet and nutrition as central determinants of both physical and mental health (Sarris et al. 2015). According this statement, evidence-based nutraceuticals should be considered as either stand alone therapies (mainly in cases of less severe mental disorders, non-tolerance of medication, nutrient deficiencies, or patient choice), or as adjunctive interventions with psychotropic medications to augment treatment efficacy.

The WPA Action Plan 2023-2026 prioritises several actions including the improvement and the preservation of mental health through the adoption of healthy lifestyle choices illustrated in the Healthy Lifestyles Hub and research. Greater emphasis on physical activity, nutrition and sleep hygiene both between patients and psychiatric staff is an objective of WPA Action Plan 2023-2026 (Wasserman et al. 2024).

However, despite its considerable role, nutritional literacy of mental health professionals appears scarce. A recent study conducted in 52 countries found that most psychiatrists and psychologists had not received sufficient training in nutrition (Mörkl et al. 2021). Specific nutrition training courses for mental health professionals are needed in order to increase awareness on nutrition as a well-being contributing factor in the biopsychosocial model.

Awareness on this topic among psychiatrists and psychologists appears crucial in order to pursue the implementation of healthy dietary habits. Our previous survey conducted on employees of Mental Health Departments in the Apulia region showed that the majority of mental health operators interviewed had recognized the importance of health professionals specialized in nutrition such as dietitians in managing the nutritional needs of psychiatric patients. Data highlighted the importance of nutrition in mental health and the need for greater recognition of the role of dietitians in the treatment of psychiatric patients (Litta et al. 2023).

With this study, we aimed to investigate insight and attitudes on nutrition in mental health among a sample of psychiatrists and psychologists resident in Italy.

METHODS

We adapted to the Italian reality the questionnaire developed by Mörkl et al. (2021). The questionnaire was translated into Italian using a double blind technique performed by two independent professional experts in the field (A.L. & M.F.). We carried out a full language adaptation and we aimed to maintain the original semantic meaning of the questionnaire's questions while also allowing for some necessary linguistic modifications.

The survey was conducted from May to June 2024 and the questionnaire was anonymous and self-rated, accessible via Google forms. The sample comprised 110 Italian mental health professionals (adult psychiatrists, child psychiatrists and psychologists) who voluntarily completed the on-line questionnaire.

All the data have been treated in accordance with the current legislation in order to guarantee security and privacy. The questionnaire was distributed via social networks to national colleagues. A standard, non-personalized online link was sent to participants via email, granting them access to the contents of the survey.

The questionnaire consisted of three parts: the first part assessing the demographic characteristics of the participants, the second part investigating specific knowledge in nutritional psychiatry and the third part assessing the implementation of strategies to improve nutritional intervention in mental health. Data from the first and the second part were analyzed in this study.

Participants provided informed consent electronically before participation. Psychologists and adult and child psychiatrists were recruited. Exclusion criteria were: medical doctors in other specialties, absence of consent to take part in the online survey. The survey could be completed via a computer, tablet, or smartphone and took approximately 10-15 min to complete. Following the consent page, the survey consisted of: demographical data, perceived importance of nutrition, self-rated knowledge, formal education, and current use in clinical practice. Questions were answered on a 10-point Likert scale from 1 (very low) to 10 (very high).

Statistical analyses

The analyses were conducted using RStudio 2024.04.2. Descriptive results of demographic variables are shown. We tested the normality distribution of data using Shapiro-Wilk test and then we performed an ANOVA or a Kruskal-Wallis-Test for quantitative variables, or χ^2 test or Fisher Exact Test to identify differences between professional groups.

Professional subgroup and gender analyses were concluded for specific knowledge in nutritional psychiatry. Correlation between variables (current rated knowledge and rated importance of "nutritional psychiatry" and rated "importance of the discussion of nutrition with patients") was calculated with Spearman's correlation coefficient. Level of statistical significance is set to 0.05 (two-tailed).

RESULTS

110 participants (61 psychologists, 46 adult psychiatrists and 3 child psychiatrists) agreed to participate in our survey. 89.2 % (n=91) of them worked in southern Italy. The majority of participants were female (77.98%) and reported working in a Mental Health Centre (n=41, 37.27%), followed by psychiatric residential facilities (n=22, 20%), private practice (n=19, 17.27%), hospital (n=14, 12.73%), *university research centre* (n=4, 3.64%), other non specified institute (n=10; 9.09%). The number of years of working as mental health professional was 19.27±11.27 years. Table 1 shows characteristics of the sample.

Adopting "sometimes" nutritional approach for the treatment of the patients was the answer mostly reported (n=56, 51.4%) followed by "most of the time" (n=28, 25.69%), "always" (n=11; 10.09%), "never" (n=7, 6.42%), "almost never" (n=7, 6.42%).

When asked the importance of a nutritional approach in the context of mental disorders no difference was found between the professional groups (p-value 0.653). Female gender is most represented, although not significantly (p-value 0.161). Regarding the importance of discussing nutritional aspects in the clinical interview we found no difference between the professional groups (p-value = 0.599) and between male and female participants (p-value = 0.297).

Table 1. Characteristics of survey participants (N=110)

| | |
|----------------------------|---|
| Sex (F) | 73% (N=85) |
| Working country | 89% Southern Italy (n=91) 6% Western Italy (n=6) 5% Central Italy (n=5) |
| Working experience (years) | 19.27±11.27 years |
| Employment place | 37.27% Mental Health Centre (n=41) 20% Psychiatric residential facilities (n=22) 17.3% Private practice (n=19) 12.7% Hospital (n=14) 3.6% University research centre (n=4) 9% Other non specified institute (n=10) |
| Professional groups | 55% Psychologist (n=61) 42% Adult psichiatrists (n=46) 3% Child psichiatrists (n=3) |

Table 2. The most frequent methods preferred by survey participants in order to improve their knowledge in nutritional psychiatry

| Frequency | Freq | % | % Cum. |
|--|------|-------|--------|
| Distance cme courses | 14 | 13.21 | 13.21 |
| Interdisciplinary meetings with specialists in nutrition | 11 | 10.38 | 23.58 |
| In-person cme courses | 10 | 9.43 | 33.02 |
| Distance cme courses, Interdisciplinary meetings with specialists in nutrition | 5 | 4.72 | 37.74 |
| Distance cme courses, Master's/Specialization courses | 5 | 4.72 | 42.45 |
| Distance cme courses, Interdisciplinary meetings with specialists in nutrition, Scientific Journals | 4 | 3.77 | 46.23 |
| In-person cme courses, Distance cme courses | 4 | 3.77 | 50.00 |
| Non-cme update courses, Interdisciplinary meetings with specialists in nutrition | 3 | 2.83 | 52.83 |
| Distance cme courses, Non-cme update courses, Interdisciplinary meetings with specialists in nutrition | 3 | 2.83 | 55.66 |
| Distance cme courses, Non-cme update courses, Master's/Specialization courses | 3 | 2.83 | 58.49 |
| In-person cme courses, Distance cme courses, Interdisciplinary meetings with specialists in nutrition, Scientific Journals | 3 | 2.83 | 61.32 |
| In-person cme courses, Distance cme courses, Master's/Specialization courses | 3 | 2.83 | 64.15 |
| In-person cme courses, Distance cme courses, Master's/Specialization courses, Interdisciplinary meetings with specialists in nutrition | 1 | 0.94 | 95.28 |
| In-person cme courses, Interdisciplinary meetings with specialists in nutrition, Scientific Journals | 1 | 0.94 | 96.23 |
| In-person cme courses, Master's/Specialization courses | 1 | 0.94 | 97.17 |
| In-person cme courses, Scientific Journals | 1 | 0.94 | 98.11 |
| Master's/Specialization courses | 1 | 0.94 | 99.06 |
| Scientific Journals, Other | 1 | 0.94 | 100.00 |

Among psychologists (n=61), to the question whether had received specific nutrition education during postgraduate studies, 47.5 % of them (n=29) responded they hadn't received nutrition education and 31.1% (n=19) responded they had followed optional training on this topic. 19.7% (n=12) had followed optional training courses. Only one psychologist reported mandatory courses. Among adult and child psychiatrists (n=49), to the question whether had received specific nutrition education during postgraduate studies, the majority of them (63.3%, n=31) responded they hadn't received nutrition education and 30.6% (n=15) responded they had followed optional training on this topic. 2 followed some nutritional information during the medical *degree* programme and only one followed mandatory courses.

70.91% (n=78) of all participants responded that they were not aware of training courses on nutrition for the prevention and treatment of psychiatric disorders. Only 18 mental health professionals admitted having participated in specific training courses on the nutritional care of patients with psychiatric disorders. The need for further research in the field of nutritional psychiatry is widely considered by all mental health professionals, but without professional (p-value=0.416) and gender differences (p-value= 0.426). Psychologists statistically significantly reported the need for specific training in nutritional psychiatry (p-value 0.004). We found a significant coefficient between the number of years of working experience and nutritional training needs among all health professionals (tau -0.169; p-value = 0.022).

92% (n=45) of adult and child psychiatrists and 97% (n=59) responded that they would like to expand their knowledge of nutritional psychiatry, without professional and gender differences.

The most frequent methods preferred by survey participants in order to improve their knowledge in nutritional psychiatry are shown in table 2.

DISCUSSION

Nowadays nutritional psychiatry is considered an important pillar in the biopsychosocial care model (Dinan 2023, Uribarri & Vassalotti 2020). The association of dietary recommendations with the psychopharmacological and/or psychotherapeutic treatment of most psychiatric disorders could have a significant role in the holistic approach to the therapeutic path of such disorders, with both direct and indirect effects.

On the one hand, in fact, several studies confirmed biological mechanisms such as neuroinflammation and intestinal microbiota underlying an improvement in clinical symptoms (Dinan 2023). On the other hand, providing specialist-delivered nutrition support could give patients with severe mental illness a sense of plea-

sure, enjoyment and well-being during food experience and improve mood, physical health and overall quality of life (Mueller-Stierlin et al. 2022).

However, despite the scientific evidence and some treatment guidelines in support of this relationship, the implementation of nutritional psychiatry into routine clinical practice remains limited. In our study mental health professionals most frequently reported having adopted the nutritional approach "sometimes" for the treatment of patients and only 11 reported having always included nutritional interventions. As emerges from our survey, in agreement with Mörkl' s results (2021), the limited implementation of nutritional psychiatry into routine clinical practice could be due to a lack of specific nutrition training among mental health professionals. The majority of survey participants had not received specific nutrition training but also almost all were willing to increase their knowledge. Psychologists reported a statistically significantly greater need for specific training in nutritional psychiatry. This could be explained by the fact that the psychiatrists had had medical training and so could have had some nutrition literacy.

Moreover, in our study female participants seem be more attentive to the nutritional approach, as demonstrated by a greater number of female participants recruited. Females may be more interested in participating in nutrition surveys as they tend to have greater interest in healthy diets and lifestyles, as already underlined by Fagerly et al. (1999).

From our data emerges the lack of previous specific nutritional training but also the willing to expand knowledge on this topic, preferably through distance and in-person courses and interdisciplinary meetings with nutrition specialists. Recently, the US Academy of Nutrition and Dietetics pointed out the significant role that registered dietitian nutritionists could have in physicians' nutritional training. Trained physicians could be more likely to consult with nutrition specialists and refer patients for medical nutrition therapy, which could improve medical care and reduce health care costs (Hark et al. 2017).

CONCLUSIONS

Our results suggest that advocating for nutrition training among mental health professionals could be a compelling strategy in order to increase awareness on healthy lifestyles having positive effects on mental well-being, as recently promoted by the WPA Action Plan 2023-2026.

Integrating nutrition into the clinical practice of psychologists and psychiatrists and providing evidence-based nutritional advice represents an interesting mental health challenge to address in the coming years. A correct dietary regime can be an easily accessible and powerful intervention tool acting as a well-being contributing factor in the biopsychosocial model.

Greater awareness and further research are necessary to understand the pivotal role of the diet in mental health and to integrate evidence-based effective nutrition interventions into routine clinical practice.

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Antonella Litta: contribution to write the first draft of manuscript, review & editing, supervision.

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