MEDIA PENELITIAN DAN
PENGEMBANGAN KESEHATAN
Vol 35 No 4, Desember 2025

e-ISSN: 2338-3445
p-ISSN: 0853-9987

BRIDGING NUTRITION AND MENTAL HEALTH: THE CULTURAL AND SOCIAL DYNAMICS IN SOUTHEAST ASIA

Menghubungkan Nutrisi dan Kesehatan Mental: Dinamika Budaya dan Sosial di Asia Tenggara

Aprilia Sariwiyanti[1*], Sri Sundari[1]
[1]Master Program of Hospital Administration, Universitas Muhammadiyah Yogyakarta, Yogyakarta, Indonesia
*Email: sundari_purbo@umy.ac.id

ABSTRAK

Penelitian ini bertujuan untuk menganalisis hubungan antara gizi dan kesehatan mental di Asia Tenggara, dengan mempertimbangkan faktor budaya, sosial, dan ekonomi yang memengaruhi pola makan masyarakat. Metode penelitian yang digunakan adalah pendekatan kualitatif dengan analisis data sekunder dari berbagai sumber, termasuk laporan WHO, FAO, dan jurnal ilmiah, serta menggunakan perangkat lunak Nvivo 12 Plus untuk analisis tematik. Hasil penelitian ini menunjukkan bahwa Indonesia mencatat sedikit penurunan prevalensi gizi buruk dari 8,3% menjadi 6,5%, sedangkan prevalensi gangguan mental tetap berada pada angka 18%. Pola makan tradisional merupakan tema yang paling dominan dengan frekuensi tertinggi (30), yang menunjukkan bahwa pola makan ini sering disebut sebagai pelindung alami terhadap gangguan mental. Ditambah lagi, zat gizi seperti omega-3, vitamin D, magnesium, dan zat besi memiliki pengaruh yang signifikan terhadap kesehatan mental. Salah satu faktor yang mempengaruhi terjadinya gangguan mental positif adalah tradisi kuliner yang berhubungan yang sangat kuat sehingga menjadi budaya dimasyarakat. Kondisi relevan ini yang menunjukkan bahwa Indonesia masuk kategori kerawanan pangan dengan skor 8 sehingga berdampak pada kebutuhan gizi dengan kesehatan mental. Penyebabnya adalah urbanisasi Indonesia yang tinggi sehingga berdampak signifikan pada kesehatan mental. Ditambah faktor lain, pola makan tradisional yang kaya nutrisi sering kali digantikan oleh makanan cepat saji yang tinggi gula, garam, dan lemak, yang dapat berkontribusi pada peningkatan prevalensi gangguan mental seperti depresi dan kecemasan.

Kata kunci: *Asia Tenggara, budaya, dinamika sosial, gizi, kesehatan mental*

ABSTRACT

This study aims to analyze the relationship between nutrition and mental health in Southeast Asia, taking into account the cultural, social and economic factors that influence people's diets. The research method used was a qualitative approach with secondary data analysis from various sources, including WHO reports, FAO, and scientific journals, and used Nvivo 12 Plus software for thematic analysis. The results of this study show that Indonesia recorded a slight decrease in the prevalence of malnutrition from 8.3% to 6.5%, while the prevalence of mental disorders remained at 18%. Traditional diet was the most dominant theme with the highest frequency (30), indicating that this diet is often mentioned as a natural protector against mental disorders. Plus, nutrients such as omega-3, vitamin D, magnesium and iron have a significant influence on mental health. One of the factors that influence the occurrence of positive mental disorders is a culinary tradition that is very strong so that it becomes a culture in society. This condition is relevant, indicating that Indonesia is in the category of food insecurity with a score of 8, which impacts nutritional needs and mental health. The cause is Indonesia's high urbanization, which has a significant impact on mental health. Traditional diets rich in nutrients are often replaced by fast food high in sugar, salt and fat, which can contribute to an increase in the prevalence of mental disorders such as depression and anxiety.

https://doi.org/10.34011/jmp2k.v35i4.2996

e-ISSN: 2338-3445
p-ISSN: 0853-9987

Keywords: culture, mental health, nutrition, social dynamics, Southeast Asia

INTRODUCTION

Mental health has become a global concern, with evidence showing that adequate nutrition is essential for psychological well-being and cognitive functioning [1]. Deficiencies in nutrients such as B vitamins, omega-3 fatty acids, and magnesium have been consistently linked to higher risks of depression, anxiety, and stress, whereas micronutrient-rich diets can enhance mood and emotional stability [2]. This connection has gained increasing relevance amid rapid dietary transitions occurring worldwide, including in Southeast Asia.

In Southeast Asia, modernization and urbanization have driven significant shifts from traditional diets—characterized by fresh vegetables, fish, herbs, and plant-based proteins—to processed foods high in sugar, saturated fat, and salt [3]. These changes, combined with faster and more stressful lifestyles, heighten dependence on convenient yet nutrient-poor foods, thereby raising the risk of mental health disorders associated with disrupted neurochemical balance [4]. At the same time, cultural and social dynamics continue to shape food choices across the region. Culinary traditions influenced by history, religion, and community norms remain strong, though increasingly challenged by Westernized dietary patterns and consumptive lifestyles [5]. In Indonesia, for instance, sugar consumption remains high—29% of the population consumes real sugar and 22% uses reduced sugar—contributing to an annual intake of over 20 liters of sweetened beverages per person [6]. Social relationships, intergenerational food practices, and religious norms further mediate dietary behaviors and their mental health implications, as shown by studies highlighting the influence of traditional markets, generational shifts toward fast food, and religious dietary restrictions [7]

The rise of mental health problems globally and in Southeast Asia underscores the impact of these dietary transformations. WHO estimates show more than 300 million people suffer from depression worldwide, while Indonesia alone reported over 9 million individuals with mental disorders in 2018. Nutritional imbalances—including inadequate intake of fruits, vegetables, and essential micronutrients—have been directly associated with increased prevalence of depression and anxiety [8]. Evidence from the Global Burden of Disease Study similarly links low consumption of nutrient-dense foods with worsening mental health outcomes. Meanwhile, fast food and sugary drink consumption in Southeast Asia continue to escalate sharply; Thailand has experienced a sixfold increase in fast-food intake, and nearly half of urban Filipino children consume more processed foods than traditional meals, contributing to both obesity and mental health issues [9].

Socio-economic changes further intensify these dietary shifts. Rapid urbanization, rising incomes, demanding work environments, and time constraints encourage reliance on calorie-dense convenience foods, especially in cities such as Jakarta, Manila, and Bangkok. These pressures elevate stress levels, which, when coupled with poor dietary quality, worsen mental health conditions among urban populations [10]. Inequalities in access to nutritious food compound the issue: although incomes have risen, many households—particularly in rural or low-income settings—still lack access to balanced, affordable diets [11]. This is especially problematic for children, with approximately 20% in the region experiencing undernutrition that may impair cognitive development and increase future mental health risks.

Despite growing concerns, research directly integrating nutrition, culture, and mental health in Southeast Asia remains limited. Existing nutrition surveys often address anemia, obesity, or micronutrient deficiencies without examining mental health outcomes [18]. Similarly, studies on socio-economic factors rarely account for cultural complexities that shape dietary behavior [19]. There is also a lack of comprehensive data linking dietary patterns to mental health, as national-level nutritional assessments frequently

https://doi.org/10.34011/jmp2k.v35i4.2996

e-ISSN: 2338-3445
p-ISSN: 0853-9987

exclude psychological indicators [12]. Psychosocial interventions, though increasingly researched, often fail to incorporate local wisdom and cultural contexts essential for effectiveness in Southeast Asia [13].

Given these gaps, studying the relationship between nutrition and mental health in Southeast Asia offers significant potential for developing culturally grounded and contextually relevant strategies. Integrating dietary patterns with social, cultural, and economic dynamics can provide a deeper understanding of how nutrition shapes mental well-being across the region's diverse populations. This research aims to analyze the linkage between nutritional intake, dietary behaviors, and mental health while accounting for the cultural, social, and economic factors influencing food choices in Southeast Asia. These findings are expected to generate insights that support public health interventions and policies [14], ultimately promoting healthier dietary practices and strengthening mental health outcomes across Southeast Asian communities.

METHODS

This study uses a qualitative approach, relying mainly on secondary sources. The data came from a review of 85 relevant sources. These included (62) articles from reputable international journals indexed in Scopus, (5) academic books, (11) national and regional policy reports, and (7) documents from the World Health Organisation (WHO) or the Food and Agriculture Organisation (FAO). The study used a time series approach, with data collected from 2018 to 2024. The data was retrieved in January, as part of the necessary data gathering process. This research study examines the connections between nutritional and dietary variables, mental health, and social interactions. The review applied specific inclusion criteria, selecting studies published within the last seven years, research conducted in Southeast Asian populations, and literature explicitly linking nutrition, diet, and mental health within the region's cultural and social dynamics. Exclusion criteria encompassed studies unrelated to Southeast Asia, publications lacking empirical or policy relevance, and literature focusing solely on biomedical or clinical outcomes without considering sociocultural factors. All collected data were synthesised to identify the relationship between nutrition, dietary patterns, and mental health in Southeast Asia.

Table 1. Research Variables, Data Types, and Relevant Search Keywords

Variable	Definition (Academic)	Type of Data Needed	Data Sources	Relevant Search Keywords
Nutritional Intake	Patterns of nutrient consumption, including macro- and micronutrients influencing physical and mental health.	FAO datasets, national nutrition surveys, journal articles.	FAO, UNICEF, national health surveys, Scopus journals.	*nutrition intake*, *dietary patterns*, *micronutrient deficiency*, *nutrition transition*
Dietary Patterns	Traditional vs modernized diets and their shift due to globalization and urbanization.	Journal articles, policy reports, Southeast Asian nutrition reports.	Scopus, WHO, national policy reports.	*traditional diet*, *processed food consumption*, *food culture*, *nutrition transition Southeast Asia*
Mental Health Outcomes	Prevalence of depression, anxiety, and psychological distress related to dietary factors.	WHO mental health reports, epidemiological studies, national surveys.	WHO Global Health Observatory, Scopus, PubMed.	*mental health prevalence*, *depression dietary factors*, *nutritional psychiatry*, *anxiety nutrition correlation*
Socio-cultural Dynamics	Cultural norms, food practices, family eating behavior, social pressure, and lifestyle changes in Southeast Asia.	Ethnographic studies, social surveys, policy reports, books.	Scopus journals, academic books, ADB reports.	*socio-cultural determinants of diet*, *cultural food practices*, *globalization and food culture*, *social determinants of mental health*

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Variable	Definition (Academic)	Type of Data Needed	Data Sources	Relevant Search Keywords
Urbanization & Modernization	Changes in lifestyle, work pressure, food accessibility, and reliance on processed foods.	ADB reports, policy documents, urbanization datasets.	Asian Development Bank (ADB), World Bank, Scopus.	*urbanization Southeast Asia*, *modernization diet change*, *urban stress*, *lifestyle transformation*
Access to Nutritious Food	Inequality and disparities in obtaining balanced nutrition in different regions.	WHO/FAO data, national socioeconomic datasets, policy reports.	FAO, WHO, World Bank, UNICEF.	*nutrition inequality*, *food security*, *access to nutritious food*, *socioeconomic determinants of diet*
Socioeconomic Indicators	Income, education level, and economic pressures influencing diet quality and mental health.	National statistics, development reports, socio-economic studies.	World Bank, UNDP, Scopus.	*socioeconomic status and diet*, *income and food consumption*, *economic stress and mental health*

Source. Processed by the Author

This research approach was chosen to deeply understand the relationship between diet, cultural dynamics, social factors and mental health in the Southeast Asian region. The research focuses on collecting data covering aspects of nutrition, people's diets, prevalence rates of mental health disorders such as depression and anxiety, as well as socio-economic indicators, such as urbanisation rates and access to nutritious food. Clinically significant impairments characterise mental health disorders in a person's cognitive functioning, emotion regulation, or behaviour. The primary focus is on disorders that are most prevalent in society and most closely related to social factors and eating patterns. These include mental disorders such as depression, anxiety disorders, psychological stress, and, in some cases, eating disorders and behavioural problems in adolescents. In the data analysis phase, thematic coding, extraction, relationship mapping, and the development of research concepts were performed using the NVivo12 application. A more detailed explanation is provided in the following Table 2.

Table 2. Research data collection

Type of Data	Quantity	Format	Function in NVivo12
Journal articles	62	PDF	Thematic coding and conceptual pattern analysis
WHO/FAO reports	7	PDF/Excel	Extraction of numerical data and narrative information
Policy reports	11	PDF	Policy analysis and contextual relationship mapping
Academic books	5	PDF	Development and refinement of theoretical concepts
Total	85 data sources		

Source. Processed by the Author

RESULT

This study explores the relationship between nutrition and mental health within the cultural and social dynamics of Southeast Asia by integrating secondary data from scientific journals, policy reports, and international sources. The research focuses on how diets shaped by cultural traditions, modernization, and urbanization contribute to mental well-being, while also highlighting how these factors influence eating behaviors across diverse communities. The findings reveal not only the connections between nutritional intake and mental health but also the impact of shifting food patterns, including the decline of traditional diets and the challenges of food insecurity in both rural and urban settings. Overall, the study emphasizes the need for culturally grounded strategies to promote nutrition that supports mental health in the region.

https://doi.org/10.34011/jmp2k.v35i4.2996

e-ISSN: 2338-3445
p-ISSN: 0853-9987

Table 3. Prevalence of Malnutrition and Mental Disorders in Some Southeast Asian Countries

Country	Prevalence of Malnutrition (%) (2018)	Prevalence of Malnutrition (%) (2023)	Prevalence of Mental Disorders (%) (2018-2024)	Median Age (Years)
Timor-Leste	24.9%	26.2%	18%	21.0
Cambodia	16.4%	6.3%	22%	27.2
Philippines	13.3%	5.2%	20%	26.1
Myanmar	10.6%	3.1%	11.2%	29.8
Vietnam	9.3%	5.7%	31%	33.4
Indonesia	30.8%	21.5%	6.1%	30.4
Thailand	8.0%	8.8%	22%	40.6
Malaysia	<2.5%	<2.5%	15%	31.0

Source. Comparison data UNICEF, WHO, World Bank, Riskesdas, and SKI 2023 processed by researcher [15]–[18].

Table 3 indicates an epidemiological shift in Southeast Asia, where demographic structure strongly shapes public health priorities. Younger countries such as Timor-Leste (median age 21.0) continue to experience high undernutrition (26.2%), while older populations such as Vietnam (33.4) and Thailand (40.6) report higher mental disorder prevalence, with Vietnam reaching 31%. These patterns, aligned with JME and GBD frameworks, show a transition from child malnutrition concerns toward increasing mental health burdens.

Country trends further illustrate this divergence: Timor-Leste records the highest undernutrition (24.9% → 26.2%) and an 18% mental disorder rate; Cambodia and the Philippines achieved major undernutrition declines yet still report high mental disorder levels (22% and 20%); Myanmar shows both low undernutrition (3.1%) and the region's lowest mental disorder prevalence (11.2%). Vietnam, despite reducing undernutrition to 5.7%, shows the highest mental disorder rate (31%), indicating that improved nutrition does not automatically enhance mental health [15], [16]. Sociocultural and economic pressures linked to modernization—such as academic competition, urban job demands, migration stress, and rising living costs—contribute to anxiety, depression, and burnout [19].

Malaysia maintains undernutrition below 2.5% but still reports 15% mental disorders, demonstrating that mental health burdens persist even where nutrition is stable. Overall, the relationship between undernutrition and mental disorders is non-linear: countries reducing undernutrition (Cambodia, Philippines) do not necessarily reduce mental health problems, while countries with minimal undernutrition (Malaysia) still face notable psychological burdens [20] This aligns with Ventriglio et al. (2021), who emphasize the roles of inequality, pollution, social insecurity, and reduced contact with nature [21], and Engel's Biopsychosocial Model, which highlights biological, psychological, and social determinants—including job stress and economic instability—as key influences on mental health [22]. However, Indonesia is working to improve nutritional outcomes, and according to the Indonesian Health Survey (IHS) data, the national stunting rate has declined from 21.5% in 2023 to 19.8% in 2024 [18], [23].

Figure 1 shows that traditional diets are the most dominant theme (frequency 30), indicating their role as natural protectors against mental disorders due to their high content of omega-3, fiber, and herbs that support brain function and reduce risks of depression and anxiety. Specific nutrients such as omega-3 (frequency 25) have a significant influence on mental health, especially in improving mood and supporting brain

https://doi.org/10.34011/jmp2k.v35i4.2996

e-ISSN: 2338-3445
p-ISSN: 0853-9987

function through the production of neurotransmitters such as serotonin; vitamin D (20) helps regulate mood and reduce depression risk; magnesium (18) supports stress reduction and sleep quality; while iron (15) prevents anemia, which is often the cause of mental fatigue. In contrast, modern diets appear with considerable frequency (22) and are commonly associated with negative effects on mental health due to their reliance on processed foods high in sugar and saturated fat. Overall, the data highlight the strong protective effects of traditional diets and adequate nutrient intake, while underscoring the risks posed by modern dietary patterns.

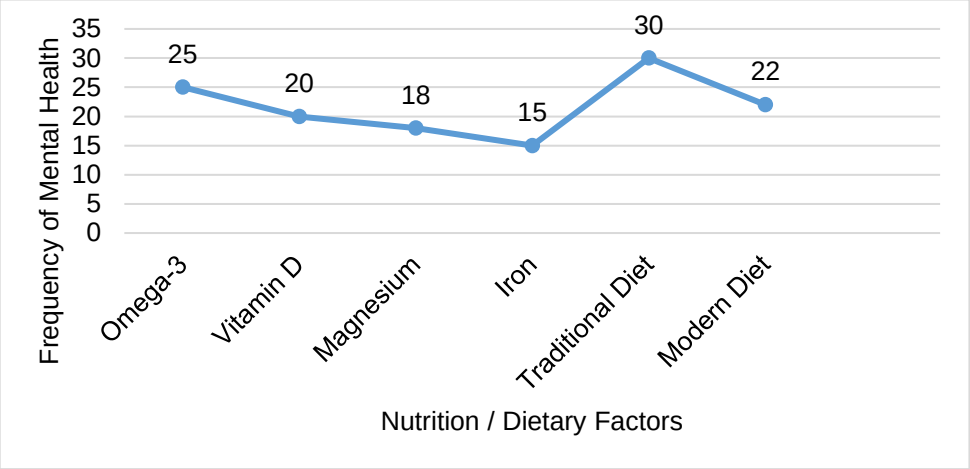

Figure 1. The Relationship between Nutrition and Mental Health: Coding Frequency of Key Themes

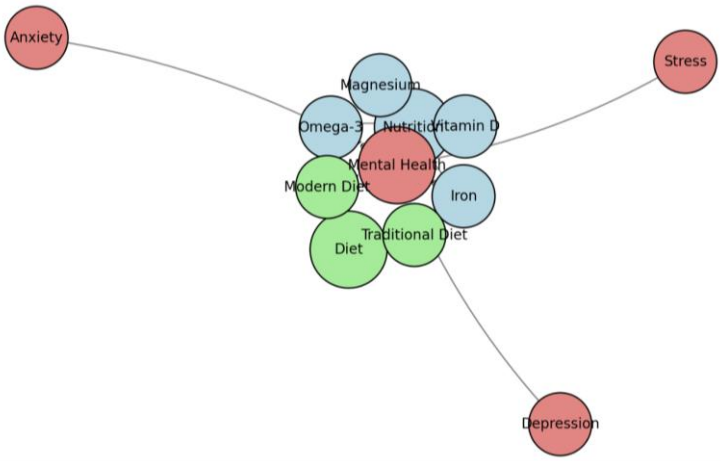

Figure 2. Network Diagram: Nutrition, Diet and Mental Health

Figure 2 presents a visual network diagram illustrating the relationships between dietary patterns, key micronutrients, and mental health. The analysis highlights two main areas—dietary patterns (Modern Diet as a risk factor and Traditional Diet as a protective factor) and essential micronutrients (Omega-3, Magnesium, Vitamin D, and Iron)—which are closely linked to mental health outcomes, particularly anxiety and depression. These conditions emerge in connection with nutritional status and external stressors, supporting the view that dietary modifications and micronutrient intake can contribute to improved mental well-being. The diagram was generated using node analysis in NVivo 12 Plus based on 85 documents, mapping the interconnected factors that influence mental health, and underscores the need to reduce processed and fast-food consumption associated with modern dietary risks. Figure 3 shows that culinary traditions have the strongest positive association with mental health, followed by healthy eating patterns,

https://doi.org/10.34011/jmp2k.v35i4.2996

e-ISSN: 2338-3445
p-ISSN: 0853-9987

highlighting the protective role of traditional and nutrient-dense diets. In contrast, processed eating patterns are strongly linked to negative mental health, while Modernization also shows a notable negative association. Both culinary traditions and healthy eating patterns have weak links to negative mental health, reinforcing their protective effects.

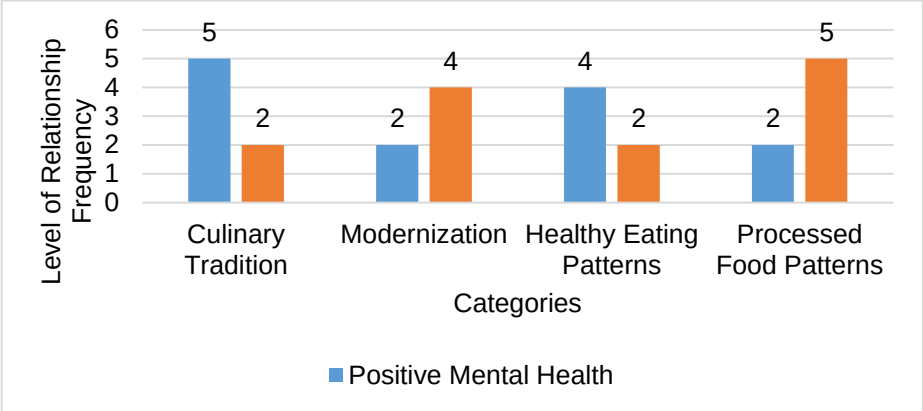

Figure 3. Culture Dynamics: Relationship between main themes and sub-themes

The figure emphasizes the importance of preserving traditional diets and promoting healthy eating while mitigating the mental health risks of modernization and processed food consumption, a finding further supported by food insecurity data in Figure 4.

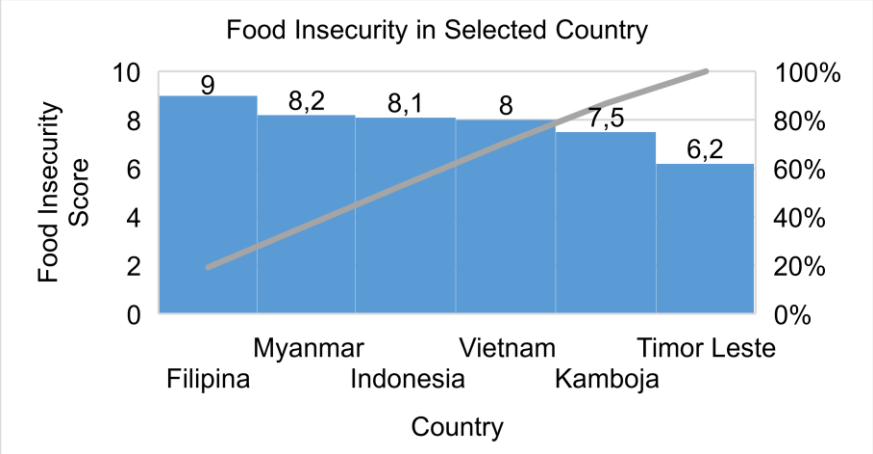

Figure 4. Food Insecurity Index in some Southeast Asian Countries

Figure 4 shows the Food Insecurity Score of selected countries in Southeast Asia. The horizontal axis (x) represents the countries analyzed, namely Cambodia, Vietnam, Timor Leste, Philippines, Myanmar and Indonesia. Meanwhile, the vertical axis (y) shows the food security score, where higher scores indicate greater levels of food insecurity. From the data shown, the Philippines has the highest food insecurity score compared to other countries, with a score close to 9. This suggests that the Philippines faces serious challenges in terms of food security. Myanmar and Indonesia also show high food insecurity scores, hovering around 8. These countries rank second highest in food insecurity after the Philippines. Vietnam and Cambodia have slightly lower scores, but still show significant levels of food insecurity. Meanwhile, Timor Leste has the lowest food insecurity score among these countries, at around 7. Although lower than other countries, this score still shows that food security is still an important issue in Timor Leste.

The data show that urbanization exerts a substantial impact on mental health across Southeast Asia, with the strongest effects observed in the Philippines, Myanmar, and Indonesia. Cambodia and Vietnam display similarly high levels of impact, while Timor-

https://doi.org/10.34011/jmp2k.v35i4.2996

e-ISSN: 2338-3445
p-ISSN: 0853-9987

Leste records the lowest score, though the influence remains notable. When compared with the Food Insecurity Score, a clear interconnection emerges: countries experiencing higher levels of urbanization also tend to face more severe food insecurity, which directly contributes to psychological stress, anxiety, and depression. Socioeconomic pressures associated with urban living—such as unstable employment and high living costs—further exacerbate mental health challenges, particularly in countries with high scores on both indicators. Although Timor-Leste shows a lower urbanization impact, it continues to encounter significant food security and mental health challenges(Table 5).

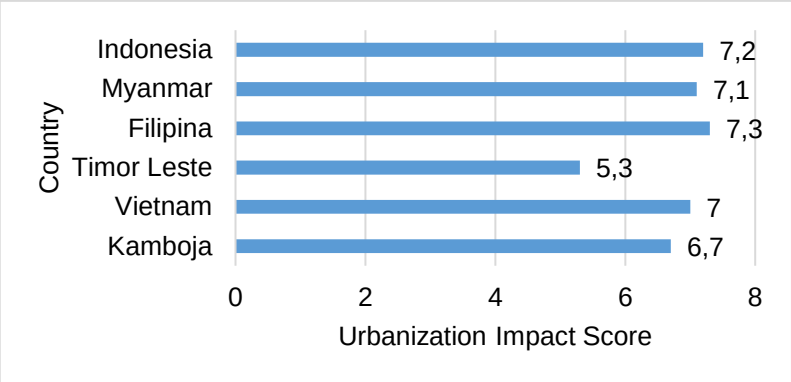

Figure 5. Urbanization Impact Score

The Impact of Urbanization and Globalization on Consumption Patterns and Mental Health: a Southeast Asian Perspective

Urbanization and globalization are multidimensional phenomena that have had significant impacts on people's food consumption patterns and mental health, particularly in the Southeast Asian region[30],[31]. These two phenomena have created major transformations influenced by the unique social, economic, and cultural dynamics in the region. Rapid urbanization has pushed people from rural to urban areas, accompanied by changes in food consumption patterns. This transition often leads to a decrease in the consumption of traditional, nutrient-rich foods, such as whole grains, fresh vegetables and plant-based proteins[26].

Globalization has intensified dietary shifts in Southeast Asia by promoting homogenous food consumption patterns. One major consequence is the rising intake of fast food—convenient and affordable but high in calories, unhealthy fats, sugar, and salt, while lacking fiber, vitamins, and minerals. Unequal distribution and limited access to nutritious, safe, and sufficient food increase vulnerability to physical and mental health problems. FAO (2018) reported that food insecurity contributes to stress, anxiety, and depression [24], uncertainty in meeting basic needs can trigger emotional distress, exacerbating challenges already heightened by urbanization and climate change. Nutrition-related policies in the region often overlook cultural dimensions. Pelletier & Pelto (2013) emphasized that interventions aligned with local cultural contexts—especially those incorporating traditional foods—are more effective because these foods carry both nutritional value and cultural significance [25].

Table 4. Recommendations that Can be Taken to Maintain Physical and Mental Health

Recommendation	Rationalization	Implementation	Example
Culture-Based Policy	Local culture affects diet and mental health. Many traditional nutrient-rich foods are being displaced by modern, less healthy foods.	- Integrate traditional foods into mental health programs. - Involve community/indigenous leaders. - Create local culture-based dietary guidelines.	Promotion of consumption of fermented foods such as tempeh in Indonesia or kimchi in other Southeast Asian communities.

https://doi.org/10.34011/jmp2k.v35i4.2996

e-ISSN: 2338-3445
p-ISSN: 0853-9987

Recommendation	Rationalization	Implementation	Example
Improved Food Security	Access to nutritious food is important to support mental health, especially in vulnerable communities.	- Sustainable agriculture and urban farming training. - Nutritious food distribution program for rural and low-income communities. - Development of nutritious food distribution infrastructure.	A food self-sufficient village program that supports local production such as vegetables and fish, combined with nutrition education.
Nutrition Education and Campaign	Lack of awareness of the relationship between nutrition and mental health hinders the improvement of people's quality of life.	- Educational campaigns in schools, health centers and social media. - Traditional food information in education curriculum. - Collaboration with influencers and community leaders.	The "Healthy Eating, Strong Mind" campaign promotes the consumption of traditional foods such as brown rice, sea fish, or tropical fruits.
Advanced Research	Local understanding of the relationship between food and mental health is limited.	- Collaborative research between universities, governments and international organizations. - Ethnographic methods to explore the relationship between culture and diet. - Development of locally-based mental health indicators.	Longitudinal study in a rural community on the effect of traditional food consumption on depression and anxiety levels.
Advanced Recommendation	Collaboration and technology can strengthen program effectiveness.	- Regional collaboration between Southeast Asian countries to share knowledge. - Utilization of technology such as apps for nutrition education and monitoring eating habits.	A cross-country cooperation platform or nutrition-based app to support Southeast Asian communities.

The recommendations provide a holistic framework for improving mental health through diet in Southeast Asia. Each recommendation is supported by complementary strategies. Culture-based policies highlight the importance of integrating traditional foods into mental health programs to ensure community acceptance, given the strong cultural influence on dietary habits. Strengthening food security is also essential, especially for rural and low-income populations, through efforts such as sustainable agriculture training and improved nutrition distribution. Nutrition education and public campaigns aim to increase awareness of the link between diet and mental health, emphasizing both scientific evidence and the benefits of traditional nutrient-rich foods. Outreach through schools, health centers, and social media helps reach diverse groups, including youth. To support program sustainability, further research is needed to understand public perceptions and generate primary evidence for more effective policy development.

These recommendations prioritize local contexts and vulnerable populations. However, implementation challenges remain. Culture-based approaches may face resistance in communities unfamiliar with the nutritional value of traditional foods. Efforts to improve food security require substantial resources and time, while education campaigns must be adapted for communities with limited media or internet access. Despite these challenges, the recommendations hold strong potential when supported by adequate funding, stakeholder coordination, and ongoing evaluation. Regional collaboration in Southeast Asia—through shared knowledge and best practices—can further strengthen implementation. Leveraging technology, such as nutrition education or dietary monitoring apps, may also help expand program reach. With this support, the recommendations can contribute significantly to advancing physical and mental health across the region(Table 4).

https://doi.org/10.34011/jmp2k.v35i4.2996

e-ISSN: 2338-3445
p-ISSN: 0853-9987

DISCUSSION

Nutrition and mental health are interrelated dimensions of well-being shaped by cultural, social, and economic contexts [26]. This study demonstrates that such factors have a significant impact on dietary behavior and mental health outcomes worldwide. Specifically, Europe is influenced by cultural–socioeconomic conditions, the United States by high-sugar and alcoholic dietary patterns, and England by socially driven lifestyle norms [27]. In Singapore, high economic competitiveness in a developed smart city environment also shapes mental health risks and dietary patterns, including a rising prevalence of diabetes [28]. Understanding these dynamics is crucial for assessing the global relevance of interactions between nutrition and mental health. In Southeast Asia, Indonesia and the Philippines face a dual burden of stunting, anemia, and growing urban obesity [29]. In contrast, Myanmar, Laos, and Cambodia continue to struggle with malnutrition despite emerging urban overweight trends [30]. Mental health challenges are compounded by stigma and limited service availability across all five countries, with Indonesia and the Philippines showing modest progress through awareness campaigns [31]. while Myanmar, Laos, and Cambodia lag due to weak system integration [32].

Although this study is limited by its reliance on secondary data and insufficient exploration of country-specific dominant factors, it offers a culturally informed understanding of nutrition–mental health linkages in the region. Using NVivo 12 Plus for thematic analysis [33]. and conceptual modeling, the study finds that traditional diets rich in fish, fiber, and anti-inflammatory spices provide cognitive and emotional benefits [4]. In contrast, modern diets high in sugar and processed foods elevate risks of stress, depression, and anxiety [34].

CONCLUSION

This study highlights the essential link between nutrition and mental health in Southeast Asia, where modernization has accelerated a shift from nutrient-dense traditional diets to unhealthy processed foods, contributing to rising mental health disorders. Evidence from the WHO and the FAO shows that food insecurity and malnutrition remain widespread and directly affect psychological well-being. The analysis suggests that cultural factors significantly influence dietary behavior, and traditional foods offer not only nutritional benefits but also social and emotional value that can support mental health. Therefore, culturally aligned health policies are necessary to enhance community acceptance of nutrition-based mental health interventions. The study recommends integrating traditional foods into mental health programs, strengthening food security, and utilizing digital tools for nutrition education, while acknowledging the challenges of low public awareness and substantial resource requirements. Regional cooperation and multi-stakeholder engagement are critical for effective implementation. The findings underscore the pivotal role of nutrition in mental health and highlight the need for inclusive, sustainable public health strategies that consider cultural diversity and socioeconomic conditions.

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p-ISSN: 0853-9987

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