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PRESERVING TRADITIONAL FOOD AS INTANGIBLE CULTURAL HERITAGE: YOUNG ADULTS' KNOWLEDGE, ATTITUDE, AND PRACTICES (KAP) IN KOTA KINABALU, SABAH

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Abstract:

The preservation of traditional food as a core element of intangible cultural heritage relies on the active interpretation and involvement of the younger generation. This study examines the knowledge, attitude and practices (KAP) of young adults toward traditional food preservation in Kota Kinabalu, Sabah. A quantitative cross-sectional survey design was employed. A structured questionnaire was distributed physically and online to undergraduate students at Universiti Malaysia Sabah (UMS), and 415 valid responses were analysed using convenience and snowballing sampling. Descriptive and inferential statistics were applied to evaluate the levels of and correlations between variables. The findings reveal that most respondents were female (75.2%) and aged between 20 and 25 years old, reflecting a young adult demographic. The predominant ethnic backgrounds represented were Dusun (21.9%) and Bajau (16.4%), mirroring Sabah's multicultural diversity.[1] The results indicate a high overall level of knowledge regarding local traditional food (82.41% high knowledge score), alongside positive attitudes toward food preservation (54.7% positive attitude level; 35.4% very positive attitude level). In terms of daily behaviours, respondents demonstrated highly active engagement in sustaining food heritage (67.5% very positive practice level). A Spearman's rank correlation analysis revealed that attitude were strongly and positively associated with preservation practices (r=0.672,

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p<0.001). The findings indicate that the surveyed undergraduate students demonstrated relatively high knowledge and positive attitudes and practices towards traditional food preservation. These findings highlight the importance of community-based, educational and digital initiatives to encourage young adults to preserve traditional food heritage.

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Keyword:

Gastronomic Heritage, Intangible Cultural Heritage, Knowledge-Attitude-Practice (KAP), Sabah, Young Adults.

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Introduction

Traditional food expresses a community's culinary identity, carrying its heritage narratives and social identities shaped over generations. In Sabah, East Malaysia, in northern Borneo, this gastronomic scene is exceptionally diverse, indicating the co-existence of more than 33 ethnic and sub-ethnic groups communicating in over 50 ethnic dialects. Iconic dishes such as *Ambuyat* (a gelatinous starch derived from sago palm trunk), *Kelupis* (steamed glutinous rice wrapped in *daun nyirik*), Hinava (a raw fish salad cured in citrus juice), *Bambangan* (*Mangifera pajang*-indigenous wild mango), and *Tuhau* (wild ginger plant) represent not only nutritional sustenance but the physical manifestation of Sabah's intangible cultural heritage. These heritage foods serve as a primary means for the dispersion of traditional recipes, knowledge, and practices, connecting the separate identities of communities such as the Kadazan-Dusun, Bajau, Murut, Bisaya, Brunei, and Lundayeh (Md Ramli et al., 2023).

Despite their cultural meaning, Sabah traditional food is increasingly vulnerable to the pressures of modernisation, urbanisation, and mass-produced food. Under the National Heritage Act 2005 (Act 645), traditional foods are recognised as key forms of intangible cultural heritage, which must be protected alongside tangible heritage such as monuments and historical sites (Md Ramli et al., 2023). Nevertheless, rapid urban migration has caused younger generations to lose touch with traditional practices. Global transformations in agricultural systems and the rise of fast-food options have altered eating habits, mainly among younger generations, who often associate globalised or westernised foods with higher status and availability. This change is heavily accelerated by the rise of viral food trends on digital media, which draw youth attention toward novel food at the expense of their own food heritage (Quintero-Angel et al., 2022).

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To prevent the deterioration of these intangible cultural assets, evaluating the Knowledge, Attitudes, and Practices (KAP) of young adults regarding local traditional food is essential. Nevertheless, few studies have examined young adults' knowledge, attitudes and practices towards traditional food preservation in Sabah. This study examines the knowledge, attitudes, and practices (KAP) of young adults toward traditional food preservation in Kota Kinabalu, Sabah, delivering empirical data to lead intergenerational cultural sustainability in the face of modern globalisation.

Literature Review

Knowledge acts as a fundamental cognitive foundation that dictates customer decision-making, health behaviours, and cultural choices (Wahab et al., 2022). In culinary anthropology, food knowledge is a collective body of insight, culinary understanding, selection skills, and preparation techniques conveyed through family lines. Bowen and Devine (2011) define traditional food knowledge as a process of sharing culinary skills and cultural experiences within domestic and community environments. The survival of food heritage relies on continuous intergenerational exchange (Guiné et al., 2021). Early introduction within household settings allows younger generations to adopt the symbolic, dietary, and cultural values of ethnic foods (Md Ramli et al., 2017). When young adults possess high food literacy and appropriate knowledge regarding the historical origins of ethnic dishes, they display greater appreciation for heritage preservation and are less inclined to be influenced by Westernised food (Mohd Shazali et al., 2012).

Food heritage covers more than physical sustenance; it acts as an intangible social framework that supports shared memory, social unity, and ethnic identity. According to UNESCO guidelines, intangible cultural heritage includes oral traditions, social practices, festive events, and knowledge concerning the environment and the space that communities recognise as part of their cultural heritage (Krzesicka-Haberko & Schreiber, 2026). Traditional food comprises both physical assets (ingredients, tools, and dishes) and intangible elements (recipes, symbolic meanings, rituals and methods). For food traditions to withstand the regulating forces of globalisation, active understanding, recontextualization, and active adoption by younger generations are required (Rocillo-Aquino et al. 2021). Previous researchers emphasise that preserving food heritage against modern control requires preserving authenticity while accommodating realistic daily lifestyles through innovative presentation and social participation.

Young Adults and Cultural Identity

Young adults (defined in national policy contexts as individuals aged 15 to 40 years) represent a critical demographic for cultural continuity. However, modern university environments, convenience-driven food markets, and viral social media marketing frequently pivot youth attention toward fast food and novel international cuisines (Meijer et al., 2021). Modern young adults balance dual desires for gastronomic novelty and cultural authenticity (Carlucci et al., 2023).

Their attitudes toward traditional food are formed by sensory preferences, health perceptions, familial upbringing, and emotional pride (Jeong et al., 2021). Evaluative attitudes directly influence their willingness to actively seek out, prepare, consume, and advocate for traditional

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dishes. Measuring young adults' KAP delivers insights into how cultural identity is sustained during environmental and lifestyle transitions.

Methodology

A quantitative cross-sectional survey design was utilised to methodically measure and analyse the knowledge, attitudes, and practices (KAP) of university students regarding the safeguarding of traditional food as intangible cultural heritage in Sabah. The target population encompassed undergraduate and postgraduate students at Universiti Malaysia Sabah (UMS) in Kota Kinabalu. Based on official institutional enrolment data (N=19,293), the required minimum sample size was determined using Krejcie and Morgan's (1970) statistical table, which indicates a benchmark of 377 respondents. To account for potential incomplete responses, a 10% buffer was added, resulting in a target sample of 415 respondents. Non-probability convenience and snowball sampling were suitable for reaching the demographic; however, they may limit the generalisability of the findings to the general youth population. A pilot study was carried out to assess internal consistency using Cronbach's alpha, showing that the attitude and practice construct achieved (α >0.70), confirming high reliability.

Data collection was conducted over a 3-month period using both self-administered physical questionnaires and an electronic Google Forms survey accessible via QR codes. The structured questionnaire consisted of four main sections adapted from validated instruments (Fauzi et al., 2024; Raman & Bok, 2024; Ziegenfuss et al., 2021). Which include demographic profile (5 items), Knowledge assessment (10 items), Attitude (15 items) and Practices (15 items). For the knowledge assessment, each correct answer received 1 mark (total scale: 0 to 10 marks), categorised into Low (0-3), Medium (4 to 6), and High (7-10) (Zakaria & Abd Wahab, 2019). As for attitude and practices using a 5-point Likert scale (1= Strongly Disagree to 5=Strongly Agree). A total of 415 valid responses were analysed using SPSS Version 30. Descriptive statistics (frequencies, percentages, means, standard deviations) were calculated for demographic profiles and KAP categories. Normality was evaluated using the Kolmogorov-Smirnov test. A descriptives and inferential statistics (Spearman's rank correlation) were utilised to examined KAP constructs.

Demographic Profile of Respondents

As detailed in Table 1, female respondents represented 75.2% (n=312), while males accounted for 24.8% (n=103). The vast majority fell within the young adult age range of 20 to 25 years (95.4%, n=396). The sample reflects Sabah's multicultural diversity, led by Dusun (21.9%), Malay (16.6%), Bajau (16.4%), Kadazan (10.8%), Murut (4.3%), Chinese (6%), Indian (1.7%), and other ethnic groups including Bugis, Lundayeh, and Sino-Native (22.3%). This rich ethnic diversity confirms that the evaluated KAP scores indicate multifaceted cultural traditions rather than a singular perspective.

Knowledge, Attitudes and Practices (KAP) toward Sabah Traditional Food

Knowledge assessment across 10 items generated an overall mean score of 8.05±1.77 out of 10. A total of 342 respondents (82.41%) demonstrated a high knowledge score (score 7 to 10), while 63 respondents (15.18%) exhibited a medium level (score 4 to 6), and 10 respondents (2.40%) recorded a low level (score 0-3), as shown in Table 1. These findings correspond with Juanis et al. (2022), who observed strong cultural awareness among Sabahan youth regarding

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Dusun cultural heritage elements. High recognition was recorded for items such as *Linopot*, *Hinava*, and *Kuih Cincin*, demonstrating that young adults retain strong cognitive connections to regional heritage foods even with modern exposure.

Table 1: Knowledge, Attitude and Practice (KAP) levels (N=415)

Construct	Level/Category	*f*	%
Knowledge	High (Score 7-10)	342	82.41
	Medium (Score 4-6)	63	15.18
	Low (Score 0-3)	10	2.40
Attitude	Very Positive (High)	147	35.40
	Positive (Moderate High)	227	54.70
Practice	Very Positive (High)	280	67.50
	Positive (Moderate High)	122	29.40

Based on analysis, it was revealed that 54.70% ($n = 227$) of respondents held a positive attitude level, and 35.40% ($n = 147$) maintained a very positive attitude level toward traditional food preservation (Table 2). Which came from the influence of family and social media (Scaglioni et al., 2018), taste and production perception as well play important role (Alabdulmohsen & Al-Otaibi, 2025) and availability and availability of traditional ingredients. Only 8.90% were neutral, along with 1% negative, confirming that youth strongly support safeguarding Sabahan culinary identity.

Overall practice scores summarised in Table 1, 67.50% ($n = 280$) of respondents demonstrated a very positive practice level, and 29.40% ($n = 122$) recorded a positive practice level. Combined, 96.90% of young adults actively take part in actions that support traditional food preservation. The practices cover knowledge in sustaining traditional food, youth perception and awareness related to youth.

Correlation between Attitudes and Practices

To evaluate the relationship between young adults' attitudes and their preservation practices, Spearman's rank correlation analysis was carried out. Attitudes were strongly and positively associated with preservation practices ($r = 0.672$, $p < 0.001$). This result indicates that as young adults develop more positive evaluative attitudes, cultural affection, and sensory appreciation toward their food heritage, their active engagement in purchasing, preparing, consuming, and promoting traditional foods increases proportionally. However, this correlation indicates a strong association but does not imply a direct association.

Conclusion

The research indicates that the surveyed undergraduate students demonstrated relatively high knowledge and positive attitudes and practices towards traditional food preservation. This study delivers empirical evidence regarding how university-aged youth engage with intangible cultural assets, demonstrating that structured learning settings and family heritage exposure jointly reinforce cultural retention. These conclusions highlight the importance of community-based, educational and digital initiatives to encourage young adults to preserve traditional food

heritage. To strengthen these outcomes, subsequent research should expand its scope beyond the university campus to include youth populations across Kota Kinabalu and rural Sabah regions, providing a more comprehensive overview of youth engagement. Additionally, an in-depth qualitative study should explore how youth understand the conceptual definitions of intangible cultural heritage. Ultimately, sustaining Sabah's rich and varied culinary legacy needs a collective effort from families, educational institutions, digital media, and the food retail industry to encourage inspire the next generation as active guardians of their cultural heritage.

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Ethics Statement: This study was conducted in accordance in line with ethical research standards and approved by the UMS Medical Research Ethics Committee, Faculty of Medicine and Health Sciences, Universiti Malaysia Sabah (Approval Code: JKEtika 5/25 (11)) on 24 October 2025.

Author Contribution Statement: All authors contributed notably to this work. Adilah Md Ramli acted as the corresponding author and was responsible for the concept, research design, methodology, ethics clearance, and overall supervision of the study. Elvey Marvey Marcus handled the literature search, pilot testing, physical and online data collection, and statistical analysis using SPSS. Noriza Ishak contributed to the literature review, drafting, editing, and critical revision of the manuscript to comply with the JTHEM formatting standards. All authors read and approved the final version prior to submission.

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Appendix

Demographic Profile (N=415)

Variable	*f*	%
Gender		
Male	103	24.8
Female	312	75.2
Age		
20-25	396	95.4
26-30	16	3.9
31-35	1	0.2
36-40	2	0.5
Ethnicity		
Malay	69	16.6
Chinese	25	6.0
Indian	7	1.7
Kadazan	45	10.8
Dusun	91	21.9
Bajau	68	16.4
Murut	18	4.3
Others	92	22.3