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Nutritional Analysis of Instant Noodle Cake and Its Consumption Patterns Among the General Population

Nur Alisa Zahidi[a], So'bah Ahmad[a,b*]

Structured Abstract

Background: Instant noodles are widely consumed, especially in Malaysia, due to their taste, affordability, and ease of preparation, making them a convenient option for students and working adults. Their consumption has risen steadily, reflecting their popularity as a substitute for home-cooked meals in fast-paced lifestyles. However, frequent intake can lead to nutritional imbalances, as instant noodles are high in fats and processed carbohydrates, while lacking essential proteins and micronutrients. This dietary pattern has been linked to increased risks of non-communicable diseases. Analyzing the nutritional content of instant noodle cakes, without the influence of seasonings, is crucial to accurately assess their intrinsic quality and caloric contribution.

Methods: A study was conducted using a structured survey among 196 Malaysian adults to assess instant noodle consumption, preferences, and nutritional awareness. Fourteen local and international dry-based instant noodle brands were selected for physicochemical and nutritional analysis. Measurements included moisture content, rehydration ratio, cooking time, protein, carbohydrate, sugar, fat, sodium, and ash. Survey responses were analysed using SPSS, while experimental data were compared across brands using statistical tests. This combined approach enabled evaluation of consumption patterns alongside the intrinsic quality and nutritional content of instant noodle cakes.

Results: This study investigated the consumption patterns and nutritional composition of 14 local and international instant noodle brands. A survey of 271 respondents revealed that 4.8% choose instant noodle and 76.9% of it consume instant noodles 2–3 times per week due to convenience and low cost but 75% of all respondents recognize they cannot replace balanced meals. Laboratory analysis showed significant variations ($p < 0.05$) in protein, fat, and sugar content across brands, whereas sodium and carbohydrate levels remained relatively uniform ($p > 0.05$) across all 14 brands. For local and international brands are mostly not significance, except for fat and sodium levels.

Conclusion: This research concludes that instant noodle consumption is primarily driven by affordability and convenience. While most consumers show high nutritional awareness and do not view these noodles as meal replacements, significant differences exist in protein and fat levels across brands. Notably, Kobe's brand is the healthiest choice due to its superior protein and low fat content.

Keywords: Instant noodle cakes, Consumption, Nutritional analysis, Malaysia, Health

*Correspondence: sobah@uitm.edu.my

[a] School of Industrial Technology, Faculty of Applied Sciences, Universiti Teknologi MARA, Shah Alam, Malaysia

[b] Food Science Research Group, Universiti Teknologi MARA, Shah Alam, Malaysia