Fonologi : Jurnal Ilmuan Bahasa dan Sastra Inggris
Volume. 2, Nomor. 4 Tahun 2024
e-ISSN : 3025-6003, p-ISSN : 3025-5996, Hal 271-286
DOI: https://doi.org/10.61132/fonologi.v2i4.1237
Available online at: https://journal.aspirasi.or.id/index.php/Fonologi

The Impact of Food Label Perception and Nutrition Literacy on Communication Behavior : A Case Study of Medan State University Students

Dina Puspita Sari Daulay[1*], Lismawarni[2], Rita Hartati[3]
[1-3] State University of Medan, Indonesia
dinapuspitasaridaulay@gmail.com [1*]

Address: Jl. William Iskandar Ps. V, New Memories, Percut Sei Tuan District, Deli Serdang Regency, North Sumatra 20221
Author correspondence: dinapuspitasaridaulay@gmail.com

Abstract. *This study aimed to investigate the correlation between food label perceptions, nutritional literacy, and communication behaviors among students at Medan State University. Given the growing importance of food literacy for public health, this research sheds light on the challenges that university students face in comprehending and utilizing information from food labels. Employing a qualitative methodology grounded in thematic analysis, data were gathered through an online survey involving 30 students representing diverse academic disciplines. Findings indicate that while a majority of participants possessed a moderate level of understanding regarding food labels, there existed gaps in comprehending crucial aspects such as Daily Value (%DV). Food labels often serve as a tool for fostering conversations about healthy eating, yet their consistent utilization remains limited. In conclusion, this study underscores the necessity for a structured nutrition literacy program to enhance students' capacity for making well-informed nutritional choices and cultivating more robust communication practices of nutrition. The insights gleaned from this study carry implications for shaping educational policies and curricula that more comprehensively integrate food literacy.*

Keywords: *Communication behaviors, Food Literacy, Nutrition Literacy, Food Label, Students Perceptions*

1. INTRODUCTION

In the 20th century, food consumption increased rapidly due to eating habits. In this era, westernized lifestyles are a big issue. The significance of food nutrition labels is becoming increasingly apparent, as they have become an essential reference for consumers (Wang, 2024). Food security is an important thing that needs to be considered by the community. Awareness of the importance of understanding food production labels in Indonesia is growing and attention to labeling is increasing. The message contained in the Balanced Nutrition Guidelines (PGS) mentions the importance of reading food labels (Maulida,2019). The habit of reading labels**,** especially nutritional information listed on food packaging, needs to be done to make it easier for consumers to choose food according to their needs, especially for foods with contents that need to be limited, such as sugar, salt, and fat. Given that the concept and definition of 'literacy' have evolved over the years with varying perspectives but still no consensus, it is not surprising that we see a lack of a shared definition of FL which emerges from understandings of both literacy and health (Hernandez et al, 2021).

One of the ways to get information about safe and healthy food is to read the food labels. The use of food labels is assumed as the consumer activity to reach the information

Received: Oktober 15, 2024; Revised: November 19, 2024;Accepted: Desember 02, 2024; Online Available:Desember 05, 2024

based on the product packaging. Packaging information availed to consumers can lead to confusion and misinterpretation by misleading them with too much or inaccurate information. Nutrition and health education are essential parts of maintaining a healthy lifestyle, they can make decisions for people to choose what they want to eat. Good nutrition is one of the keys to a healthy life. Eating the right foods can help us maintain a healthy weight, have more energy, and avoid diseases (Tzenios,2022). The consumers' understanding of food labels is lessened by the complex array of information on pre-packaged food which distances the consumer from knowledgeable sources of food information (Mmopelwa, 2012).

Food literacy is defined as the capacity to successfully obtain, comprehend, and use food and nutrition information. It includes information on food choices, preparation, and health implications, all of which are critical for encouraging good eating habits and enhancing public health outcomes. Food literacy refers to the knowledge and skills necessary for selecting, preparing, and consuming food. It includes understanding food safety, quality, pricing, and the ability to make informed choices about food options (Nithra, Kitreerawutiwong., 2022). Food literacy is a multifaceted concept that includes conceptual knowledge (understanding food-related information such as preparation and its impact on health), procedural knowledge (practical skills for using ingredients and cooking techniques), motivation (the drive to apply this knowledge to make healthy choices), and societal context (the role of guidelines, campaigns, and education in shaping food behaviors), all of which together help individuals incorporate healthy food practices into their lives (Grier, 2016).

The perceptions of the students regarding compliance with food label reading on products can provide valuable insights into consumer behavior and awareness about nutritional information. Understanding these perceptions can help educators and policymakers develop targeted strategies to enhance food literacy among students, ultimately promoting healthier dietary choices. This understanding can also inform the development of curriculum materials that emphasize the importance of reading food labels, thereby equipping students with the necessary skills to make informed decisions about their nutrition. The perceptions of English literature students regarding compliance with food label reading on products can provide valuable insights into consumer behavior and awareness about nutritional information (Chopera et al., 2014)

Understanding these perceptions can help educators and policymakers develop targeted strategies to enhance food literacy among students, ultimately promoting healthier dietary choices. This understanding can also inform the development of curriculum materials that emphasize the importance of reading food labels, thereby equipping students with the necessary

skills to make informed decisions about their nutrition. (Dharni & Gupta, 2015). By fostering a culture of critical thinking around food choices, universities can empower students to become more conscientious consumers who prioritize their health and well-being. Engaging students in discussions and practical activities related to food labeling can further reinforce these concepts, making the learning process more dynamic and impactful. Incorporating real-world examples and case studies into the curriculum can also enhance students' understanding of food literacy, allowing them to see the direct implications of their choices on personal health and environmental sustainability (Jones et al., 2012)..

Communication behavior theory encompasses various frameworks that explain how individuals and groups convey and interpret messages, particularly in health contexts. This theory is crucial for understanding how communication can influence behavior change, especially in public health initiatives. Ackoff's behavioral theory of communication focuses on the decision-making processes of individuals, defining the value of information based on its impact on purposeful states(Ackoff, 1958). Conceptualizes information in relation to the decision problems faced by individuals. He emphasizes that communication is fundamentally about how information influences choices and actions.

Food labels are one of the key communication tools in conveying nutritional information and promoting healthy eating. However, understanding food labels remains a significant challenge for many consumers. According to Francine Cruz de Cerqueira Lima (2014) in her article “Communication in the Promotion of Healthy Food via Labels: An Analysis of Two Speeches,” consumers often struggle with food labels due to overly technical language and less user-friendly visual design. These challenges hinder the effectiveness of food labels in promoting healthy dietary choices.

This phenomenon is also reflected in the context of Medan State University students. Despite having a fairly good educational background, students do not necessarily possess adequate nutritional information literacy. Limited literacy skills can shape how they perceive food labels, ultimately influencing their communication behaviors, such as discussing food choices or advising peers.

This study delves into the correlation between food labels and nutritional information literacy and communication behaviors among students at Medan State University. Understanding food literacy is crucial as it impacts individuals' capacity to make informed food choices, a pivotal aspect in promoting healthier lifestyles. Yet, the connection between literacy in interpreting food labels and its influence on communication behaviors remains insufficiently explored.\n\nThe research assesses the current level of literacy among students concerning

food labels and nutritional information and how this knowledge affects their interactions, such as engaging in discussions about food choices or providing advice to peers. Moreover, it investigates whether students with higher levels of food label literacy demonstrate distinct communication patterns compared to those with lower levels. The study seeks to underscore the significance of food label literacy in molding effective communication and fostering healthier eating practices within the university community after illuminating these dynamics.

2. LITERATURE REVIEW

Food Labels

Wang (2024) explains that food nutrition labels provide information on nutritional properties, including nutritional fact tables. Martini and Menozzi (2021) state food labels are the initial informative aid that customers encounter during their purchasing journey. They provide information regarding the ingredients, nutrient content, and allergens of the selected product. Food labels provide useful information to help customers make educated decisions. Global financial challenges require customers to maximize their limited resources and make the most use of available resources, such as food labels. Food labeling plays a vital role in helping consumers make informed choices about what they eat. It involves attaching printed, written, or visual labels to food products, offering key details about the item. These labels typically include product descriptions, nutritional information, usage instructions, and safety precautions. Additionally, they highlight the percentage of the recommended daily intake of calories, saturated and trans fats, sodium, and added sugar in every 100 grams, giving shoppers a clearer understanding of how the food fits into a balanced diet (Manjrekar et al., 2024). Food labels, found on product packaging or attached to containers, serve as essential communication tools between producers and consumers. Their primary purpose is to provide clear and concise information about a product’s nutritional value and the content of pre-packaged food items. As a direct communication channel, food labels ensure that consumers are informed about the properties and value of the products they purchase, empowering them to align their choices with personal dietary needs and preferences.

Food labels perception, understanding and Knowledge

Knowledge about food and nutrition is a basic component of food literacy, and this declarative aspect encourages individuals' healthy eating practices by generating interest in a healthy food environment (Lee, Kim, and Jung, 2022). Nutrition and food literacy are two important concepts in the same scope but have different functions. According to Silva, Araújo,

Lopes, & Ray (2023), Nutrition refers to the study of how food affects the body, while food literacy refers to the knowledge, skills, and attitudes needed to make informed decisions about food and its impact on health. Worsley (2002) said that Psychologists have classified knowledge into two types, namely declarative knowledge, knowledge of 'what' awareness of something and the process, and procedural knowledge, namely knowledge of how to do something. Nutritional knowledge is knowledge about nutrients and nutrition. If nutritional knowledge has been conceptualized then there will be ease in digesting information about nutrients and nutrition.

Knowledge is viewed as a key strategic and competitive resource proven to affect consumer decision-making (Brucks, 1985). The attainment of knowledge is rooted in an educational process that elevates an individual's thoughts and expressions beyond mere personal beliefs and opinions (Fenstermacher, 1994:33-34). Knowledge entails information, facts, descriptions, and/or skills acquired through experience or education (Hornby, 2015) and can therefore be seen as a consumer competency (Wright, 2002). Consequently, for a consumer to be knowledgeable about something, for example, food labels, they had to have encountered it previously and understand its meaning (Hoyer & MacInnis, 2008:92). Knowledge about food label information can be gathered from a large number of sources, both personal and impersonal, which may or may not be controlled by marketers (Blythe, 2008:131-132). This classification of knowledge sources is outlined in Table 2.1 and for this study is approached from the classification of Blythe (2008:132). According to this classification, but from a food label perspective, the most common knowledge source is the product itself as a marketer-controlled, impersonal information source. However, nonmarketer-controlled personal information sources are important socialization agents during childhood consumer socialization and should be utilized during consumer education initiatives. Product knowledge is a condition of how much and deeply consumers know product characteristics before buying them, and is generally related to attributes, benefits, and satisfaction values.

Nutritional Information Literacy

Nutrition literacy refers to the ability to acquire, process, and comprehend essential nutritional information and services needed to make appropriate dietary decisions (Carbone & Zoellner, 2012). This competency includes understanding food nutrition labels, which serve as critical communication tools that detail nutritional characteristics, such as nutritional fact tables and supplementary nutritional tables (Wang, 2024). Additionally, critical nutrition literacy goes beyond basic understanding by involving skills to critically analyze nutrition information

and advice, along with the willingness to engage in actions addressing nutritional barriers from personal, social, and global perspectives (Guttersrud, Dalane, & Pettersen, 2014).

Food labels often feature nutritional claims and symbols that can help consumers identify the most suitable food choices (Giró-Candanedo, Claret, Fulladosa, & Guerrero, 2022). Beyond comprehension, nutritional literacy involves applying nutrition knowledge to achieve personal health goals and improve social well-being. It is closely related to food literacy, which encompasses a broader understanding of food systems and their implications for health (Rivishani & Jayasinghe, 2022). Strong nutrition literacy enables consumers to make better decisions about food selection, supporting healthy eating habits and reducing the risks associated with poor dietary choices.

Integrating nutrition literacy into education policies and public health campaigns is crucial for bridging gaps in nutritional understanding. For instance, Guttersrud et al. (2014) emphasize that critical education focusing on nutrition literacy can enhance individuals' ability to consider the social and ecological impacts of their food choices. Similarly, Wang (2024) highlights that simplifying food labels—through visual symbols or user-friendly information tables—can improve their effectiveness in encouraging healthier consumer behavior. Thus, nutrition literacy plays a pivotal role not only in individual health but also in shaping broader societal eating habits. A comprehensive approach combining education, policy reinforcement, and improved label design can foster environments that support informed and healthy dietary practices both locally and globally.

Communication Behavior

Communication behavior encompasses various aspects of human interaction, significantly influencing health outcomes, social engagement, and individual expression. Russell Ackoff's communication behavior theory emphasizes the relationship between information and decision-making processes. He conceptualizes information as a critical element in an individual's purposeful state, which includes their objectives, valuation of those objectives, and potential actions. This theory highlights how communication can influence behavior by altering the amount of information, instruction, and motivation available to individuals, thereby affecting their decision-making. Effective communication is essential for sharing information about food, nutrition, and healthy eating practices. Individuals with high food literacy are better equipped to understand and interpret food-related information, which enhances their ability to make informed dietary choices. This aligns with Ackoff's view that information is crucial for decision-making.

According to Ackoff (1958), a purposeful state includes an individual's objectives and the valuation of those objectives. In the context of food literacy, individuals may have objectives related to health, taste, or sustainability. Communication behavior influences how these objectives are prioritized and how individuals assess the efficiency of their food choices, thereby impacting their overall food literacy. Ackoff's framework distinguishes between information, instruction, and motivation. In food literacy, instruction can refer to guidance on preparing healthy meals or understanding nutrition labels. Motivation may involve personal values related to health or environmental concerns. Effective communication can enhance both instruction and motivation, leading to better food literacy and healthier eating behaviors.

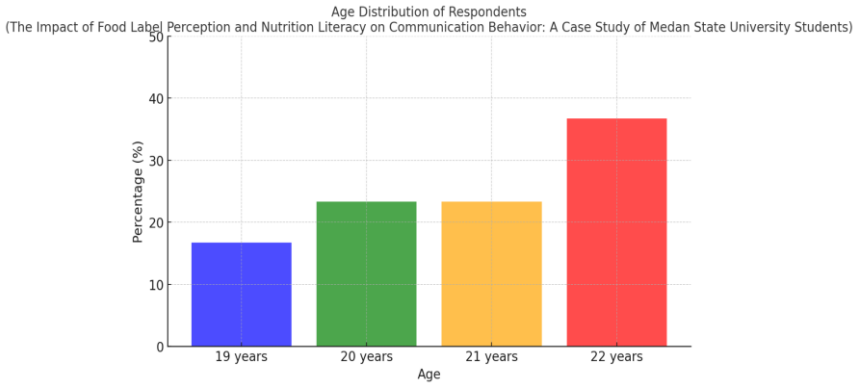
3. METHODOLOGY

The study employed a qualitative approach with an interpretive perspective to investigate the correlation between food literacy and verbal communication among university students. This method aims to comprehend phenomena through the participants' viewpoints, highlighting the depth and intricacy of human experiences (Creswell, 2014). Such an approach is particularly suitable for delving into intricate subjects like food literacy and communication patterns, where individual viewpoints and experiences are fundamental. Thirty students from Medan State University were purposively selected to ensure a diverse range of academic backgrounds, offering a comprehensive outlook on food literacy.

Data collection involved the distribution of Google Form questionnaires via the WhatsApp application, enabling efficient and direct interaction with the participants. Online surveys are commonly utilized in qualitative research due to their flexibility, accessibility, and capacity to engage a broad participant base (Evans & Mathur, 2018). The survey questions were thoughtfully crafted to address the main research goals, delving into participants' viewpoints and experiences regarding food literacy. To safeguard participants' confidentiality, anonymization of all responses was implemented.

The collected data underwent descriptive analysis through thematic analysis, following Braun and Clarke's (2006) framework, to discern, interpret, and outline patterns or themes within the data. This method facilitated the identification of significant themes from the responses, offering profound insights into the impact of food literacy on verbal communication. This study presents a holistic perspective on the student's perceptions and experiences by uncovering consistent patterns and connections.

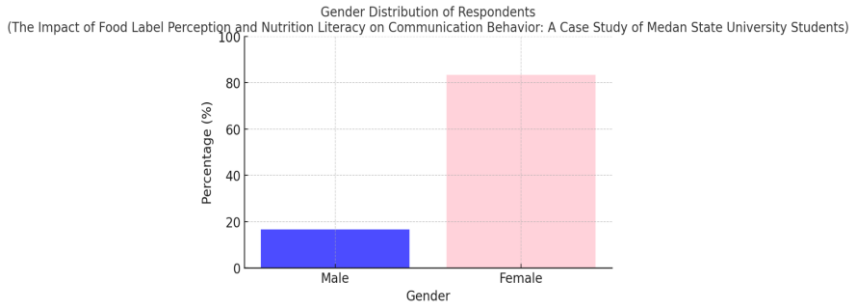
4. 4. RESULT AND DISCUSSION



Figuere 1

The majority of respondents are 22 years old (36.7%). This can be justified by the fact that this age group typically represents senior undergraduate students at Medan State University. They likely possess more experience and understanding regarding food label perception and nutritional literacy compared to younger students. The 20 and 21 years old groups have equal representation, each accounting for 23.3%. These respondents are likely in the middle years of their studies, providing valuable insights as they are in the process of developing a more advanced understanding of nutritional literacy and related communication behaviors.

The smallest group is respondents aged 19 years, at 16.7%. This reflects their status as first-year students, who may have limited exposure to topics like food label literacy due to their relatively recent transition to university life. This distribution is representative of the typical age range among university students, capturing different stages of their academic journey. The higher proportion of older respondents (22 years old) aligns with the study's focus, as a deeper understanding of food labels and nutrition often correlates with educational and experiential maturity.

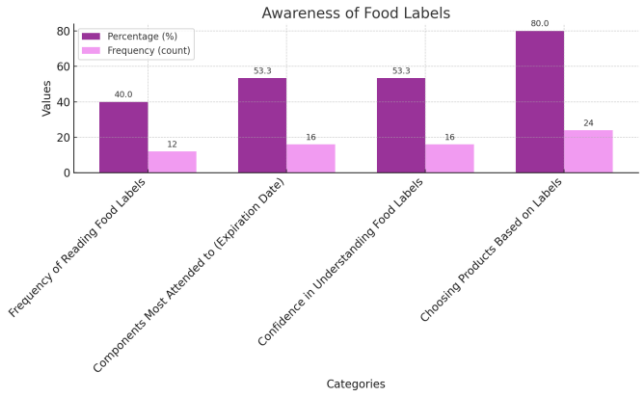


Figuere 2

Another result of the questionnaire in the study showed that female respondents dominated with a percentage of 83.3%, while men were only 16.7%. This distribution reflects

the actual gender demographics in the selected population. In many universities, especially in fields that emphasize food and nutrition-related topics, female students tend to outnumber male students. This trend is in line with broader societal patterns where women often show greater interest and engagement in food-related studies and health literacy.

The higher proportion of female respondents provides an opportunity to gain more insight into their perceptions of food labeling and nutrition literacy, which are areas where women are often more actively engaged. Although male representation was lower, it was still sufficient to capture their unique perspectives, ensuring that the study accounted for gender differences in communication behaviors related to food labels and nutrition.



Figuere 3

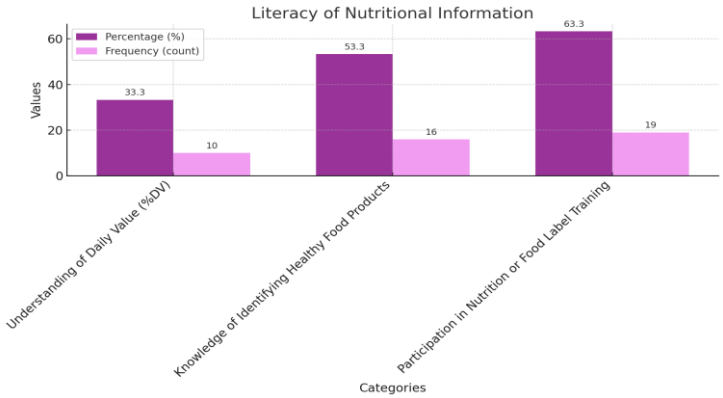
Table 1 findings The Awareness of food labels

Code	Option	Response option	Percentage (%)	Frequency (count)
Q1	Frequency of Reading Food Labels Before Purchasing Products	Sometimes	40	12
Q2	Components Most Attended to When Reading Food Labels	Expiration Date	53,3	16
Q3	Confidence in Understanding Food Labels	Moderately Confident	53,3	16
Q4	Choosing Products Based on Label Information	Maybe	80	24

Awareness of food labels is a fundamental step in understanding nutritional information and promoting healthy eating habits. The findings reveal that 40% of respondents "sometimes" read food labels before purchasing, while the most commonly checked component is the expiration date (53.3%). This suggests that students prioritize product safety over nutritional details. Interestingly, although 53.3% of respondents feel "moderately confident" in understanding food labels, 80% responded "maybe" when asked if they choose products based

on label information. These results indicate that while awareness exists, the practical application of food label information in decision-making is limited. This aligns with the research topic, emphasizing the need to explore how food label perception influences communication behavior, particularly in fostering a deeper understanding of nutritional information.

The findings on awareness of food labels resonate with Ackoff's communication behavior theory, which emphasizes the role of information in decision-making processes. The fact that 40% of respondents "sometimes" read food labels before purchasing suggests that they partially engage with the available information. However, the focus on the expiration date (53.3%) rather than nutritional details indicates a limited scope of valuation for their objectives. This aligns with Ackoff's idea that communication behavior alters decision-making by providing varying levels of instruction and motivation. For these students, the instruction is primarily linked to ensuring food safety, with less emphasis on nutritional literacy. To achieve a more purposeful state—such as making health-conscious decisions—effective communication should enhance their motivation to prioritize and interpret nutritional details on labels.



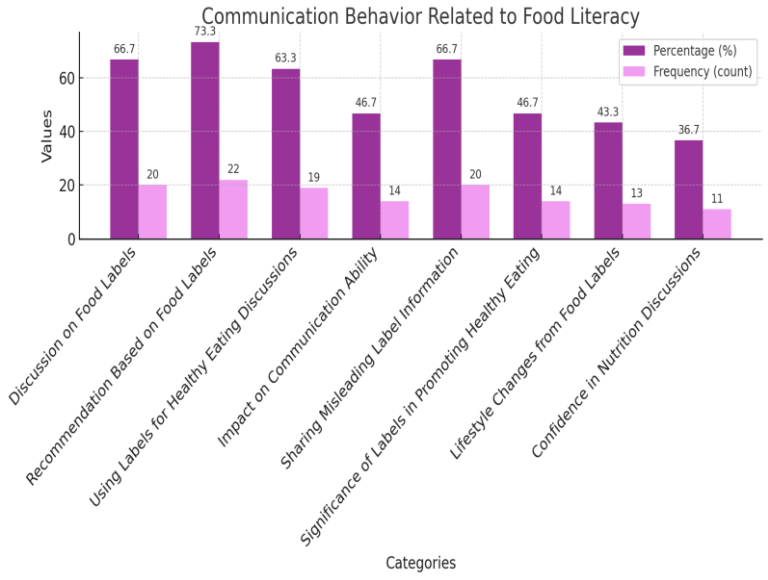
Figuere 4

Table 2 finding Literacy of Nutritional Information

Code	Option	Response option	Percentage (%)	Frequency (count)
Q1	Understanding of Daily Value (%DV)	yes	33,3	10
Q2	Knowledge of Identifying Healthy Food Products	Moderately Knowledge	53,3	16
Q3	Participation in Nutrition or Food Label Training	No	63,3%	19

Nutritional literacy serves as the foundation for making informed, label-based decisions. The study shows that only 33.3% of respondents understand the concept of daily value (%DV), which is a critical aspect of food label literacy. On the other hand, 53.3% rate themselves as "moderately knowledgeable" about identifying healthy food products, reflecting a basic but incomplete understanding. Furthermore, 63.3% of respondents reported never participating in training related to food labels or nutrition, highlighting a significant gap in formal education on this subject. These findings underscore the importance of structured educational initiatives to improve students' nutritional literacy, which is vital for fostering informed communication about healthy eating, a core focus of this research.

The limited understanding of daily value (%DV) (33.3%) and the lack of participation in nutritional training (63.3%) highlight gaps in both instruction and motivation. According to Ackoff, individuals make decisions based on the quality and relevance of information they receive. Without adequate instruction—such as training on how to interpret %DV—students cannot fully utilize food labels to support informed decisions. Furthermore, their "moderate knowledge" in identifying healthy products (53.3%) points to a baseline understanding that requires stronger motivation to elevate their food literacy. Motivation in this context could stem from personal health goals or societal encouragement toward sustainability. Effective communication strategies, therefore, must not only convey information but also inspire values and objectives that align with healthier food choices.



Figuere 5

Table 3 finding Communication Behavior related to Food Literacy

Code	Option	Response option	Percentage (%)	Frequency (count)
Q1	Discussion on Food Labels	Sometimes	66,7	20
Q2	Recommendation Based on Food Labels	Yes	73,3	22
Q3	Using Labels for Healthy Eating Discussions	Sometimes	63,3	19
Q4	Impact on Communication Ability	Agree	46,7	14
Q5	Sharing Misleading Label Information	Yes	66,7	20
Q6	Significance of Labels in Promoting Healthy Eating	Strongly Agree	46,7	14
Q7	Lifestyle Changes from Food Labels	Yes	43,3	13
Q8	Confidence in Nutrition Discussions	Moderately Confident	36,7	11

Communication behavior plays a pivotal role in disseminating information about food labels and encouraging healthy eating practices. The data indicates that 66.7% of respondents "sometimes" discuss food labels, and 73.3% have recommended products based on label information, demonstrating that labels are perceived as reliable sources for sharing knowledge. Additionally, 63.3% "sometimes" use food labels to support discussions about healthy eating, but only 46.7% agreed that food label awareness improved their communication abilities. Confidence in discussing nutrition topics remains moderate, with 36.7% describing themselves as "moderately confident." These findings suggest that while food labels have the potential to be powerful communication tools, their usage is inconsistent and requires better understanding and integration. This aligns closely with the research focus on how nutrition literacy and label perception influence communication behavior.

Communication behavior, as Ackoff describes, is a dynamic process influenced by how individuals interact with and prioritize information. In this study, 66.7% of respondents "sometimes" discuss food labels, and 73.3% have recommended products based on label information. These behaviors demonstrate the influence of information-sharing on social engagement and decision-making. However, the inconsistency in using labels for healthy eating discussions (63.3% "sometimes") reflects a gap in both instruction and motivation. Similarly, while 46.7% agreed that label awareness improves communication ability, the moderate confidence (36.7%) in discussing nutrition topics suggests that their communication

is not yet fully optimized. To bridge these gaps, communication strategies should aim to deepen their understanding of food literacy while also motivating them to engage in more frequent and meaningful discussions. Ackoff's emphasis on motivation as a driver for behavioral change supports the idea that students must be inspired by values—such as health or sustainability—to effectively integrate food label information into their interactions.

5. CONCLUSION

The findings reveal that communication behavior significantly influences how students interact with food labels, make dietary choices, and exchange information within their social networks. In line with Ackoff's theory, students' purposeful state—comprising their health goals, values, and actions—is shaped by the quality of information, instruction, and motivation available to them. While engagement with food labels and food literacy is moderate, inconsistencies in communication suggest that the current flow of information does not fully support effective decision-making.

This study highlights the relationship between food label perception, nutritional literacy, and communication behavior among students at Medan State University. Although students demonstrate awareness of food labels, their application in communication and decision-making remains underdeveloped. A focus on safety-related information, such as expiration dates, over nutritional content, and a limited understanding of elements like %DV emphasize areas for improvement. Additionally, the lack of formal training in nutrition further restricts the development of food label literacy.

Nevertheless, food labels are often used for sharing recommendations and fostering discussions, illustrating their potential as communication tools. Targeted education and structured nutritional literacy programs can maximize this potential, enabling food labels to promote more meaningful interactions and healthier choices. Collaboration among educational institutions, policymakers, and industry stakeholders is crucial for creating sustainable initiatives that enhance the role of food labels in improving nutrition awareness and decision-making.

To close these gaps, communication strategies should prioritize better instruction and motivation regarding food literacy. Clearer guidance on interpreting nutrition labels and fostering values centered on health and sustainability can empower students to make more informed decisions. By addressing these needs, students can achieve greater confidence in their communication behavior and support healthier eating practices.

REFERENCES

AlKasasbeh, W., & Akroush, S. (2024). Investigating the interrelationships among food habits, sports nutrition knowledge, and perceived barriers to healthy eating: A study of adolescent swimmers. Frontiers in Nutrition, 11, Article 1381801. https://doi.org/10.3389/fnut.2024.138180

Asia Pacific J Clin Nutr (2002) 11(Suppl): S579–S585 S579 Review Article Nutrition knowledge and food consumption: can nutrition knowledge change food behavior? Anthony Worsley BSc (Hons), PhD

Azevedo, M. M., Pinheiro, C., Dias, A. C. P., Pinto-Ribeiro, F., & Baltazar, F. (2015). Impact of an educational hands-on project on the antimicrobial, antitumor, and anti-inflammatory properties of plants on Portuguese students' awareness, knowledge, and competencies.International Journal of Environmental Research and Public Health. https://doi.org/10.3390/IJERPH120302437

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative research in psychology, 3(2), 77-101.

Candel, M. J. J. M. (2001). Consumers' convenience orientation towards meal preparation: conceptualization and measurement. Appetite, 36(1), 15–28. doi:10.1006/appe.2000.0364

Carbone, E.T.; Zoellner, J.M. Nutrition and health literacy: A systematic review to inform nutrition research and practice. J. Acad. Nutr. Diet. 2012, 112, 254–265.

Chopera, P., Chagwena, D. T., & Mushonga, N. G. T. (2014). Food label reading and understanding in parts of rural and urban Zimbabwe.African Health Sciences. https://doi.org/10.4314/AHS.V14I3.12

Dharni, K., & Gupta, K. (2015). Exploring antecedents of healthy food choices: an Indian experience. International Journal of Consumer Studies, 39(2), 101–108. https://doi.org/10.1111/ijcs.12156

Engler-Stringer, R. (2010). Food, cooking skills, and health: A literature review. Canadian Journal of Dietetic Practice and Research, 71(3), 141–145. https://doi.org/10.3148/71.3.2010.14

Evans, J.R. and Mathur, A. (2018), "The value of online surveys: a look back and a look ahead", Internet Research, Vol. 28 No. 4, pp. 854-887. https://doi.org/10.1108/IntR-03-2018-0089

Fitri, N., Metty, M., & Yuliati, E. (2020). Pengetahuan dan kebiasaan membaca label informasi nilai gizi makanan kemasan tidak berhubungan dengan status gizi pada mahasiswa asrama Kutai Kartanegara di Yogyakarta. GIZIDO, 12(1), 45.

Giró-Candanedo, M.; Claret, A.; Fulladosa, E.; Guerrero, L. Use and Understanding of Nutrition Labels: Impact of Diet Attachment. Foods 2022, 11, 1918. https:// doi.org/10.3390/foods11131918

Grunert, K.G., Wills, J.M. A review of European research on consumer response to nutrition information on food labels. J Public Health 15, 385–399 (2007). https://doi.org/10.1007/s10389-007-0101-9

Guttersrud, O.; Dalane, J.O.; Pettersen, S. Improving measurement in nutrition literacy research using Rasch modeling: Examining the construct validity of stage-specific 'critical nutrition literacy' scales. Public Health Nutrition 2014, 17, 877–883, doi:10.1017/S1368980013000530. (p. 887).

Hernandez, K. J., Gillis, D., Kevany, K. ., & Kirk, S. (2022). Towards a common understanding of food literacy: a pedagogical framework. Canadian Food Studies La Revue Canadienne Des études Sur l'alimentation, 8(4). https://doi.org/10.15353/cfs-rcea.v8i4.467

Huda, Q. A., & Andrias, D. R. (2016). Sikap dan perilaku membaca informasi gizi pada label pangan serta pemilihan pangan kemasan. Media Gizi Indonesia, 11(2), 175–181.

Ishtiaq, M. (2019). Book Review Creswell, JW (2014). Research Design: Qualitative, Quantitative and Mixed Methods Approaches . Thousand Oaks, CA: Sage. English Language Teaching, 12(5), 40.

Jones, M., Dailami, N., Weitkamp, E., Salmon, D., Kimberlee, R., Sherwin Morley, A., & Orme, J. (2012). Food sustainability education as a route to healthier eating: evaluation of a multi-component school program in English primary schools.Health Education Research. https://doi.org/10.1093/HER/CYS016

Manjrekar, D., Bahurupi, Y., Aggarwal, P., & Singh, M. (2024). Food labelling exemptions: A scientific and comprehensive analysis. National Journal of Community Medicine, 15(4), 3739. https://doi.org/10.55489/njcm.150420243739

Mmopelwa, L. M. (2012). Consumer understanding of nutrition labeling. Journal of Consumer Research.

Nithra, Kitreerawutiwong. (2022). Exploration of the definition and components of food and nutrition literacy among junior secondary school students: a qualitative study. BMC Nutrition, 8(1) https://doi.org/10.1186/s40795-022-00519-6

Pane, P. S. (2016). Analisis tingkat kepatuhan membaca label pangan pada mahasiswa gizi Institut Pertanian Bogor. [Skripsi, Departemen Gizi Masyarakat, Fakultas Ekologi Manusia, Institut Pertanian Bogor]. Institut Pertanian Bogor

Rivishani, Chandrasekara., Madhura, Jayasinghe. (2022). Nutrition Literacy for Human Health: A Review on Current Global and Sri Lankan Scenario. https://doi.org/10.4038/vjs.v1i2.11

Silva, P., Araújo, R., Lopes, F., & Ray, S. (2023). Nutrition and Food Literacy: Framing the Challenges to Health Communication. Nutrients, 15(22), 4708. https://doi.org/10.3390/nu15224708

Sulochana, B., & George, L. S. (2015). Lifestyle Practices among Students of Different Nationality in a Selected University.International Journal of Nursing Education. https://doi.org/10.5958/0974-9357.2015.00084.7

Turconi, G., Celsa, M., Rezzani, C., Biino, G., Sartirana, M. A., & Roggi, C. (2003). Reliability of a dietary questionnaire on food habits, eating behavior, and nutritional knowledge of adolescents. European Journal of Clinical Nutrition, 57(7), 753–763. https://doi.org/10.1038/sj.ejcn.1601587

Tzenios, N. (2022). Nutrition and health education OSF Preprints. https://doi.org/10.31219/osf.io/kx6nz

Wang, X. (2024). The impact of food nutrition labels on consumer behavior: A cross-national survey and quantitative analysis. International Journal of Public Health and Medical Research, 1(2). https://doi.org/10.62051/ijphmr.v1n2.03

Worsley, A. (2002). Nutrition knowledge and food consumption: can nutrition knowledge change food behavior? Asia Pacific Journal of Clinical Nutrition, 11(s3), S579–S585. https://doi.org/10.1046/j.1440-6047.11.supp3.7.x