## Knowledge-driven Integration of Meat Storage and Safety Practices among College of Science Undergraduate Students of Polytechnic University of the Philippines - Sta. Mesa

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**Abstract:** Food safety is crucial in protecting the health of consumers, maintaining integrity in the entire food industry, and ensuring regulatory compliance. Food is a universal need for survival, and everyone is at risk of engaging in improper food handling, which increases vulnerability to foodborne illnesses. The level of knowledge or awareness and meat storage practices of students are behaviors influenced by various demographic factors. The Health Belief Model examines the relationship of such demographic factors towards the attitude, perception, and actions of individuals on perceived risk. This study aims to analyze and understand the correlation of said behaviors with course programs, prior food poisoning experience, and food handling of university students. The study employed randomized responses from 89 university students (n=89) under the College of Science at the Polytechnic University of the Philippines–Sta. Mesa (Manila). The results were subjected to measures of central tendency for score ranking and inferential statistics. The statistics were compared using Pearson 'r' Product Moment Correlation to determine the degree of relationship between the knowledge and practices on meat storage and safety. No statistically significant differences were found between the course program of students, food poisoning experiences, level of knowledge, and awareness regarding proper meat storage practices. However, increased frequency and involvement in meat handling have shown a positive correlation, indicating that there is a correlation between food handling and proper meat storage practices of university students.

**Keywords:** meat storage practices, food handling, food safety, meat science and technology **Conference Title:** ICFSN 2025: International Conference on Food Science and Nutrition

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