ESTIMATION OF LYSINE INTAKE AMONG FILIPINO PHYSIOLOGICAL GROUPS

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Background:
Lysine is an essential amino acid which is important for proper growth, production of carnitine, calcium absorption, and formation of collagen. It could be obtained from natural sources of food or from nutrition supplements. While lysine in the diet is considered safe, excessive doses may cause gallstones. On the other hand, deficiency in lysine may cause fatigue, nausea, dizziness, loss of appetite, agitation, bloodshot eyes, retarded growth, anemia, and reproductive disorders.

Objectives:
This study provided estimates of the lysine intake of Filipinos aged 6 months to 49 years old and compared them with the lysine recommendations of the World Health Organization.

Materials and Methods:
A secondary data analysis of the 2013 National Nutrition Survey using the two-day 24 hour food recall was done. The lysine values of food items were extracted from the USDA Nutrition Database and other Food Composition Tables from other Asian Countries.

Results and Findings:
Generally, the average lysine intakes of all the age groups were 3 times higher compared to their respective lysine recommendations. Among the adolescents and adults population, the recommended lysine intakes were met. While for infants and children, only about 90% met the recommended lysine intakes. In terms of lysine inadequacy, prevalence was highest among infants (50%). It was also observed that average lysine intake increases as their wealth index increases. On the contrary, average lysine intake decreases as age and weight increases, which is worth noting since a person’s body weight also affects lysine requirement.

Conclusion and Recommendation:
Mean lysine intake in all age groups are higher than the lysine requirement which concludes that the Filipino diet is generally adequate in lysine. However, inadequate lysine intake was still observed among half of the infant population. Given this information, interventions addressing lysine inadequacy should be focused on this particular age group. One effective medium is to provide complementary foods utilizing food items with complementing proteins to achieve adequate intake of amino acids.