Nutrition Assistant Application

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Paper1: Lynn Parker Klees, MA, RDN, LDN, FAND, Nutrition 100 Nutritional Applications for a Healthy Lifestyle,2019.

A primary goal of the course is to provide you with information backed by nutritional science, and a variety of resources that use scientific evidence to optimize health and prevent disease. This text was designed to support, enrich, and expand the materials provided in NUTR 100. The text links to original research articles, reliable websites, and Wikipedia. If you are interested in a deeper dive into a specific topic, hopefully, you will find it here.NUTRITION 100 Nutritional Applications for a Healthy Lifestyle is designed as a prevention course. If you make a commitment to empowering yourself with scientific evidence as a strategy for achieving a healthier diet, you will not only enjoy a higher quality of life but will save yourself an amazing amount of time and money. Choosing to eat in a manner that promotes health will allow you to be more productive in all areas of your life. Scientific evidence has consistently shown that a healthy lifestyle results in a person living longer and spending less money on health care costs.

Paper2: Hanna Hauptmann, Nadja Leipold, Monika Wintergerst, Effects and challenges of using a nutrition assistance system: results of a long-term mixed-method study, 15 October 2021.

Healthy nutrition contributes to preventing non-communicable and diet-related diseases. Recommender systems, as an integral part of mHealth technologies, address this task by supporting users with healthy food recommendations. However, knowledge about the effects of the long-term provision of health-aware recommendations in real-life situations is limited. This study investigates the impact of a mobile, personalized recommender system named Nutrilize. Our system offers automated personalized visual feedback and recommendations based on individual dietary behavior, phenotype, and preferences. By using quantitative and qualitative measures of 34 participants during a study of 2–3 months, we provide a deeper understanding of how our nutrition application affects the users' physique, nutrition behavior, system interactions and system perception. Our results show that Nutrilize positively affects nutritional behaviour (conditional R2=.342) measured by the optimal intake of each nutrient. The analysis of different application features shows that reflective visual feedback has a more substantial impact on healthy behaviour than the recommender (conditional R2=.354). We further identify system limitations influencing this result, such as a lack of diversity, mistrust in healthiness and personalization, real-life contexts, and personal user characteristics with a qualitative analysis of semi-structured in-depth interviews. Finally, we discuss general knowledge acquired on the design of personalized mobile nutrition recommendations by identifying important factors, such as the users' acceptance of the recommender's taste, health, and personalization.

Paper3: John B. Mason, David Sanders, Philip Musgrove, Soekirman, and Rae Galloway. Community Health and Nutrition Programs,2006.

Rapid improvements in health and nutrition in developing countries may be ascribed to specific, deliberate, health- and nutrition-related interventions and to changes in the underlying social, economic, and health environments. This chapter is concerned with the contribution of specific interventions, while recognizing that improved living standards in the long run provide the essential basis for improved health. Consideration of the environment as the context for interventions is crucial in determining their initiation and in modifying their effect, and it must be taken into account when assessing this effect. Undoubtedly much change has stemmed from scientific advances, immunization being a prominent case. However, the organizational aspects of health and nutrition protection are equally critical. In the past several decades, people's contact with trained workers has been instrumental in improving health in developing countries. This factor applies particularly to poor people in poor countries but is relevant everywhere; indeed, it is a reason that social services have essentially eliminated almost all occurrences of child malnutrition in Europe (where, when malnourished children are seen, it is caused by neglect).

Paper4: Venketeshwer Rao, Leticia Rao, A. K. M. Aminul Islam, Md Ahiduzzaman, Nuts and Nut Products in Human Health and Nutrition November 24th, 2021.

Consumption of nuts dates back to the prehistoric times. Nuts were an important part of the diet of early humans. Since then, humans have shown continued interest in the consumption of nuts and more recently in nut products as well, both for their taste and for their nutritional quality and health benefits. Mediterranean diets that are associated with lower incidence of several chronic diseases in particular, contain significant amounts of nuts [1, 2, 3]. Several epidemiological and human intervention studies since then have provided evidence for the association between the consumption of nuts and reduced risk in the incidence of several chronic diseases such as cancer, cardiovascular diseases, diabetes mellitus, obesity and high blood pressure just to name a few [4, 5, 6]. These observations encouraged scientific search to investigate the reasons as to why nuts are considered to promote health. This introductory chapter will look into the diversity of nuts that are consumed by humans and their nutritional and phytochemical composition. It will also discuss briefly the scientific evidence supporting the health beneficial properties of nuts. Chapters that follow this introductory one are authored by internationally known researchers and will cover various aspects of tree nuts and peanuts.