

# NUTRITION ASSISTANT APPLICATION

Team ID:PNT2022TMID12789

## **1.Mobile cloud based system recognizing nutrition and freshness of food image**

Diptee Kumbhar , Sarita Patil ” **Mobile cloud based system recognizing nutrition and freshness of food image,**” 2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS),2017,pp.709-714, DOI:10.1109/ICECDS.2017.8389528

- Along with becoming commonplace in many facets of people's life during the past few years, mobile-based applications.
- Researchers and business are focusing on developing applications that patients may use as a key component of their wellness, preventative, or treatment process in order to harness the potential of this trend for healthcare-related objectives.Their weight, eating healthier and avoiding obesity, a system that canmeasure calories and nutrition in every day meals can be very useful.
- We suggest a system for measuring food calories that is cloud-based and mobile.
- Our framework offers users beneficial and clever procedures so they can keep tabs on their calorie consumption and measure their food intake.
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- This technology increases the process's precision for measuring calories consumed.

## **2.Personalized Nutrition Solution Based on Nutrigenomics**

Jitao Yang, “**Personalized Nutrition Solution Based on Nutrigenomics**”, 2019 19th International Conference on Computational Science and Its Applications (ICCSA),2019, pp. 73-103 ,DOI: 10.1109/ICCSA.2019.00006

- People need a variety of nutrients in their diets, including proteins, vitamins, and minerals, to sustain good health.
- Many people are classified as having an unbalanced diet due to the prevalence of bad eating habits, which can lead to diseases including obesity, diabetes, and dyslipidemia.

- Therefore, one of the current major issues in nutrition healthcare science is translating basic nutritional knowledge into useful dietary guidance.
- Several worldwide and national dietary guidelines offer nutrition recommendations for various food intakes, but they do so in a way that is more generic than specifically individualised.
- Nutrigenomics offers a promising method for creating individualised dietary plans for people or population subgroups, and it advances our understanding of the relationship between genomics and the development of customised nutritional science.
- In this study, we create and put into practise a mobile professional customised nutrition advice platform that enables the use of the most recent nutrigenomics research at the population level, population subgroup level, and even individual level.

### **3. The use of mobile apps to improve nutrition outcomes.**

Ktenris N DiFilippo, Wen-Hao Huang, Karen M. Chapman-Novakofski, "The use of mobile apps to improve nutrition outcomes", 2015 jul:21, pp-243-53, DOI: 10.1177/1357633X15572203

- Studies that were descriptive, did not contain applications, and were centred on text messaging, digital photography, app development, app satisfaction, or app practicality were disregarded.
- Using the Academy of Nutrition and Dietetics Evidence Analysis Manuals, we assessed the quality of the articles.
- Data for knowledge, behaviour, and weight change were extracted. Only four of the 12,010 titles from PubMed, 260 from CINAHL, and 4762 from Web of Science that were found in our initial search satisfied all of the search parameters.
- We searched PubMed, CINAHL (January 2008–October 2013), and Web of Science using app(s), cell phone, iPads, mobile phone, mobile telephone, smart phone, mobile, and mHealth as search terms with diet, food, and nutrition as qualifiers (January 2008-January 2014).
- Three articles received positive quality ratings, but only one of them mentioned knowledge outcomes.
- Increased diet monitoring adherence ( $p = 0.001$ ) and lower attempt to continue diet without app ( $p = 0.024$ ) were two behavioural improvements in the trials that were analysed. However, there are few studies that have looked at the use of nutrition apps as supplemental educational interventions.
- The majority of applications target weight loss, with varying degrees of success. We conclude that further investigation on the use of educational apps is required, including behaviour theory within the apps and better study design.

#### **4. Good Sports Nutrition.**

Ruyao Gong, Nan Ge, Jijie Li," **Good Sports Nutrition**". International society of sports nutrition position stand 2019, sports and energy drinks 2019, 2020/10/31, pp- 2017;14:1-21, DOI: 10.3390/nu13113771

- This essay examines sports diets, supplements, and nutrition for athletes. The term "sports nutrition" refers to all nutritionally relevant items created primarily for athletes.
- Such nutrition's primary goals are to boost an athlete's performance and endurance. Sports nutrition is a mixture of easily digestible and highly nourishing ingredients, not doping.
- Any diet should include three key components: carbs, which provide energy, liquids, which protect the body from overheating, proteins, which preserve muscle mass, and fats, vitamins, and minerals.
- When caring for athletes, a nurse may find it helpful to have knowledge of sports nutrition because it will help them understand what is in their diet and any potential effects.

#### **5. Development of a Smartphone Application for Dietary Self-Monitoring.**

Jeong Sun Ahn,Dong Woo Kim,Jiae Kim,Haemin Park,Jung Eun Lee."**Development of a Smartphone Application for Dietary Self-Monitoring**". Department of Food and Nutrition, Seoul National University, Seoul, South Korea, pp-2019 Sep 23;6:149, DOI: 10.3389/fnut.2019.00149.

- The main characteristics of the Well-D, a mobile app for dietary self-monitoring designed to evaluate and track food intake, are discussed in this article.
- 102 persons who were 18 years of age or older were invited to use Well-D for at least three days in order to gauge the app's acceptance.
- They recorded their likes, dislikes, and suggestions for how to make Well-D better after using the programme.
- A smartphone app for nutritional assessment and monitoring may be able to encourage people and groups to adopt healthy habits.

## **6.Barriers and Enablers to Delegating Malnutrition Care Activities to Dietitian Assistants.**

Alita Rushton , Judith Bauer , Adrienne Young , Heather Keller , Jack Bell. "Barriers and Enablers to Delegating Malnutrition Care Activities to Dietitian Assistants", pp-2022 Feb 28;14(5):1037, DOI: 10.3390/nu14051037.

- Giving dietician assistants responsibility for treating malnutrition can improve patient, healthcare, and workforce results.
- But dietitians continue to provide most of the nutrition therapy for hospital inpatients who are malnourished or at risk of it, which is a method that is not thought to be sustainable.
- This study sought to identify obstacles to and facilitators of giving dietician assistants responsibility for malnutrition care.
- This qualitative descriptive study was integrated into a larger quality assurance initiative to scale and disseminate transdisciplinary and systematised malnutrition care models.
- 23 distinct semi-structured interviews with members of the nutrition and dietetic teams at seven hospitals were conducted.
- Working with the human factors; weighing the benefits and risks of delegation; developing competence, capability, and capacity; and recognising contextual factors were the four themes that emerged from the inductive thematic analysis used to identify the barriers and enablers to the delegation of malnutrition care to dietitian assistants.
- This study reveals fresh perspectives on what prevents and facilitates dietician assistants from providing care for malnutrition.
- Successful delegation to dietitian assistants necessitates the individual perspectives of people in their collective healthcare roles and as individuals, changing words into deeds that value delegation, participating in processes to increase everyone's competency, capability, and capacity, and being receptive to context and climate.

## **7.Co-designing nutrition interventions with consumers: a scoping review.**

Alita Rushton , Judith Bauer , Adrienne Young , Heather Keller , Jack Bell. "Co-designing nutrition interventions with consumers: a scoping review".

**Department of Nutrition and Dietetics, The Prince Charles Hospital, Chermside, QLD 4032, Australia.**pp-2022 Feb 28;14(5):1037, DOI: 10.3390/nu14051037

- About nutrition intervention research using consumer co-design, nothing is known. This scoping review's objective was to identify and synthesise the available data on the use and use of consumer co-design in nutrition interventions at the moment.

- □ The methodological framework created by Arksey and O'Malley and improved by the Joanna Briggs Institute utilising a modified 2weekSR technique provides the foundation for this scoping study. Medline, EMBASE, PsycInfo, CINAHL, and Cochrane were all searched. We only considered studies that met the 'Collaborate' or 'Empower' levels of the IAP2 Public Participation Spectrum and involved consumers in the co-design process. Studies were combined based on two key ideas: co-design for nutrition interventions, part 1.
- □ The original search turned up 8157 papers, and 19 studies were among them (comprising of 29 articles). The trials included individuals from seven different nations and a variety of intervention methods. In the previous five years, sixteen of the investigations were published. Only two studies reported a collaboration with consumers across all phases of the research, and co-design was most frequently employed for the development of the intervention. Consumer involvement was generally underdocumented. The numerous research did not reveal a preferred co-design framework or approach.
- Although consumer co-design for nutrition interventions has increased recently, real collaborations with consumers at all stages of nutrition intervention research are still rare. It is possible to create equal partnerships with consumers in nutrition research and to improve the reporting of consumer involvement in co-design. The copyright for this article is reserved. Reserved rights.

## **8.The delivery of patient centred dietetic care in subacute rehabilitation units: A scoping review**

Hannah T Olufson , Adrienne M Young , Theresa L Green. **"The delivery of patient centred dietetic care in subacute rehabilitation units: A scoping review"**. Faculty of Health & Behavioural Sciences, School of Nursing, Midwifery & Social Work, University of Queensland, Brisbane, QLD, Australia.pp- 2022 Feb;35(1):134-144. DOI: 10.1111/jhn.12940. Epub 2021 Sep 9.

- Patient-centered care (PCC) has a positive impact on both organisational and personal results. Because effective rehabilitation is a collaborative and patient-centered approach, it is crucial that dietitians working in rehabilitation units are supported in providing PCC. This scoping review's goal was to investigate the literature on the topic of providing dietetic PCC to patients receiving rehabilitation in subacute inpatient facilities.
- For pertinent published literature, PubMed, MEDLINE, CINAHL, Embase, and Scopus searches were conducted. Additionally, searches for unpublished and grey literature were conducted. Studies that showed the delivery of PCC by certified dietitians through individualised consultations with adult patients undergoing subacute rehabilitation were eligible for inclusion and data extraction.

- PubMed, MEDLINE, CINAHL, Embase, and Scopus searches were done to find relevant published material. Grey literature and unpublished works were also searched for. Studies that demonstrated the individualised consultations with adult patients undergoing subacute rehabilitation as a means of delivering PCC by qualified dietitians were eligible for inclusion and data extraction.
- This scoping research found a sizable gap in the body of knowledge concerning the provision of dietetic PCC in subacute rehabilitation facilities. The delivery of care that is really patient-centered is significantly more extensive than individualising interventions or planning ongoing services, according to contemporary descriptions of PCC. This raises the question of whether or not the subacute rehabilitation unit's nutrition care is patient-centered.

## **9.Characteristics of Smartphone Applications for Nutrition Improvement in Community Settings: A Scoping Review.**

Emma Tonkin , Julie Brimblecombe , Thomas Philip Wycherley. "Characteristics of Smartphone Applications for Nutrition Improvement in Community Settings: A Scoping Review". Centre for Population Health Research, School of Health Sciences, University of South Australia, Adelaide, South Australia, Australia; and emma.tonkin@menzies.edu.au.pp- 2017 Mar 15;8(2):308-322, DOI: 10.3945/an.116.013748.

- Smartphone applications are being used more and more to help community-based nutrition improvement.
- The lack of useful literature, however, makes it difficult for academics and practitioners to select or create health applications.
- This work maps the features, critical information, theoretical frameworks, and procedures for user testing of programmes designed to promote nutrition in communal settings.
- Published, peer-reviewed literature reporting on apps with a specific nutrition-improvement focus intended for usage in the community was mapped using a systematic, scoping review process.
- Following screening, publications were divided into 4 categories: studies on dietary self-monitoring, studies on nutrition improvement, articles describing applications, and qualitative studies on application development.
- Studies were also divided into categories for mapping purposes depending on the intended audience and purpose of the programme or application.
- The database search turned up 4818 titles, and 64 of those were articles. The broad categories of attributes shown to be present in applications typically matched with various behaviour change support techniques prevalent in many traditional behavioural change models.

- 4818 titles were found in the database, 64 of which were articles. In many classic behavioural change models, the broad categories of features that are shown to be present in applications are often paired with different behaviour change support strategies.
- A little more than half of the studies mentioned conducting consumer testing before deploying the application. Collaboration between practitioners and application developers encourages a proper balance of functionality and evidence-based information.
- For programme development teams and practitioners looking to employ an app for better nutrition in community settings, this work offers a unique resource.