

Chapter 7

Mobile Apps for Human Nutrition: A Review

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ABSTRACT

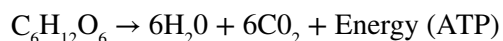
Lack of proper diet causes many diseases like night blindness, gum death, rickets, osteomalacia, etc. Similarly, undernutrition will cause a low intelligence quotient (IQ), osteoporosis, anemia, scurvy, pellagra, etc. Over-nutrition will result in obesity, Type II diabetes mellitus, and ischemic heart diseases. Also, the unhygienic intake of food, intake of food on no fixed time, intake of fast food intake of other unhealthy stuff can lead to irregularities in the human body. Adopting healthy habits, physical activity, exercise, sports, and walking can lead to a healthy lifestyle of an individual. In addition, today's busy schedule and less time availability restricts individuals to visit the doctors or nutritionists. Many mobile applications were developed for monitoring and calculating an energy level as well as healthy nutrition. This review chapter has assessed the use and features of various mobile phone health applications, which helps individuals to overcome and monitor the above-mentioned health-related issues.

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1. INTRODUCTION

The main purpose of this review paper is to educate those who are facing hurdles in visiting physicians for their regular health checkups and ask for their regular nutritional balance, due to any reason such as belonging to remote areas, having a busy schedule, having no knowledge about varieties of apps used in assessment of Human Nutrition. They always need a reliable and efficient source that is time saving, costless and provide them an easy way for nutritional assessment on their doorsteps to maintain a balance nutrition and healthy life, therefore, keeping in view the above, the use of smart gadgets and mobile apps and their progression in innovation plays a vigorous role in maintaining a balance nutrition and equip one to have enough knowledge about the usage and function of variety of collected nutritional apps on a single click (Boushey, Spoden, Zhu, Delp, & Kerr, 2017). This review includes a variety of nutritional apps along with their workflow regarding diet coach, food diary, weight loss, calories counter and pregnancy applications.

Along with this, it is mandatory to know the basic knowledge of human nutrition. Human Nutrition is the area of Medical Sciences which deals with nutrients and their influences on human routine eating, health and exercises. Nutrition or nutrients provide growth and development to human beings as well as to plants. In Nutrition mostly appropriate diet is that which contains the micro and macronutrients. Furthermore, in nutrition we study about nutrients which give energy, e.g., when an individual takes some food, it separates in smaller molecules which discharges energy in the form of Adenosine Tri Phosphate (ATP) as shown in the reaction below.



The reaction above shows that nutrients undergo catabolism process to give us energy. Similarly, nutrients are essential in human life for example, a fetus is totally reliant on her mom for nutrition. Insufficient nutrition causes diseases, influences growth and nourishment of a child. A poor diet with a smaller amount of iron causes iron deficiency which results in tiredness and retard in attention in studies. The absence of vitamin A causes night blindness, the absence of vitamin C causes gum bleeding, the absence of vitamin D causes rickets in kids and osteomalacia in adults, and the absence of meats causes macrocytic anemia and so on (Organization, 2000).

Furthermore, both abundance and insufficiency of nutrients causes diseases like low IQ, osteoporosis, anemia, scurvy, pellagra, night blindness and so forth and over nutrition brings about obesity, Type II diabetes mellitus (Because of Intake of Abundance Glucose), ischemic (heart sicknesses) (Because of Intake of Overabundance Cholesterol) (Alamgir, Sami, & Salahuddin).

2. BACKGROUND

Even many papers published on nutritional mobile phone applications, no studies yet have been analyzed that covers the functions of various nourishing applications, altogether. Before, individuals utilize conventional dietary evaluation strategies (Pen or Paper), which required day by day recording of every food consumed and its vitality content (Jospe, Fairbairn, Green, & Perry, 2015).

This strategy for recording was challenging especially to get precise outcomes for revealing relationship between diet and health. Besides, record keeping trouble (Either because of lapse of memory or

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