

## عنوان مقاله:

Carbulin: A Comprehensive Mobile Application for Advanced Carbohydrate Counting and Diet- and Insulin-Regimen Planning for Type ۱ Diabetic Patients

## محل انتشار:

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## خلاصه مقاله:

Nowadays, the introduction of the so-called 'diabetes technology', either hardware/device or software, to different aspects of day-to-day living in patients with diabetes aims to improve blood glucose control and various lifestyle features. The coordination of vast context of diabetes education/training, particularly in the area of medical nutrition therapy, is considered as a great concern. On the other hand, Iranian food culture consists of a set of traditional dietary patterns and food consumption habit. The study was aimed to develop "the Comprehensive Mobile Application of Advanced Carbohydrate Counting and Diet- and Insulin-Regimen Planning" to help type ۱ diabetic patients, improving their health status. The programming language of Kotlin, JavaScript, Node JS, and HTML5 was used for the mobile app development. The app was developed with the following abilities: ۱) educating users on different aspects of disease control including, updated general treatment guidelines on physical activity, medical nutrition and insulin therapy, stress management, and the patient's specific goals and dietary needs, ۲) performing advanced carbohydrate counting using both picture-represented and kitchen-scale of carbohydrate foods as well as traditional Iranian foods, ۳) recommending the patient's specific insulin dose, either short- or rapid-acting, based on the carbohydrate content of the selected meal or the selected amount of Iranian foods, ۴) recommending the personalized insulin dose needed for decreasing the high blood glucose levels, and ۵) performing ۳ and ۴ simultaneously. Developing Carbulin was an effort to increase type ۱ diabetes self-management using the traditional Iranian dietary pattern and menu

## کلمات کلیدی:

Mobile Applications, diabetes mellitus, Insulin, Carbohydrates

## لینک ثابت مقاله در پایگاه سیویلیکا:

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