

# **DEVELOPING AN INTERACTIVE SERVICE PLATFORM FOR RENAL DIET EDUCATION USING INTERNET-BASED TOOLS AND WHACK-A-MOLE GAME: A PILOT STUDY**

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## **BACKGROUND**

For slowing the progression of chronic kidney disease (CKD), diet modification plays an important role. Teaching patients the skills to evaluate and modify their diets is resource intensive, and requires considerable instructional time on the provider's side as well as collaborative trial-and-error process with the patient. The teaching burden falls primarily on renal dietitians, therefore new approaches are required.

## **OBJECTIVE**

We developed an interactive service platform for renal diet education to help CKD and dialysis patients.

## **METHODS**

Taichung Veterans General Hospital multidisciplinary team used multimedia and internet-based tools to develop an interactive service platform for CKD and dialysis patients. The diet education system included renal diet information and film, food retrieval system, dietary record management, and educational game. The educational game provided whack-a mole games for six kinds of food (low and high protein, potassium, phosphorous) to attract patients to repeat learning. A pilot field study was conducted where 17 nursing students giving whack-a-mole games and diet education by a dietitian and testing the awareness of renal diet by pre and post test question.

## **RESULTS**

Awareness of renal diet was raised from 49.6% to 63.4% by playing whack-a-mole games, and then auxiliary diet education by a dietitian raised awareness from 63.4% to 84.5% in a pilot field study of 17 nursing students.

## **CONCLUSIONS**

The interactive service platform and educational game may attract patients to repeat learning dietary knowledge, can assist dietitian consultation in renal patients.

## **KEYWORDS**

Chronic kidney disease, Dialysis, Diet education, Whack-a-mole game