

ABSTRACT

SCHEDULING AND DETERMINATION OF HEALTHY MENU FOR DIABETES MELLITUS PATIENTS USING EXPERT SYSTEM WITH FORWARD CHAINING METHOD

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Diabetes Mellitus is a chronic disease that requires meticulous lifestyle management, and one crucial aspect is the stringent control of dietary patterns and menus. However, as of 2022, the number of nutrition experts in Indonesia stands at only 35,652, while the concurrent count of diabetes patients in the country reaches 41,817. Insufficient knowledge regarding improper dietary habits significantly influences the elevation of blood sugar levels. The implementation of an expert system can alleviate the workload of the limited number of experts. This research endeavors to develop a website for scheduling and determining healthy meal plans specifically tailored for Diabetes Mellitus patients, employing an expert system with the forward chaining method. The study successfully devises an expert system based on a website for scheduling and determining nutritious meal plans for Diabetes Mellitus patients. The research findings indicate that this expert system can provide more precise recommendations for individual caloric needs. The creation of an expert system for scheduling and determining healthy meal plans for diabetes patients, considering the respective body proportions of users and incorporating expert knowledge through website-based forward chaining, has been successfully executed. The system operates effectively, proficiently implementing expert knowledge.

Keywords: Diabetes Mellitus, Expert system, Healthy menu, Forward chaining