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Effectively Improving Cognition, Behavior, and Attitude of Diabetes Inpatients through Nutritional Education

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Abstract : Diabetes is a chronic disease. Nutrition knowledge and skills enable individuals with type 2 diabetes to optimize metabolic self-management and quality of life. This research studies the effect of nutritional education on diabetes inpatients in terms of their cognition, behavior, and attitude. The participants are inpatients diagnosed with diabetes at Taipei Tzu Chi Hospital. A total of 103 participants, 58 male, and 45 females, enrolled in the research between January 2018 and July 2018. The research evaluates cognition, behavior, and attitude level before and after nutritional education conducted by dietitians. The result shows significant improvement in actual consumption (2.5 ± 1.4 vs 3.8 ± 0.7; p<.001), diet control motivation (2.7 ± 0.8 vs 3.4 ± 0.6; p<.001), correct nutrition concept (1.2± 0.4 vs 2.4 ± 0.5; p<.001), learning willingness (2.7± 0.9 vs 3.4 ± 0.6; p<.001), cognitive behaviors (1.4 ± 0.5 vs 2.9 ± 0.7; p<.001). AC sugar (278.5 ± 321.5 vs 152.2 ± 49.1; p<.001) and HbA1C (10.3 ± 2.6 vs 8.6 ± 1.9; p<.001) are significant improvement after nutritional education. After nutritional education, participants oral hypoglycemic agents increased from 16 (9.2%) to 33 (19.0%), insulin decreased from 75 (43.1%) to 68 (39.1%), and hypoglycemic drugs combined with insulin decreased from 83 (47.7%) to 73 (42.0%).Further analysis shows that female inpatients have significant improvement in diet control motivation (3.91 ± 0.85 vs 4.44 ± 0.59; p<0.000), correct nutrition concept (3.24± 0.48 vs 4.47± 0.51; p<0.000), learning willingness (3.89 ± 0.86 vs 4.44 ± 0.59; p<0.000) and cognitive behaviors (2.42 ± 0.58 vs 4.02 ± 0.69; p<0.000); male inpatients have significant improvement in actual food intake (4.41± 0.92 vs 3.97 ± 0.42; p<0.000), diet control motivation (3.62 ± 0.86 vs 4.29 ± 0.62; p<0.000), correct nutrition concept (3.26 ± 0.44 vs 4.36 ± 0.49; p<0.000), learning willingness (3.72± 0.93 vs 4.33± 0.63; p<0.000) and cognitive behaviors (2.45± 0.54 vs 4.03± 0.77; p<0.000). In conclusion, nutritional education proves effective, regardless of gender, in improving an inpatient's cognition, behavior, and attitude toward diabetes self-management.

Keywords : diabetes, nutrition education, actual consumption, diet control motivation, nutrition concept, learning willingness, cognitive behaviors
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