

A theory of planned behavior-enhanced intervention to promote health literacy and self-care behaviors of type 2 diabetic patients

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Abstract

Background: Improved health literacy and awareness could help type 2 diabetic patients to control the disease complications.

Objective: The current study aimed to evaluate the impact of theory-based educational intervention on health literacy and self-care behaviors of type 2 diabetic patients in Tonekabon city.

Methods: This randomized controlled trial study was conducted at health care centers in Tonekabon city, Iran, from April 2017, to October 2018. Using multistage random sampling, 166 patients with type 2 diabetes divided into two groups: theory-based intervention ($n = 83$) and custom education ($n = 83$). The data collection tools consisted of demographic information, Theory of Planned Behavior (TPB) measures, health literacy for Iranian adults (HELIA) and summary of diabetes self-care activities (SDSCA). The five 30-minute group training sessions based on the baseline assessment and model constructs along with the targeted pamphlet and m-health strategy were designed for the experimental group. Data were analyzed using chi-square, independent and paired t-test and Analysis of covariance (ANCOVA).

Results: After controlling for pre-test effect, there was a significant difference between the two groups in terms of mean scores of attitudes, subjective norms, perceived behavior control and intention in post-test ($P < 0.001$). Also, after controlling for the pre-test effect, the results showed a significant difference in the self-care domain in the post-test ($P < 0.001$). Finally, after

controlling for the pre-test variable effect, covariance analysis reflects significant difference in total health literacy score and its dimension at posttest ($P < .001$).

Conclusions: Applying TPB based education is suggested to maintain and improve self-care behaviors and health literacy in type 2 diabetic patients and other chronic diseases.

Keywords: Attitude; Behavior change; Diabetes; Health literacy; Self-care behavior.

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