Hereditary Angioedema Attack Diary Mobile Application on Quality of Life and Treatment Compliance

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Abstract

Background: Patients with Hereditary Angioedema encounter problems in managing their treatment regimen because they do not have sufficient information about the disease, and the drugs used are not common. Objective: This research aimed to elucidate the effect of our mobile application, “Hereditary Angioedema Attack Diary,” on patients’ quality of life and treatment compliance. Methods: A mobile diary was generated in which patients, physicians, and nurses communicate with each other and share attack information instantly. Between July 2022 and May 2023, total of 76 HAE patients, 38 in the mobile application group and 38 as controls, were enrolled in this research. The Hereditary Angioedema Attack Diary was evaluated via the SF–36 Quality of Life Scale, Mobile Learning Readiness Scale, Morisky Medication Adherence Scale, and Medication Compliance Reporting Scale mean score—additionally, the application consolidated data on sociodemographic characteristics of patients and disease. Results: The patients evaluated the ease of use of the Hereditary Angioedema Attack Diary mobile application, and 26.3% rated it as very good and 42.1% as good. The sub-dimensions of SF–36 quality of life scale denoted a statistically significant difference in general health perception score ($t = -2.306$, $p = 0.027$), social functionality mean post-test score ($t = -2.099$, $p = 0.039$), physical function, physical role difficulty, emotional role difficulty, energy/vitality, social functionality, self-efficacy and optimism, pain, gender and general health perception ($p < 0.05$). Conclusion: It has been determined that the use of the attack diary mobile application has a supporting effect on patients’ symptom management, quality of life, and compliance with treatment.