Cancer-related fatigue (CRF) is a distressing symptom that affects the quality of life (QOL) of patients with breast cancer and their families. The effectiveness of pharmacologic therapies alone has not been sufficient in the management of CRF; therefore, a combination of pharmacologic and nonpharmacologic approaches is justified. The purpose of this article is to critically review the literature related to nonpharmacologic supportive strategies in enhancing QOL among patients with breast cancer experiencing CRF. The results show that exercises (e.g., home-based exercise, supervised exercise), education and counseling, sleep therapy, and complementary therapy are feasible as effective nonpharmacologic supportive interventions to improve QOL in patients with breast cancer suffering from CRF. Therefore, nurses may consider these nonpharmacologic supportive strategies as adjunctive interventions to pharmacologic interventions in enhancing QOL for patients with breast cancer experiencing CRF. However, because previous studies had some methodologic limitations, such as small sample size, lack of objective measures, or predominantly Caucasian sample, future research to further explore nonpharmacologic interventions in this area is warranted.