Acupuncture is being adopted by cancer patients for a wide range of cancer-related symptoms including highly prevalent psychological symptoms like depression, anxiety, insomnia, and impairment in quality of life. Pharmacological treatment of prevalent symptoms like anxiety, depression, and sleep disturbance can contribute to the high chemical burden already carried by cancer patients, creating additional side effects. As a result, patients and providers alike are interested in evidence-based nonpharmacologic alternatives like acupuncture for these symptoms. This article reviews the current literature (January 2000 through April 2013) for acupuncture in cancer-related psychological symptoms with attention to both efficacy and acupuncture-specific methodology. All published studies that met our review criteria demonstrate a positive signal for acupuncture for the treatment of depression, anxiety, sleep disturbance, and for improving quality of life with most results showing statistical significance. However, there are only a handful of acupuncture studies that were specifically designed to evaluate depression, sleep disturbance, and quality of life as primary outcomes, and no studies were found that looked at anxiety as a primary outcome in this population. Published studies in cancer patients and survivors show that acupuncture treatment is not only safe but also more acceptable with fewer side effects than standard of care pharmacological treatments like antidepressants. Finally, there is wide variability in both the implementation and reporting of acupuncture methods in the literature, with only 2 of 12 studies reporting full details of acupuncture methods as outlined in the revised Standards for Reporting Interventions in Clinical Trials of Acupuncture guidelines, published in 2010 and providing an essential framework for the reporting of acupuncture methodology. This lack of methodological detail affects outcomes, generalizability, and validity of research involving acupuncture. Reasons for ongoing challenges in the development of high-quality acupuncture trials are discussed. In conclusion, results are encouraging for the development of randomized trials to directly evaluate the therapeutic impact of acupuncture in cancer-related psychological symptoms, including depression, anxiety, sleep disturbance, and quality of life, but attention to acupuncture methodological specific challenges in the development of high-quality research is necessary.