Although the burden of a cancer diagnosis for patients is profound, healthcare systems often fail to address patients’ and families’ psychosocial, information, and care coordination needs. The authors of this article designed an oncology nurse navigator program to proactively address these care gaps and tested the program’s effectiveness in providing high-quality cancer care through a randomized, controlled trial. The program’s model was informed by research synthesizing the perspectives of patients, families, clinicians, and experts throughout the country. The authors systematically incorporated feedback from participating clinical departments to improve the effectiveness of the program. This article details the intervention to help inform other systems interested in implementing an oncology nurse navigator program.