



Tailored Navigation of Lung Cancer Screening and Smoking Cessation in LGBTQ+ Populations

Bridging Gaps, Building Trust

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Lung cancer remains the leading cause of cancer-related death in the United States, claiming more lives annually than breast, prostate, and colorectal cancers combined (1). Although lung cancer mortality has recently decreased, driven by population-level tobacco cessation efforts, increased lung cancer screening (LCS), and advances in cancer treatments, these benefits have not been equitably distributed (2). Many individuals, particularly those from marginalized communities and who identify as LGBTQ+, face barriers to accessing tobacco cessation care, LCS and early detection, and high-quality treatment (3–5). LCS and tobacco cessation are two evidence-based interventions that, when implemented equitably, can dramatically reduce mortality and improve long-term outcomes (6, 7).

Despite national progress in tobacco control and screening uptake, persistent disparities continue to undermine these gains. LGBTQ+ individuals, in particular, face disproportionately high rates of smoking and delayed cancer diagnoses, driven by

structural inequities, stigma, and gaps in culturally responsive care (8). These disparities are actionable, and addressing them requires intentional design, inclusive outreach, and commitment to equity at every level of implementation.

Against this backdrop, emerging interventions that center the needs of LGBTQ+ individuals offer a timely and necessary shift. Although evidence on the effectiveness of navigation support for improving LCS knowledge and completion remains mixed (9), in this issue of *AnnalsATS*, Triplette and colleagues (pp. 1592–1600) introduce a patient-targeted approach that directly addresses longstanding gaps (8). In partnership with a community collaborator, the authors tailored navigation to lived experiences and barriers faced by LGBTQ+ patients, moving beyond generic outreach to deliver personalized support that builds trust and drives engagement in LCS, tobacco cessation attempts, and sustained abstinence. We read this article with great interest because it exemplifies the kind of equity-driven innovation that involves a needs assessment through an established community partnership to design an intervention that provides navigational support and directly addresses the needs of the target community.

This study evaluated the implementation of a tailored patient navigation intervention among LGBTQ+ individuals eligible for LCS per U.S. Preventive Services Task Force guidelines who were current smokers. Over a 90-day period, the authors assessed changes in LCS knowledge, intervention acceptability, LCS care completion, and tobacco cessation using pre/post surveys, electronic health record data, exhaled carbon monoxide levels, and validated tools including Acceptability of Intervention Measure and Patient Satisfaction with Navigator Interpersonal Relationship scores (8, 10).

This study is unique in its community engagement and intersectional design. Before launching the intervention, the authors partnered with local LGBTQ+ organizations to conduct interviews and focus groups that identified key determinants of LCS and tobacco cessation among screening-eligible LGBTQ+ adults, revealing strong interest in patient navigation as a dual-delivery strategy. Recruitment was community-based and codeveloped with Seattle's LGBTQ+ Center, leveraging flyers, social media, in-person outreach, and snowball sampling to reach a diverse and representative sample. Notably, the intervention uniquely integrated LCS and smoking cessation support, reflecting the real-world overlap in care needs for LGBTQ+ individuals who are disproportionately affected by tobacco use (4). By addressing the intersection of identity, smoking status, and screening eligibility, the study offers a model for equity-driven implementation that is responsive and has the potential for scalability.

This study exemplifies innovation in design and delivery. Grounded in human-centered and community-engaged approaches, the intervention leveraged validated tools (Acceptability of Intervention Measure, Patient Satisfaction with Navigator Interpersonal Relationship, Lung Cancer Screening-12 (LCS-12) knowledge measure tool, and Lung Cancer Screening Knowledge Score (LKS)) (10–12) to assess changes in LCS knowledge, satisfaction, and acceptability alongside secondary outcomes including LCS completion and biochemically verified smoking cessation. The patient navigator, a certified tobacco treatment specialist, provided pharmacologic therapy and behavioral counseling, supported by ongoing training in LGBTQ+-specific navigation strategies. Navigation was delivered through in-person and indirect modalities, systematically documented by

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time and activity type, with smoking cessation as the most frequent focus. By simultaneously addressing tobacco cessation and LCS completion, the study offers a pragmatic, equity-driven model for integrated preventive care.

As implementation science researchers focused on LCS and tobacco cessation, we have experience in designing and implementing pilot patient outreach and navigation strategies in community hospital settings that serve underserved and marginalized populations. Outreach conducted in community-based or nonclinical environments, as outlined here, offers patients the time and space to process complex information without the time constraints or decisional pressures often present in primary-care visits. This approach aligns screening decisions and smoking cessation with personal health goals while creating opportunities to proactively address logistical (scheduling, transportation, and cost) and personal barriers (stigma and discrimination).

Although this pilot study offers valuable insights into patient navigation and outreach strategies, a few limitations warrant consideration. The small sample size ($N = 41$) limits generalizability, and the 90-day follow-up period may be insufficient to capture the long-term impact of the intervention on screening uptake and smoking cessation. Scalability also presents challenges because the navigator's extensive prior experience and the substantial time investment, >7,000 minutes of total documented patient care, may not be feasible in lower-resource settings. Additionally, one of the primary outcomes, change in LCS knowledge, did not

show significant improvement, suggesting that educational formats beyond navigator-led interactions may be needed to enhance understanding. The lack of a comparison arm and a randomized design also limits attributing outcomes to the intervention.

Building on these findings, future research should prioritize pragmatic trials across diverse care settings to assess real-world effectiveness and adaptability. Testing varied educational modalities, such as printed materials, videos, social media, and community presentations, may help identify formats that better support knowledge gains. Integration with primary-care workflows and evaluation of cost-effectiveness and sustainability will be critical to inform broader implementation and clinical practice modifications.

This publication contributes meaningfully to the growing body of research addressing cancer disparities among LGBTQ+ populations, who face increased risks of tobacco use, delayed cancer diagnoses, and barriers to preventive care (4, 5). Tailored patient navigation has emerged as a promising strategy to mitigate these inequities by fostering culturally competent care, facilitating shared decision-making, and addressing mistrust rooted in historical and ongoing discrimination (9). In LCS, disparities in uptake persist among marginalized groups, including LGBTQ+ individuals, despite national guidelines and modified eligibility criteria (13). The intervention described by Triplette and colleagues builds on navigation models used in other cancer types, such as breast and colorectal cancer, that have demonstrated success in improving access, satisfaction,

and outcomes (14). By integrating community-informed design, LGBTQ+-specific training, and dual focus on LCS and tobacco cessation, this study advances a pragmatic and equity-driven approach to cancer prevention. This work aligns with the National Institute on Minority Health and Health Disparities Research Framework, which emphasizes multilevel influences on health disparities and encourages interventions that span behavioral, sociocultural, and healthcare system domains (15). Additionally, the study's design and evaluation strategy reflect principles of the RE-AIM framework, supporting real-world relevance through attention to "reach, effectiveness, adoption, implementation, and maintenance" (16). Together, these frameworks reinforce the manuscript's contribution to stakeholder-informed solutions that promote health equity in cancer care.

This study offers a replicable model for equity-informed intervention design, demonstrating how tailored navigation can address stigma, mistrust, and structural barriers in LCS and tobacco cessation for LGBTQ+ populations. Researchers, clinicians, and policymakers are encouraged to build on this work by embedding culturally responsive strategies into cancer prevention and care. As the field advances, inclusive, patient-centered navigation must be recognized not merely as feasible, but as foundational to equitable cancer care ensuring that all individuals, regardless of identity, have access to timely, respectful, and effective screening and smoking cessation support. ■

Author disclosures are available with the text of this article at www.atsjournals.org.

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