

# Health Assistants as Patient Navigators: Improving Coordination and Continuity of Care

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#### **ABSTRACT**

Patient navigation programs utilizing health assistants have emerged as a promising intervention to improve coordination and continuity of care, particularly for underserved populations. This paper provides a comprehensive review of the current literature on the roles, impacts, and best practices of health assistants working as patient navigators. A systematic search of PubMed, CINAHL, and other databases identified 17 studies on health assistant patient navigation programs in the last decade. The available evidence indicates that health assistants can effectively serve as liaisons between patients and the healthcare system, provide culturally appropriate education and support, and help patients overcome barriers to care. Health assistant navigators have been associated with increased patient satisfaction, improved appointment attendance, higher screening and vaccination rates, and more timely access to treatments. Key elements of successful programs include thorough training of navigators, establishing trust with patients, and close coordination with interdisciplinary care teams. However, there are still knowledge gaps regarding optimal program design, patient selection criteria, and cost-effectiveness. Further research is warranted on the long-term impacts of health assistant navigation programs on clinical outcomes, costs, and equity of care delivery. Overall, health assistants have significant potential to address the care coordination needs of vulnerable patients, but more rigorous studies are needed to determine the most effective models for utilization of this important workforce.

# INTRODUCTION

Patients frequently encounter difficulties navigating complex healthcare systems, resulting in fragmented, poorly coordinated care (Freeman & Rodriguez, 2011). Care transitions between outpatient, inpatient, and community settings are prone to lapses in follow-up and information exchange (Jackson et al., 2015). These system barriers disproportionately affect vulnerable populations, including racial/ethnic minorities, patients with low socioeconomic status or health literacy, and those with multiple chronic conditions (Kent et al., 2013). Lack of care coordination leads to medical errors, unnecessary utilization, and poor health outcomes (Mitchell et al., 2012).

In recent years, patient navigator programs have emerged as a promising intervention to improve care coordination, especially for underserved groups. Patient navigators are trained personnel who provide personalized guidance to patients across the continuum of care (Paskett et al., 2011). They advocate for patients, coordinate appointments, ensure appropriate medical interpretation, arrange transportation, locate

community resources, and facilitate communication between providers (Wells et al., 2008). Professional navigators may include nurses, social workers, or lay individuals from the local community.

Health assistants, also known as community health workers or promotores(as) de salud in Hispanic/Latino communities, are increasingly being utilized in navigation roles (Enard et al., 2015). Health assistants offer several potential advantages as navigators, given their origins and connections within diverse communities. They can provide culturally appropriate, peer-based education and support to empower patients as they interact with the healthcare system (Brownstein et al., 2011). This paper will examine the current evidence on the utilization, impacts, and best practices of health assistant patient navigation programs.

## **METHODS**

A systematic literature review was conducted to identify studies on health assistants in patient navigator roles published over the past decade. The PubMed, CINAHL, PsychInfo, and Cochrane databases were searched using the following terms: "community health worker", "patient navigator", "care coordination", "continuity of care", and related keywords. The initial search yielded 428 results, which were screened for relevance based on titles and abstracts. After applying inclusion/exclusion criteria, 17 studies were selected for full-text review and data extraction. Inclusion criteria were: 1) published from 2011-present; 2) focused on health assistants/community health workers as patient navigators; 3) reported process and/or outcome measures related to coordination/continuity of care. Exclusion criteria were: 1) interventions that did not specifically utilize health assistants as navigators; 2) studies only describing navigator roles without associated outcomes.

Data extracted from the final sample of studies included: author names, publication year, study design, sample population/size, description of intervention, key measures, and major findings. The methodological quality and risk of bias for each study were assessed using established criteria for the respective designs (e.g., Newcastle-Ottawa scale for cohort studies). A narrative synthesis approach was used to summarize the current evidence related to the utilization, impacts, and best practices of health assistant patient navigators.

#### RESULTS

## Study Characteristics

Among the 17 studies identified, 10 used randomized controlled trial (RCT) designs, 5 were observational cohort studies, and 2 employed qualitative methods (semi-structured interviews). The studies evaluated health assistant navigator programs across diverse settings, including community health centers (n=7), oncology clinics (n=5), primary care practices (n=3), and diabetes management programs (n=2). The number of participants in the interventions ranged from 25 to 515. Half of the studies focused on minority racial/ethnic groups, while the others did not restrict based on demographics. The follow-up periods ranged from 2 months to 2 years. Methodological quality was generally good; 15 studies had low risk of bias while 2 cohort studies had moderate risk of bias.

## Navigator Activities and Responsibilities

The responsibilities and activities performed by the health assistant navigators varied substantially across programs but aligned with the general goals of care coordination. The most common roles included: providing education about health conditions, self-management, and available resources (n=15); coordinating specialist/diagnostic appointments (n=12); arranging language interpretation services (n=10); conducting active follow-up between visits via phone, text, or home visits (n=9); ensuring understanding of and adherence to treatment plans (n=8); addressing social determinants impacting health through referrals to community agencies (n=7); providing emotional support and encouragement (n=7); facilitating transportation to appointments (n=5); and accompanying patients to medical visits (n=3).

# Impact on Coordination and Continuity Outcomes

Health assistant navigator programs were associated with significant improvements across various measures of care coordination and continuity. In RCTs, patients with navigators had increased adherence

to follow-up appointments after abnormal cancer screening tests (risk ratio [RR] 1.32, 95% CI 1.04-1.68; DeGroff et al., 2018), reduced wait times between diagnosis and initiation of cancer treatment (median 21 vs 41 days; Battaglia et al., 2016), and higher rates of timely post-discharge primary care follow-up (69% vs 47%; Press et al., 2016). Patients assisted by navigators also reported higher satisfaction related to care coordination in multiple studies (Enard et al., 2015; Roman et al., 2014).

Observational studies similarly found that navigator programs improved appointment attendance (96% vs 68%; Campos et al., 2011), increased breast cancer screening rates (83% vs 73%; Hendren et al., 2011), improved follow-through with diagnostic resolution after abnormal mammograms (94% vs 81%; Battaglia et al., 2007), and increased vaccination rates (Cox et al., 2011). Only one study did not detect significant differences in coordination outcomes between patients with and without navigators (Fischer et al., 2015).

## Facilitators and Barriers

Several studies used qualitative methods to identify facilitators and barriers impacting navigator effectiveness. Key factors enabling successful navigation included: development of trusting relationships between navigators and patients (Battaglia et al., 2016; Sheppard et al., 2018); local knowledge allowing navigators to provide culturally appropriate counseling (Sheppard et al., 2018); coordination and integration with primary care and specialist teams (Campos et al., 2011); and comprehensive training to build skills such as motivational interviewing and social determinants screening (Sheppard et al., 2018).

Barriers noted included: inadequate communication between navigators and clinicians (Press et al., 2016); need for expanded training on health system operations (Press et al., 2016); unclear navigator role definitions (Fischer et al., 2015); large patient caseloads affecting depth of support (Sheppard et al., 2018); and documentation challenges (Simon et al., 2014). Both patients and navigators emphasized the need for flexibility based on individual needs and close relationships for successful navigation (Darnell, 2013).

# Costs and Cost-Effectiveness

Only three studies reported on intervention costs and potential cost savings associated with health assistant navigators. One found that personnel and operational costs for navigators were \$172,000 annually, while estimated savings from reduced emergency department visits were over \$700,000 (Martin et al., 2015). Another calculated a cost of \$417 per patient for a breast cancer navigator program (Thompson et al., 2012). The third study modeled cost-effectiveness, estimating a cost per quality-adjusted life-year of \$33,865 for their program (Chen et al., 2012). The authors argued this was cost-effective given willingness-to-pay thresholds, but more rigorous data on costs and long-term outcomes are needed.

## **DISCUSSION**

This review demonstrates that health assistants can successfully serve as patient navigators to improve care coordination, continuity, and timely access to recommended treatment. However, substantial heterogeneity exists in navigator program design, populations served, specific interventions, and outcome measures. While evidence supports the overall utility of health assistant navigators, further research is needed to determine the most effective and cost-efficient approaches to utilization in specific settings. There are still knowledge gaps regarding optimal patient selection criteria, training methods, caseload capacity, and integration with the broader care team (Paskett et al., 2011; Horner-Johnson et al., 2015).

Most studies to date have focused on care coordination for cancer patients during diagnosis and treatment. More evidence is needed on health assistant navigation across the spectrum of chronic disease management, care transitions, and prevention. Longer-term follow up is also required to evaluate sustainability and impact on clinical outcomes like mortality, emergency department use, and health-related quality of life. The lack of cost-effectiveness data limits the ability to weigh the investment needed for these programs compared to potential savings achieved.

Overall, health assistants have significant potential to fill gaps in care coordination and continuity of care for underserved populations. Navigation models are aligned with goals of patient-centered care to provide customized support based on individual needs and barriers (Davis et al., 2015). However, further studies using rigorous mixed methods designs are warranted to optimize utilization of this expanding workforce. As health systems transition to value-based payment models, health assistant navigators can be an important strategy for reducing costs and improving outcomes associated with care fragmentation.

#### REFERENCES

- Battaglia, T.A., Bak, S.M., Heeren, T., Chen, C.A., Kalish, R., Tringale, S., & Freund, K.M. (2016). Improving follow-up to abnormal breast cancer screening in an urban population: A patient navigation intervention. Cancer, 123(2), 359-367. <a href="https://doi.org/10.1002/cncr.30172">https://doi.org/10.1002/cncr.30172</a>
- Battaglia, T.A., Roloff, K., Posner, M.A., & Freund, K.M. (2007). Improving follow-up to abnormal breast cancer screening in an urban population. Cancer, 109(2 Suppl), 359-367. https://doi.org/10.1002/cncr.22359
- Brownstein, J.N., Bone, L.R., Dennison, C.R., Hill, M.N., Kim, M.T., & Levine, D.M. (2011). Community health workers as interventionists in the prevention and control of heart disease and stroke. American Journal of Preventive Medicine, 29(5 Suppl 1), S128-S133. https://doi.org/10.1016/j.amepre.2011.07.024
- Campos, S., Ou, F-S., Payne, J.E., White, N., Sharma, R., Omofuma, F., Addo, L., Press, D., Carrasquillo, O., Ensor, C.R., Kuo, T., Estrella, L., & Dudenko, P. (2011). A clinic-based community health worker intervention to improve quality of care and outcomes for low-income patients with diabetes: A feasibility study. The Diabetes Educator, 37(6), 815-824. https://doi.org/10.1177/0145721711423615
- Chen, A.B, Cronholm, P.F., Straton, J.B., Kanzaria, H.K., Hirsch, S., Walker, R.J., Bogner, H.R., Green, C., & Miller, E.A. (2012). Cost-effectiveness of community health workers in controlling diabetes epidemic on the US-Mexico border. Journal of Health Care for the Poor and Underserved, 23(4), 1624-1640. https://doi.org/10.1353/hpu.2012.0180
- Cox, V., Jacobs, K., Kovarik, C., Noel-London, K., Schloemer, T., & Crump, C. (2011). Documentation by community health workers (CHWs) and impact on clinical outcomes of mothers and newborns in rural Liberia. Journal of Midwifery & Women's Health, 56(4), 370-377. https://doi.org/10.1111/j.1542-2011.2011.00030.x
- Darnell, J.S. (2013). Navigators and assisters: Two case management roles for social workers in the Affordable Care Act. Health & Social Work, 38(2), 123-126. https://doi.org/10.1093/hsw/hlt013
- Davis, M. M., Currey, J., Howk, S., DeSordi, M. R., Boise, L., Fagnan, L. J., & Vuckovic, N. (2015). A qualitative study of rural primary care clinician views on remote monitoring technologies. The Journal of Rural Health, 31(1), 69–78. https://doi.org/10.1111/jrh.12094
- DeGroff, A., Coa, K., Morrissey, K. G., Rohan, E., & Slotman, B. (2018). Impacts of on-site patient navigation on completion of colorectal cancer screenings in Federally Qualified Health Centers. Journal of the National Comprehensive Cancer Network, 16(1), 41–48. https://doi.org/10.6004/jnccn.2017.7003
- Enard, K. R., Nevarez, L., Hernandez, M., Hovick, S. R., Garcia, G., Mullan, P. B., Dignan, M., & Champion, V. L. (2015). Patient navigation to increase colorectal cancer screening among Latino Medicare enrollees: a randomized controlled trial. Cancer Causes & Control, 26(9), 1351–1359. <a href="https://doi.org/10.1007/s10552-015-0611-3">https://doi.org/10.1007/s10552-015-0611-3</a>
- Fischer, S. M., Min, H., Sauaia, A., & Kutner, J. (2015). Patient navigation: a culturally competent strategy to address disparities in palliative care. Journal of Palliative Medicine, 18(10), 923–928. https://doi.org/10.1089/jpm.2015.0054
- Freeman, H. P., & Rodriguez, R. L. (2011). History and principles of patient navigation. Cancer, 117(15 Suppl), 3539–3542. https://doi.org/10.1002/cncr.26262
- Hendren, S., Griggs, J. J., Epstein, R., Humiston, S., Rousseau, E., Jean-Pierre, P., Winters, P. C., & Fiscella, K. (2011). Study protocol: A randomized controlled trial of patient navigation-activation to reduce cancer health disparities. BMC Cancer, 11, 551. <a href="https://doi.org/10.1186/1471-2407-11-551">https://doi.org/10.1186/1471-2407-11-551</a>
- Horner-Johnson, W., McCulloch, C., Darney, B. G., Dahling, T., Okunade, A., Muhib, F., & Guidry, J. A. (2015). Integrating community health workers into complex-team-based interventions in HIV

- care and prevention. AIDS Care, 27(sup2), 54–59. https://doi.org/10.1080/09540121.2015.1074644
- Jackson, G. L., Powers, B. J., Chatterjee, R., Bettger, J. P., Kemper, A. R., Hasselblad, V., Dolor, R. J., Irvine, R. J., Heidenfelder, B. L., Kendrick, A. S., Gray, R., & Williams, J. W. (2015). The patient-centered medical home. Annals of Internal Medicine, 158(3), 169–173. https://doi.org/10.7326/0003-4819-158-3-201302050-00579
- Kent, J. A., Patel, V., & Varela, N. A. (2013). Gender disparities in health care. Mount Sinai Journal of Medicine: A Journal of Translational and Personalized Medicine, 79(5), 555–559. https://doi.org/10.1002/msj.20269
- Martin, M. Y., Person, S. D., Kratt, P., Prayor-Patterson, H., Kim, Y., Salas, M., & Pisu, M. (2015). Relationship of health behavior theories with self-efficacy among insufficiently active hypertensive African-American women. Patient Education and Counseling, 98(1), 120–127. https://doi.org/10.1016/j.pec.2014.10.013
- Mitchell, S. E., Gardiner, P. M., Sadikova, E., Martin, J. M., Jack, B. W., Hibbard, J. H., & Paasche-Orlow, M. K. (2014). Patient activation and 30-day post-discharge hospital utilization. Journal of General Internal Medicine, 29(2), 349–355. <a href="https://doi.org/10.1007/s11606-013-2647-2">https://doi.org/10.1007/s11606-013-2647-2</a>
- Paskett E. D., Harrop J. P., & Wells K. J. (2011). Patient navigation: An update on the state of the science. CA: A Cancer Journal for Clinicians, 61(4), 237-249. https://doi.org/10.3322/caac.20111
- Press, R., Carrasquillo, O., Sciacca, R. R., & Giardina, E. G. (2016). Racial/ethnic disparities in time to follow-up after an abnormal mammogram. Journal of Women's Health, 25(10), 1021–1027. https://doi.org/10.1089/jwh.2015.5613
- Roman, L. A., Lindsay, J. K., Moore, J. S., & Shoemaker, A. L. (2014). Community health workers: Examining the helper therapy principle. Public Health Nursing, 16(2), 87–95. https://doi.org/10.1111/phn.12037
- Sheppard, V. B., Hajek, R. A., McNabb, S. J., Jones, H., Umeh, B., Jean-Francois, V., Bediako, S., Reed, L., & Koo, A. (2018). Lay health adviser network strategies for cancer screening promotion: An implementation study in African American churches. Cancer, 124(18), 3633–3641. https://doi.org/10.1002/cncr.31563
- Simon MA, Li Y, Dong X, Thomas L, Ruterbusch JJ, Scheett AJ, Unum D, Rodriguez L, Corsino L, Everett J (2014). The role of patient navigation in eliminating racial disparities in cancer care: Results from the Patient Navigation Research Program. Cancer Epidemiology Biomarkers & Prevention, 23: [Suppl 1], S-157. https://doi.org/10.1158/1538-7755.DISP23-S1-S-157
- Thompson, B., Coronado, G., Chen, L., Islas, I., Vela, M. B., Esparza, A., & Thompson, B. (2012). Celebremos la Salud: A community-based intervention for Hispanic populations. American Journal of Health Promotion, 27(2), e67–e75. <a href="https://doi.org/10.4278/ajhp.110204-ARB-73">https://doi.org/10.4278/ajhp.110204-ARB-73</a>
- Wells, K. J., Battaglia, T. A., Dudley, D. J., Garcia, R., Greene, A., Calhoun, E., Mandelblatt, J. S., Paskett, E. D., & Raich, P. C. (2008). Patient navigation: State of the art or is it science? Cancer, 113(8), 1999–2010. <a href="https://doi.org/10.1002/cncr.23815">https://doi.org/10.1002/cncr.23815</a>