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The Use of Patient Navigators to Improve Cancer Care for Hispanic Patients

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Abstract:

Background: Although the United States is one of the countries at the leading edge of medical breakthroughs and treatments, there are great disparities in the access to care among different socioeconomic strata. One of the most striking discrepancies regarding access to care is found among the ranks of the Hispanic population, which is the fastest growing minority in the United States, but for which cancer is the third leading cause of death. It is clear that better and timely treatment for cancer patients belonging to this minority is needed. Patient navigators can be an important tool to improve access to care of patients belonging to this minority group.

Methods: Through a systemic search, we identified seven articles that employed patient navigators for Hispanic cancer patients. The identified studies addressed very limited pathology, three studying breast and four colon cancer patients.

Conclusions: The presence of patient navigation can be an effective to remove impediments that limit the access to care in minority populations and can improve outcomes in Hispanic patients suffering from cancer. Further research to evaluate the cost of patient navigation in relationship to the added benefit early diagnosis, continued follow up and treatment is needed.

Keywords: patient navigators, cancer, Hispanic, minority health, disparities in healthcare

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Introduction

Cancer is one of leading causes of death in the United States. Despite advances in medical knowledge and technologies, diagnosing cancer in a timely manner and continued follow up and treatment in cancer patients is still a challenge. In addition, disparities exist when treating Hispanic and non-Hispanic patients.¹⁻⁴ In the Hispanic population, many barriers limiting access to care were identified. These consist of education, cultural background and financial means.⁵ It was also noted that cancer is a leading cause of death in the Hispanic population, with Hispanic men and women having the lowest survival rates for most cancers.⁵ In addition, cancer in this patient population is generally found at later stages⁵ when there is more difficult to treat and the likelihood for cure is significantly decreased.

Brain and nervous system cancers are a leading cause of cancer related deaths among Hispanics. However, there is a lack of specific interventions targeting this “at risk population”.⁵ It has been shown that Hispanic children suffering from brain cancers have reduced access to high-quality, high-volume neurological oncology surgical centers⁶—they are 32% less likely to be seen when compared to their white counterparts (odds ratio 0.68). In addition, research found that mortality rates and adverse discharge disposition rates were lower when procedures were performed at high-volume hospitals and by high-volume-neurosurgeons.⁷ Thus, improving the access to specialized medical care for the Hispanic population may influence positively the patient outcomes.

The access to medical care is often impeded by various barriers, which can be different across different ethnic groups. Barriers can be financial, or non financial, such as logistical barriers for access to care, negative healthcare experiences at previous encounters, or language barriers resulting in poor patient-provider communication.^{4,8-14} Nonetheless, these barriers deter the timely care for cancer patients, with significant negative impact on patient survival.

Patient navigator programs have recently been used in different community and Academic Cancer Centers to improve the access to care for Hispanic and other minority patients. Patient navigators are trained health care professionals who provide patients with information and research on the illness the

patient is afflicted with. They also advocate on patient’s behalf, and help patients benefit from an integrative care approach to their illness. Unfortunately, no systematic reviews have been done to determine if this is an effective intervention, and if the presence of patient navigators, which imposes additional costs on an already strained system, can effectively improve the screening and early diagnosis and treatment of Hispanic and other minority patients.

Materials and Methods

A comprehensive literature review on patient navigation programs was conducted. The key words used in the Medline database were cancer and/or oncology and patient navigator. Fifty three publications describing patient navigator programs were identified. These trials look at the use of patient navigation in treating patients with various cancers and how patient navigation can improve follow-up, treatment and outcome in patients with cancers. Seven articles included specific data on Hispanic patient’s access to cancer care.^{1,2,15-19}

Results

From the seven studies identified, which included measures focused on improving Hispanic patient’s access to cancer care, four concentrated on colorectal cancer (colonoscopy) screening,^{1,16,18,19} while three on the access to oncological care for women with abnormal mammograms.^{2,15,17} All six studies were published since 2005, underlying the relative newest of research in this topic.

The importance of patient navigator (PN) in increasing colorectal cancer (CRC) screening

Four studies recruited patients eligible for colorectal cancer screening (Table 1). Only one study focused on conceptually determining the barriers to screening colonoscopy in low-income Latino patients,¹⁸ while the other three studied the use of a patient navigator to increase the screening (two randomized studies,^{16,19} and one open-access referral system¹ Table 1).

In low-income patients (both Latino and White), a wide range of barriers to screening colonoscopy were identified, such as system barriers (scheduling, financial, transportation and language difficulties), fear (of pain, complications, cancer diagnosis), lack

**Table 1.** Outcome of published patient navigator efficacy studies to improve colon cancer screening for hispanic patient.

Citation	Design	Participants	Location	Hispanic patients	Outcome measures	Results
Jandorf ¹⁹	Prospective, randomized	78 patients	Primary care practice, East Harlem, New York	82%	Increasing adherence to colon cancer screening	Increase in the number of patients receiving timely endoscopic evaluations
Green ¹⁸	Qualitative, descriptive	40 patients	Adult Medicine Department, Community-based (MGH Chelsea)	55%	Identify potential barriers to screening colonoscopy	Increased understanding of barriers to screening colonoscopy in low-income Hispanics
Christie ¹⁶	Prospective, randomized	21 patients	Local Community Health Center Settlement Health, New York	71%	Completing Screening Colonoscopy	Improved compliance with screening colonoscopy
Chen ¹	Prospective, cohort	532 patients	Teaching Hospital, New York	55%	Completing Screening Colonoscopy	Improved compliance with screening colonoscopy

of desire/motivation, dissuasion by others, and lack of provider recommendation.¹⁸ There was no clear barrier difference found between the Latino and white non-Latino patients, except for the language barriers and the fact that Latino men seemed to talk less about these issues overall than other groups. It is, however, worth noticing that in this study, the Latino patients were less likely to be insured—31.8% of Latino patients had no insurance and only 16.6% of white patients had no insurance; while 36.4% of Latino patients received colonoscopy compared to 44.4% of white patients.

Two of the three studies of patient navigator use in improving the rate of screening colonoscopy employed a prospective randomized design. The first study intended to determine if the Patient Navigator can increase the rate of CRC screening in the low-income, primary care practice in East Harlem, New York City. The subjects included in this study included men and women aged 50 or older who had not had a fecal occult blood test (FOBT) within the previous year, had not had a flexible sigmoidoscopy (FS) or barium enema within the past 3–5 years, and had not had a colonoscopy within the past 10 years. The 78 asymptomatic participants were randomized in two groups: 38 patients received Patient Navigator services and 40 did not. The two groups did not differ in any characteristics. Majority of the patients (82.1%) of the patients were Hispanic, and 74.4% were females. The Patient Navigator called the patients randomized to navigation 2–3 weeks after the initial

enrollment and addressed any barriers to completion of FOBT cards, and the scheduling on FS. If the FS was not scheduled, the Patient Navigator assisted with the scheduling of FS, and reminded the patients of their appointments. At the three-month review, the patients randomized in the Patient Navigator intervention group had higher FOBT completion rates (42.1% vs. 25%, $P = 0.086$), and more patients have made their endoscopy appointment (18.4% vs. none, $P = 0.005$). At the final review (six months point) 23.7% of the patients receiving the Patient Navigator services completed an endoscopic examination, compared with only 5% of the control group.

A second study from the Mount Sinai School of Medicine analyzed the effect of Patient Navigator intervention in increasing specifically the rate of screening colonoscopy beyond the physician recommendation alone.¹⁶ The eligible patients included men and women older than 50, asymptomatic for gastrointestinal symptoms, and who had received a referral for screening colonoscopy. This study enrolled a small number of patients ($n = 21$), out of which 13 were randomized to the Patient Navigator intervention, while 8 were randomized to the control group. The Patient Navigator provided the patient with follow-up for scheduling, education, and organized and coordinated the transportation services, as well as rescheduled the colonoscopy appointment if the patient could not keep the initial date. Majority of the patients in this study were Hispanic (71%), did not have high-school education (71%), made less than 20,000 a year



(81%) and were uninsured (52%). The results showed that more of the navigated patients complete their screening colonoscopy (53.28% vs. 13%, $P = 0.085$) than the control patients. Also, less patients refused screening colonoscopy and more patients were rescheduled if the initial appointment was missed in the Patient Navigator group.

Finally, a one-arm cohort study is also available about the use of Patient Navigator in order to increase the rate of colonoscopy completion for urban minorities.¹ The patients were directly referred from primary care clinics to a teaching hospital in New York. The patients were mostly African Americans and Hispanics. A number of 532 patients were offered navigation, out of which 66% completed the screening colonoscopy. The Hispanic patients were 1.67 more times likely to complete colonoscopy than African Americans ($P = 0.013$). Hispanic women were 1.5 times more likely to complete colonoscopy than Hispanic men ($P = 0.009$). Important to notice, 16% of the patients were diagnosed with significant clinical pathology (such as adenomas).

The importance of patient navigator (PN) in improving follow-up in Hispanic women with abnormal breast cancer screening

Three studies focused on the use of Patient Navigator to improve access to care for patients with abnormal mammograms also included Hispanic patients (Table 2). The first trial was conducted at a

hospital-based diagnosis breast health practice at a major academic medical center, and was designed as a pre-post intervention study.¹⁵ All the patients with scheduled visits were included, and the end-point was defined as timely follow-up (less than 120 days from the date of the original appointment to the date of the diagnostic evaluation). The Patient Navigator intervention was offered to all patients, and focused on patient identification, identification of the barriers to care, implementation of a care plan and tracking to completion. During the Patient Navigator intervention, 78% of the patients had timely follow-up versus 64% preintervention ($P < 0.0001$). A small percentage of the patients were defined as Hispanic (14%), and no significant differences were detected between the different racial groups.

The largest study to date focused on the access to care of Hispanic women with abnormal mammograms was conducted in Los Angeles -University of Southern California between 2001–2002 and included 204 women (85% of which were Latino, and 90% foreign born).² The patients were randomized to Patient Navigator intervention or usual care. The Patient Navigator intervention was extensive, and contained structured phone-based adherence risk assessments, health education and psychological counseling, system navigation assistance, patient tracking and reminders, and referral to community resources. The intervention group was much more likely to achieve diagnosis resolution than the control group (90% vs. 66%, $P < 0.001$), and more

Table 2. Outcome of published patient navigator studies for Hispanic women with abnormal breast cancer screening.

Citation	Design	Participants	Location	Hispanic patients	Outcome measures	Results
Battaglia, 2006	Prospective, cohort	314 patients	Major Academic Center, Boston	14%	Follow-up after abnormal breast findings	Increase in the number of patients receiving timely follow-up
Ell, 2006	Prospective, randomized	204 patients	Public Medical Center, Los Angeles	84%	Follow-up after abnormal mammogram	Increase in the rate of adherence to follow-up through diagnostic resolution
Ferrante, 2007	Prospective, randomized	105 patients	Urban University Hospital, Newark	30%	Time to diagnosis after abnormal mammogram, decreasing anxiety and increasing satisfaction	Shorter time to diagnosis resolution, decreased anxiety, improved patient satisfaction



timely adherence (77% vs. 57%, $P = 0.001$) than the control group.

The third study tested the effectiveness of a patient navigator in improving the timelines to diagnosis, decreasing anxiety, and increasing support in urban minority women. The patients were randomized to receive either standard care ($n = 50$), or standard care plus Patient Navigator intervention ($n = 55$). The Patient Navigator provided the patients with emotional and social support, helped patients make appointments, facilitated applications for financial assistance, and facilitated interactions and communication with the health care team. The woman in the intervention group had shorter time to diagnosis (25 vs. 42.7 days, $P = 0.001$), lower anxiety scores ($P < 0.001$) and higher mean satisfaction scores. No racial differences were seen in this study, but majority of the patients were black (59%), the number of Hispanic patients was relatively low (27.6%), and the study did not include non-English speaking patients.

Discussion

Patient navigation is a simple way to help patients increase their access to care, and thus hopefully reduce the disparities which exist among medically underserved communities across the United States. It was first introduced in the 1990s by Dr. Harold Freeman, breast cancer surgeon at Harlem Hospital in New York. He noticed that African American women with breast cancer were frequently diagnosed at later stages than Caucasian women. After reviewing the barriers these women faced during the process of receiving medical care, he helped his patients obtain a navigator to overcome the obstacles.^{12,13} Dr. Freeman's program revealed that, in various types of cancer, outcomes can be improved using patient navigation to help the patient obtain the needed medical care.^{12,13} Following this program, the notion that Patient Navigators can assist the medically underserved in acquiring proper follow-up and treatment gained remarkable support throughout the United States.

Patient Navigation was successfully used in several instances to help Hispanic cancer patients to obtain medical treatment.^{4,8-14} For many years, Hispanic patients suffering from cancer faced numerous difficulties when trying to receive medical care. The barriers identified in each trial were similar to one

another. For example, each project identified cultural, educational and language impediments to screening and treatment. These issues were addressed through outreach and education conducted by community health workers.^{4,8-14} In the Hispanic population, Navigator programs were instituted throughout the cancer care continuum (ie, prevention, screening, and treatment) and proved to be significantly helpful.^{1-4,8-10,12} One interesting aspect of the studies was that some programs employed lay community members trained as patient navigators, while other programs employed nurses or social services staff.^{1,2,4,9,10,12,13,16} The outcome data, however, revealed that regardless of the level of education of the patient navigator, the rates of screening, treatment and follow up increased when patient navigators were employed.^{1,2,4,9,10,12,13,16}

One of the major obstacles to obtain medical treatment identified during the patient interviews was the communication between the patient and the health care provider and their staff.^{4,8-14} The studies also identified that when the communication between the healthcare provided and the patient was not available, problems of cultural barriers arose: for example patients felt confused, did not understand the treatment and they felt disrespected or mistreated.⁵ The use of bilingual Patient Navigators solved that problem, since the patient received consistent and timely telephone contact.^{1,2,4,9,10,12,13,16} The Patient Navigator also provided support, assistance with scheduling, reminders and also provided patients with any other support needed as they moved through the rigorous treatment involved with brain tumors.

Overall these studies also showed that patient navigation was directly associated with higher patient satisfaction. Both physicians and patients believed that navigation was beneficial for patient care.^{1-4,10,12,13,16,20} Most likely, simply by improving communication between the providers and the patients, and thus removing the barriers that previously limited access to healthcare of these patients, the patients were better able to comply with screening rates, follow-up and to complete the treatment.

Since its inception in the 1990s, patient navigation was found to be a useful tool in removing barriers limiting the access to healthcare of minority patients. It was also proved to be associated with higher screening rates, improved follow-up, lower clinical stage of



presentation, and higher patient satisfaction overall. However, despite these proven benefits, patient navigation is still in its early stages of development. Interest and need for such programs has expanded and continued to gain support, making the development of more trials and programs likely. Very recently, the Patient Navigation Research Program (PNRP) sponsored by the National Cancer Institute's (NCI) Center to Reduce Cancer Health Disparities (CRHCD) started to examine the role and benefits of patient navigation.²¹ The NCI PNRP is unique in examining the outcomes of care in patient navigation for persons across four different types of cancer, and across multiple diverse clinical care sites and populations. The goal of the NCI PNRP is to determine if patient navigation can facilitate timely and quality care from the time of the initial cancer screening abnormality detected through the completion of the initial cancer therapy. It is believed that patient navigation will help guide the patients through the complex system, and at the same time, will ensure that patients will not be lost to follow up and treatment will be completed on schedule.

Health disparities among different minority populations existed for years, and for years efforts were made to find solutions to solve those problems associated with delivery of healthcare to the underserved. Judging from the data set forth in the recent years, it can be inferred that patient navigation can be an effective way of removing the barriers to healthcare that currently still stand between many Hispanics and quality medical care. By fostering teamwork among the patient, the provider, and the ancillary staff the patient navigation system leads to improved outcomes. A cost benefit analysis of this system is warranted, to ensure that the cost associated with patient navigation can be outweighed by earlier identification of cancer and thus less costly treatment for the patient and the healthcare system overall.

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Disclosures

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