

Targeting Social and Economic Correlates of Cancer Treatment Appointment Keeping among Immigrant Chinese Patients

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ABSTRACT *Chinese immigrants have high rates of a variety of cancers and face numerous social and economic barriers to cancer treatment appointment keeping. This study is a nested cohort of 82 Chinese patients participating in the Immigrant Cancer Portal Project. Twenty-two percent reported having missed appointments for oncology follow-up, radiation therapy, and/or chemotherapy. Patients most commonly reported needing assistance with financial support to enable appointment keeping. Efforts to further address social and economic correlates in cancer care should be developed for this population.*

INTRODUCTION

Some 12.6% of the total US population is immigrant. China, after Mexico, is the second largest sending country.¹ Asian Americans are the only major population group in the United States for whom the annual number of cancer deaths is greater than that for heart disease.²

Much effort has focused on increasing access to screening for minority and underserved populations, including the Chinese population.^{3,4} Several authors show that, after adjusting for diagnostic stage, substantial disparities in cancer survival remain among minority populations in general, indicating that other, post-diagnostic factors contribute to the mortality differentials.^{3,5-7} Low rates of cancer treatment appointment keeping, lower rates of receipt of adjuvant therapy, and early treatment termination have been described.^{3,8-18} However, these studies largely focus on black and Hispanic minority populations, with few authors examining disparities in treatment and survival among Asians. There are no studies assessing cancer treatment appointment keeping among Chinese immigrants.

Minorities are confronted with considerable social and economic barriers to cancer treatment appointment keeping, including poor housing, employment limitations, limited access to health insurance, cost of treatment, lack of child care and transportation, and inadequate nutrition.³ The Chinese population is subject to all of these barriers, plus language barriers, additional cultural factors, and other economic, personal, and family health priorities.¹⁹ Socioeconomic factors can significantly impact access to cancer treatment and appointment keeping and have been shown to affect treatment to significantly impact survival in minorities.^{8,20,21}

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Few studies have focused on assessing and addressing socioeconomic correlates of cancer treatment appointment keeping.

This study was conducted to specifically determine social and economic correlates of cancer treatment appointment keeping among Chinese immigrants.

METHODS

The Immigrant Cancer Portal Project is a program funded by the New York Community Trust to provide assistance to largely low-income, immigrant, and minority patients in 11 New York City hospital cancer clinics where treatment appointment keeping had been noted to be problematic. Most patients at these sites prefer to communicate in languages other than English, most often in Chinese and Spanish. This study is a nested cohort of all Chinese patients participating in the Portal Project between 2008 and 2009, their areas of needed assistance, and appointment keeping for cancer treatment.

Central to the Portal intervention is the trained, bilingual access facilitator who assesses needs and coordinates an individualized set of transdisciplinary services for each patient. Access facilitators operate in a breadth of areas, ranging from assessing and prioritizing needs; providing assistance with intake procedures to patients with low literacy and limited English proficiency; providing financial support, i.e., assisting with obtaining reimbursements and funding that may go towards doctor's visits, radiation therapy, chemotherapy, radiological scans, pain medications, medical supplies, and home care; addressing food insecurity; assisting with transportation; assisting with rent support and housing conditions; assisting with accessing programs that provide free medications; assisting with insurance and obtaining mandated hospital fee reductions; accessing free or low-cost legal resources for immigration, eviction, wills, and work discrimination concerns; assisting with referrals to social services, counseling, and cancer support groups; assisting with accessing child care for appointments; accessing and working with interpreters; and helping patients improve patient-provider communication.

Eligible patients in the nested cohort included all English, Mandarin, Cantonese, and Fukianese-speaking immigrant adults with Chinese ancestry with a diagnosis of cancer who were undergoing treatment. Facilitators approached all patients in the waiting area prior to their medical visits. As part of the patients' care, access facilitators conducted a needs assessment survey in the patient's preferred language. The needs assessment included sociodemographic indicators; need for socioeconomic assistance (financial support, food, transportation, rent, medications, insurance issues, legal issues, social and psychosocial services, and child care); reports of missed oncology, radiation therapy, and/or chemotherapy appointments and the reason(s) why. Once patient needs were identified, facilitators provided immediate and ongoing assistance in those areas.

We performed descriptive statistics to examine sociodemographic characteristics, areas of needed assistance, and missed appointments.

RESULTS

Six hundred eighty-nine patients with cancers of all sites were enrolled in the study between July 2008 and July 2009. One hundred ten Chinese immigrant patients were approached; 25% refused help, and 82 agreed to participate. All had immigrated from China, Hong Kong, or Taiwan; 52% had resided in the United States for 10 years or less. Forty percent had not completed high school, and nearly all preferred to speak

Chinese in the health care setting. Twenty-seven (33%) had no health insurance, and 49 (60%) were insured (three responded “Don’t know” and three responses were missing). Of the 49 patients who did have insurance, 27 (55%) had Medicaid and 13 (27%) had Emergency Medicaid. Only 23% reported working with a social worker (Table 1).

TABLE 1 Sociodemographic characteristics (n=82)

	<i>n</i> (%)
Age, years	
18–29	6 (7)
30–49	19 (23)
50–69	44 (55)
70–79	10 (12)
>80	2 (2)
Gender	
Male	31 (38)
Female	51 (62)
Education	
≤5th	16 (20)
Grade 6 to some HS	16 (20)
HS graduate	23 (28)
Some college to post-college	19 (23)
Missing	8 (10)
Country of origin	
China	79 (96)
Hong Kong	2 (2)
Taiwan	1 (1)
Years in USA	
<1 year	6 (7)
1–3 years	15 (18)
4–5 years	6 (7)
6–10 years	16 (20)
11–20 years	31 (38)
>20 years	8 (10)
Language preferred	
English	1 (1)
Cantonese	10 (12)
Mandarin	61 (74)
Other Chinese dialects	10 (12)
Do you have insurance?	
Yes	49 (60)
No	27 (33)
Don't know	3 (4)
Missing	3 (4)
If yes, what type of insurance?	
Medicaid	27 (55)
Medicare	8 (16)
Private insurance	1 (2)
Emergency Medicaid	13 (27)
Are you working with a social worker?	
Yes	19 (23)
No	61 (74)
Don't know	1 (1)
Missing	1 (1)

Among all those enrolled, patients most commonly reported needing assistance in the following areas to help them attend appointments: financial support (87%), food support (18%), and transportation (18%). Nine percent reported needing assistance with health insurance issues. Twenty-two percent reported that they had missed appointments for oncology follow-up, radiation therapy, and/or chemotherapy. Among the 18 patients who had missed appointments, 94% reported they needed financial support. Among the 62 patients who had not missed appointments, 79% needed financial support. Two responses were missing for this question on missed appointments (Table 2). Additionally, stated reasons for missing appointments included misunderstanding of when the appointment was scheduled, conflicts with other appointments, and patients being too weak to attend appointments. There were no sociodemographic differences between those who had reported versus those who had not reported missing appointments.

DISCUSSION

In this nested cohort of 82 Chinese immigrant cancer patients, we found a high number of patients who reported missed appointments for follow-up care and treatment. Some of the reported reasons for missing appointments, such as misunderstanding of when the appointment was scheduled and conflicts with

TABLE 2 Cancer diagnoses, missed appointments, areas of portal assistance (n=82)

Diagnosis	n (%)
Breast	22 (27)
Gynecological	6 (7)
Gastrointestinal	26 (32)
Head and neck	6 (7)
Lung	10 (12)
Other	9 (11)
Don't know	2 (2)
Missing	1 (1)
Have you missed any appointments?	
Yes	18 (22)
No	62 (76)
Missing	2 (2)
Areas of assistance	
Financial support	71 (87)
Food support	15 (18)
Transportation	15 (18)
Rent support	13 (16)
Accessing programs for free medications	10 (12)
Health insurance issues	7 (9)
Legal services/immigration-related issues	7 (9)
Social work services	3 (4)
Psychosocial support	3 (4)
Housing conditions	3 (4)
Child care	2 (2)
Other	12 (15)
Refused	1 (1)

other appointments, could be addressed by ensuring available and accurate interpreting/translation services at the time of appointment scheduling or through the presence of bilingual staff and/or patient navigators. Patients most commonly reported needing financial support. Only 23% of patients had been working with a social worker at the time of study enrollment, indicating that patients were either not aware of, or not willing or able to (due to language barriers or resource scarcity), access available resources. Strategies such as provider reminders, patient education, and automated referrals to linguistically responsive social services could potentially address this. This study likely underestimated the missed appointment rate, as we performed a cross-sectional survey of patients who were present at the clinic for follow-up. Patients who missed more appointments were less likely to have been enrolled in the study. Additionally, as the study was based on self-report of missed appointments, accuracy may have been affected by poor patient recall. A larger, prospective study is needed that tracks patients from intake through treatment and assesses their reported concerns and objective measures of appointment keeping.

Targeting social and economic correlates of cancer treatment appointment keeping in minority and underserved populations is an area that has received little attention, yet may be essential in improving the disparities in cancer outcomes seen in minority and underserved populations. Chinese immigrants are a particularly vulnerable and understudied group, with high rates of a variety of cancers and multiple barriers to care. Efforts to further address social and economic correlates in cancer care should be developed and implemented for this population. The socioeconomic barriers to cancer treatment described in this study have been reported in other minority populations.^{20,22} Our Immigrant Cancer Portal Project begins to address these significant concerns and may potentially serve as a model for replication in other vulnerable communities.

ACKNOWLEDGMENTS

The work described was supported by the New York Community Trust. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the awarding Agencies.

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