

# It's all good on the surface: care coordination experiences of migrant cancer patients in Australia

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## Abstract

**Purpose** Migrants diagnosed with cancer in Australia have high unmet need and poorer psychosocial outcomes than comparable Australian-born patients. It is possible that migrants also experience worse coordination of their cancer care. The purpose of this study was to describe migrant patients' experience of care coordination to inform the development of items for inclusion in a cancer care coordination questionnaire sensitive to the specific cultural needs of these patients.

**Methods** Eighteen Chinese (Mandarin and Cantonese), Arabic and Macedonian patients and carers from two metropolitan cancer centres in Sydney, Australia, were recruited. Two focus groups and 11 telephone interviews were conducted in the participants' own language. A semi-structured interview format was utilised to qualitatively explore participants' experiences of cancer care coordination during treatment. Themes were identified using a thematic analysis.

**Results** Cancer care was generally perceived to be well coordinated. Four themes were identified that impacted on the

quality of care coordination as a direct result of a patient's migrant status: (1) the impact of language on understanding and information access, (2) the role of interpreters and (3) access to services and (4) understanding the roles and responsibilities of the team.

**Conclusions** Despite their care generally being well coordinated, migrants require additional assistance such as information in a form appropriate to their language proficiency and understanding of the new health system. Development of a culturally specific measure of cancer care coordination will enable evaluation of future strategies to improve care.

**Keywords** Migrants · Cancer · Care coordination · Interviews · Focus groups

## Introduction

Effective coordination of care is essential for provision of high-quality health care. The absence of clearly defined care pathways and poor communication both between health care professionals and between health professionals and patients not only influences patient satisfaction, but can also result in sub-optimal management and higher health care costs [1]. Patients with cancer are at particular risk of receiving poorly organised care due to the complexity of treatment pathways [2, 3] delivered by multidisciplinary teams from a diverse range of services in both hospital and community settings. In Australia, cancer agencies have recognised the need for better coordination and integration of cancer services across the entire patient journey [4, 5].

Patients from migrant communities where *English is not the dominant language* are particularly at risk of receiving poorly organised care. With more than 26 % of the Australian population born overseas and 2 % of the population

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speaking English poorly or not at all [6], it is challenging for cancer care service providers to ensure equitable delivery of cancer care, and they do not always succeed. This is reflected in the findings that migrant patients in Australia *from non-English-speaking countries* have higher unmet supportive care needs, higher psychosocial issues, lower quality of life and greater communication problems than non-migrant patients [7]. Although migrant-specific outcome data for Australia is sparse, studies from Western countries with comparable levels of migration to Australia report minority groups have lower screening and survival rates [8, 9] and more treatment-related side effects [10].

Lack of familiarity with the Australian health system, language difficulties and cultural differences likely contribute to fragmented, poorly coordinated care and observed poorer psycho-social outcomes. For instance, in a recent study, 38 % of migrant patients with cancer reported that they lacked understanding of the health system (versus 10 % of English-speaking patients) and 36 % were not confident in speaking English, leading to doctor-patient communication difficulties for 24 % of patients [11]. Similar findings were reported in a population-based study of cancer survivors. Difficulty navigating the health system has been reported as a significant source of distress for migrant patients and their families [12]. Failure to provide culturally competent services that address these needs has the potential for major health care disparities between migrant and mainstream populations

To comprehensively document migrants' experience of care coordination and determine the efficacy of interventions to improve it, a valid measure of care coordination is required which has cross-cultural sensitivity and validity. Our group developed a measure of patients' experience of cancer care coordination, the cancer care coordination questionnaire (CCCQ) [13], but non-English speaking patients were excluded during its initial development. The CCCQ includes two domains, communication and navigation, but it is not clear whether these are relevant to and include all issues faced by migrants. The aim of this study was therefore to explore migrant cancer patients' experience of cancer care coordination during treatment. The results will inform the development of migrant-specific items for inclusion in an adapted, culturally sensitive cancer care coordination questionnaire.

In this study, we focused on Chinese- (Mandarin and Cantonese), Arabic- and Macedonian-speaking patients. Chinese and Arabic patient groups were chosen, as they represent three of the largest language groups in Australia [6]. Macedonian patients were included, as they are a growing community, with whom little research has been conducted.

## Methods

Eligibility criteria included being diagnosed with a histologically confirmed cancer within the last 5 years; treated at one of two metropolitan hospitals in Sydney; aged over 18 years; speaking Chinese (Mandarin and Cantonese), Arabic or Macedonian; or being a carer of such a person. Eligible patients and their caregivers were identified from hospital records based on self-identified language spoken at home. A total of 110 participants (50 Arabic-, 26 Chinese- and 34 Macedonian-speaking patients) were identified from the records. A letter of invitation together with information about the study in the patient's own language and in English was mailed to all eligible patients. Patients were also invited to have their caregiver accompany them to the focus groups. Bi-lingual researchers telephoned potential participants who indicated an interest in the study after the mail-out to provide further study information. Written consent was obtained from all participants to participate in either a focus group or a semi-structured telephone interview conducted in the patient's own language. Participants were given the option of either a focus group or an interview. Given the small number of focus group participants, no social matching was possible. As participants were recruited via a mailed invitation, we were unable to collect information on non-responders' reasons for declining participation.

Researchers fluent in Cantonese, Mandarin, Arabic or Macedonian conducted the focus groups and semi-structured interviews. Focus groups were conducted at a community library close to the hospitals, as this location was convenient for participants. Participants received no remuneration for participation, but travel and associated costs of participation were covered. The bi-lingual researchers were experienced in health research, group facilitation and/or local community support group facilitation. They received training for the study and were supported by more experienced qualitative researchers who attended the focus groups and reviewed the interviews. These more experienced researchers observed and noted the focus group dynamics but, as they were English-speaking, were only able to comment on non-verbal communication. Further analysis of the focus group was provided by the bi-lingual researchers at the conclusion of each group. Participants were asked to reflect on their cancer experience across the cancer care continuum (from diagnosis to follow-up care), to give their views on how well coordinated they perceived their cancer care to have been and to comment on factors that hindered or facilitated care coordination. The themes captured by the established items of the CCCQ were incorporated into the semi-structured questions for the focus

group and interview guides. Participant discussions were digitally recorded, transcribed and translated verbatim. Two female experienced psycho-oncology/health service researchers with a track record in both qualitative and migrant research (JS and HS) developed a coding schedule with differences resolved through discussion and consensus. Interviews/focus groups were conducted using a constant comparative methodology and continued until no new themes were identified; that is, saturation of themes was reached. The data were analysed using open, axial and selective coding [14]. A phenomenological thematic analysis was then conducted. Prior to the analysis, the researchers reflected on their assumptions of the migrant illness experience to ensure no a priori assumptions and then made notes on their reflections during their review. Ethics approval to undertake the project was obtained through the Ethics Review Committee of the Sydney Local Health District (protocol number X13-0316).

## Results

Two focus groups (90 min) and 11 telephone interviews (30 min) were conducted. Seven patients participated in focus groups, and 11 patients and one carer participated in telephone interviews. Table 1 lists focus group and interview participation for each language group. Mean age of participants was 60.5 years and 55 % were female. Participants had been diagnosed with a range of cancers. Mean time since diagnosis was 3.1 years (SD=2.4), and participants in both active treatment (33 %) and follow-up (61 %) were recruited. Participant characteristics are listed in Table 2.

### Experience of cancer care coordination

Participants' narrative accounts of their cancer treatment highlighted a range of experiences with respect to their

**Table 1** Focus group and interview participation

Method of data collection	Language group	Participants (n)
Focus group	Arabic	4
	Cantonese	3
Telephone interview	Arabic	1
	Cantonese	3
	Mandarin	2
	Macedonian <sup>a</sup>	5

<sup>a</sup> Includes one carer interview

diagnosis, treatment and follow-up care. Overall participants perceived the quality of cancer care received to be good and their care to be well coordinated. The majority of participants reported that their treating clinicians (oncologist and/or surgeon) explained treatment options, and these participants perceived that they were adequately informed. One participant said the following:

*The Specialist explained it very clearly. The GP just explained what was in the report generally. The specialist gave a more in-depth explanation about what examinations I would get next and what I would need to do (Cantonese patient 2).*

A smaller number reported not knowing the rationale for some tests undertaken and a lack of understanding of their overall treatment protocols:

*Interviewer: when he told you he wanted you to do this and that test, did you know what the tests were for?  
Patient: They don't tell (Arabic patient 4).*

There was also a general consensus that scheduling of treatment and clinic visits was streamlined, with the majority of participants having a positive view of their hospital experience. The role of the general practitioner (GP) in assisting coordination of care varied from being an active advisor throughout diagnosis and treatment to that of an initial referral for diagnostic testing only. Few participants were able to identify a cancer care coordinator as part of their care team, although several Chinese participants had contact with a breast care nurse.

Patient interviews confirmed that the domains of communication and navigation (included in the CCCQ) were relevant to this patient group, as many of the issues raised by participants were similar to those highlighted by Anglo-Australian participants and therefore captured in the existing measure.

### Factors hindering or facilitating cancer care coordination

Participants reported that the facilitators of well-coordinated care included clarity around the rationale for tests and treatment, understanding the treatment schedule and potential side effect risks and timely access to services as required. However, participants highlighted a number of factors that they perceived impacted the quality of their cancer care across these domains as a direct result of their migrant status. Within the overarching domain of communication, two sub-themes were identified: (1) the impact of language on understanding and information access and (2) the role of interpreters. Under the navigation domain, two sub-themes were also identified:

**Table 2** Sample demographic and clinical characteristics

Variable		No. of participants (n)
Age (years)	Mean (SD)	60.5 (13.0)
Gender	Male	8
	Female	10
Country of birth	Lebanon	4
	Egypt	1
	Hong Kong	4
	China	4
	Macedonia	5
Years in Australia	<5 years	1
	6–10 years	0
	11–20 years	0
	>20 years	14
	Not answered	3
Cancer site	Breast	5
	Colorectal	4
	Lymphoma	1
	Lung	1
	Sarcoma	1
	Gastric	1
	Adrenal	1
	Unknown	3
Stage at diagnosis	1	2
	2	6
	3	2
	4	2
	Not known	3
	Not answered	3
Years since diagnosis	0–1 year	5
	2–3 years	5
	4–5 years	5
	>5 years	1
	Not answered	2
Currently receiving treatment	0–1 year	5
	Yes	6
	No	11
Treatment received	Not answered	1
	Surgery	1
	Chemotherapy	1
	Radiotherapy	0
	Surgery/chemotherapy	7
	Chemotherapy/radiotherapy	1
	Surgery/chemotherapy/hormone treatment	3
	Surgery/chemotherapy/radiotherapy	3
	Not answered	2

(3) access to health professionals and services and (4) understanding the roles and responsibilities of the team.

### Communication: the impact of language on understanding and information access

Consistent with items within the CCCQ, participant understanding of their cancer care centred on how well their GP and their specialist clinician(s) explained the diagnosis and subsequent cancer treatment. However, unique to this group was the degree to which the doctor was able to overcome the patient's language difficulties during this process. Language difficulties arose throughout the care pathway. This was underscored by a number of participants with limited English being unable to identify the cancer type that they had been treated for and to clearly articulate treatments received. Patients said the following:

*Well they did tell but I could not understand it is another language you know. Something you understand something you don't. [I] did not know what it was all about... To be honest I don't know exactly [what type of cancer I have]. And nobody tells exactly (Mandarin patient 2). I don't know these things [cancer type]. Main thing is I now have some therapies, some chemotherapy they are giving me (Mandarin patient 1).*

Having limited English and subsequent limited understanding of treatment protocols was of particular relevance when there were changes to treatment and caused distress to some participants, as changes were perceived as errors in treatment administration. For example, two participants discussed their confusion when chemotherapy was delayed based on blood test results. These responses highlight a lack of understanding of the safety protocols associated with chemotherapy, a standard component of chemotherapy education for patients. Several participants also reported not having sufficient information regarding side effects and misunderstanding instructions for symptom management.

*I knew the duration of each session. The eleventh and twelfth sessions were shorter. Did they forget to give infusion of one medicine? I thought there was something wrong. I called my daughter and asked her to ask the nurse. She said medicine were not necessary (Mandarin patient 3).*

*In the pre admission to hospital I was never told about side effects of sensational feeling under the armpit by health professional after the operation (Cantonese patient 3).*

*The doctor gave me a tube of tooth [sic] paste, for applying on the skin [after chemotherapy]. But I didn't use it. I didn't know at first. I thought it was toothpaste (Mandarin patient 3).*

A few participants reported that the treating clinician provided access to translated booklets and website information. Other participants reported seeking information online, from migrant community support networks or being reliant on family and friends to direct them to information that they could understand. Information was also accessed from websites/resources originating in the patient's country of birth. A small number of participants reported that having a GP or other health professional who could speak their language assisted their understanding of information. One participant also reported using online dictionaries to translate the English information into Chinese.

*They did provide the brochures about cancer in Chinese. The oncologist spoke English. But he gave me information in Chinese. He also showed me the Chinese information on his mobile phone (Cantonese patient 4). All the materials, for example, the surgery instructions and the notice of hospitalization, of course were in English. They gave these to the patients because they were supposed to. For example, when I went through the admission procedure at the admission office, they gave me a pile of materials about what I was supposed to do before and after the surgery. Of course, they were in English, not in Chinese (Mandarin patient MP1). If you don't speak English, you have disadvantages because you don't know where to get the information (Cantonese patient 5).*

### Communication: the role of interpreters

Coordination of care was facilitated through the widespread use of in-person or phone professional interpreter services.

*There was an interpreter... The interpreter explained it all to me [treatment] and I am clear and have nothing more to ask (Macedonian patient 1). they insisted—despite my son being with me—to bring in an interpreter to ensure that the information reached me. [they said] maybe your son would miss a word or forget it. I could trust that all information reached me faithfully, and that I followed the instructions correctly (Mandarin patient 5).*

However, access to interpreter services was contingent on the treating clinician making a request. One participant reported that she requested an interpreter on a number of occasions but was told by her oncologist that the hospital did not have interpreters.

In general, clinicians arranged professional interpreters for pivotal visits to assist participant understanding. During more routine visits, however, such as during chemotherapy

administration or interactions with more junior medical staff, professional interpreters were seldom used and patients relied on family members or other health professionals who spoke their language to assist their understanding.

*Very seldom when I would go on my own for minor issues it was not necessary but for some important issues I always had an interpreter (Macedonian patient 1). they [the oncologist] would get me an interpreter because I wanted to know what was wrong with me in detail. Later, the interpreter stopped coming because the doctor's registrar would talk to me (Arabic patient 4).*

### Navigation: accessing health professionals and services

Most participants reported that treatment and follow-up appointments were arranged by the hospital and they were told when to attend:

*...when they call me I have to see them.... I don't know who is in charge of those things, but they would send me a letter and I have to report in the address in the letter (Macedonian patient 1).*

Some reported that they booked their own appointments, sometimes with the assistance of family, to be confident of not missing scheduled appointments. Others were unsure of the reasons for attendance or the process of scheduling appointments. Problems arose when there were changes to treatment schedules, as having limited English meant that participants were often unaware of the changes and/or the reason for rescheduling. For example, one participant said the following:

*But my appointments were rescheduled...Once they didn't reach me by phone, so they left a message on my home phone, again and again... but they all spoke in English [so I did not understand] (Mandarin patient 2).*

Although the majority of participants were satisfied with the coordination of their cancer treatment, several participants reported being unaware of additional services, particularly support services within the hospital or their communities. Participants accessed these services through contact with other patients. Only one participant reported being referred to a support group, which was English speaking, and although the patient had sufficient English to participate, this participant perceived that greater benefit would have been achieved by attending a Chinese group with shared cultural experiences.

*The health care staff did not specially refer me to anything after I had the operation. When I got better, I*



*attended the Canrevive [Chinese cancer support service].... I have a friend who was also a cancer patient. She recommended it me. The hospital didn't recommend anything specially (Cantonese patient 3). They didn't give me such information [about psychosocial support]... I stayed at home in those days. If there was someone to talk to, someone having the same disease and the same background, it would be very good. But nobody gave me such information (Mandarin patient 2).*

### **Navigation: health professional roles and responsibilities**

Participants also highlighted a lack of understanding with respect to health professional roles and responsibilities. Although they understood who their primary treating clinician was, they were unaware of roles within the larger treating team:

*Sometimes there were three, four [members of the treating team], I don't know them all... Well I am sure about the one that operated me (Macedonian patient 2).*

Two participants reported receiving home visits as part of follow-up care without understanding their purpose:

*Tomorrow some woman is coming, they called my wife from the hospital and told her a nurse is coming to see me... I don't know if she is a social worker or a nurse  
Interviewer: RA. And why is she coming to your home?  
I don't know, I haven't seen her I will know tomorrow at 11 (Macedonian patient 2).*

### **Discussion**

This study is the first to explore factors that impact on the quality of cancer care coordination amongst patients from migrant backgrounds in Australia. While many barriers and facilitators to well coordinated cancer care were similar to those reported by Australian-born patients and reflected in the existing CCCQ, this research identified unique challenges faced by migrants. Access to information that is understandable to patients with limited English and to interpreter services for routine visits, an understanding of the different roles of health professionals within cancer teams and access to services that are culturally relevant and available in the patient's own language were highlighted as important aspects of well coordinated cancer care.

Open informed discussion between patients and their care team is most effective when all speak the same language and is particularly important in cancer care due to the complexity of treatment. Consistent with the findings of previous studies [14–16], this study highlighted that unmet information need as a result of limited language support has a negative impact on patients' perceptions of the quality of cancer care. Inadequate information prevents patients actively participating in treatment decisions [17] or leads to poor treatment decisions, particularly if patients rely on information of variable quality accessed via the internet [18]. This unmet need exists despite the availability in Australia of a comprehensive library of in-language resources, suggesting that information needs are not systematically assessed or addressed in this patient group.

This study also highlighted the importance of professional interpreter services. Encouragingly, given the higher rate of errors in translation associated with use of ad hoc untrained interpreters and the risk of family members filtering information conveyed to patients [19], participants reported that for pivotal consultations at least, clinicians generally insisted on using professional interpreter services rather than family. Of concern is the finding that although the majority of senior clinicians made use of professional interpreters, these services were underutilised by more junior staff. This suggests the need for training in cross-cultural care or greater empowerment of junior staff to access patient services as required [20]. Similarly, interpreters were generally not used during routine treatment visits and, when scheduling appointments, leaving patients vulnerable to poorly coordinated care. While use of interpreters at each patient contact may not be feasible, culturally targeted patient navigator programs may assist [16, 21].

In addition to unmet information needs, patients commonly reported unmet emotional needs, evidenced by the lack of referrals to services offering emotional support. Within the Chinese community in particular, community cancer support organisations are well established and provide information sessions, written resources and support group activities for patients and their families. Despite their availability, information about these services was not provided by the treating team. Cultural biases with respect to discussing emotional problems with strangers and views that psychosocial support services are for the mentally ill reduce the likelihood of patients seeking support independent of the treating team, further contributing to the increased prevalence of psychological distress amongst migrant cancer groups [11, 16, 22]. It is therefore essential for the cancer team to facilitate access to culturally appropriate support services as part of standard care, particularly as patients commonly reported that they were unaware that services were available and were

unsure who within the health care team could assist them to access support.

There are a number of limitations to this study which need to be considered. Firstly, we included only some of the many migrant groups in Australia, and results may not generalise to other communities. Second, the sample size was small, although we did observe saturation of themes. Factors such as age, level of education, acculturation and unique cultural factors may influence how patients interact with the health system and influence perceptions of coordination of care. Furthermore, all participants in this study had been living in Australia for a number of years and their views may not reflect the experiences of newly arrived migrants. This limitation reflects the migrant groups targeted and the willingness of patients to participate in a research study. Third, participants were identified through self-reported language spoken at home within hospital medical records; a number of Chinese participants reported high levels of English proficiency and health knowledge that may have impacted their experience of care.

If interventions to improve service delivery are to be successful, standardised measures of assessment need to reflect the experiences of all patients [9]. Previous work has confirmed that there is a psychometrically sound measure of cancer care coordination (CCCQ) [13]. However, this measure does not capture some of the unique challenges of migrant patients' face. To ensure cross-cultural validity, we recommend the inclusion of items related to provision and/or access to reliable information in the patient's own language, access to health professionals who speak the patient's language, access to interpreter services and understanding how the Australian health system works. A revised version of the CCCQ is currently under development and will be tested in a culturally diverse sample in future research.

In conclusion, access to information in a format that patients with limited English can understand, access to interpreter services, navigation of the health system and access to language appropriate services were highlighted as important migrant-specific aspects of care coordination that need to be assessed.

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#### Compliance with ethical standards

**Conflict of interest** The authors declare that they have no competing interest.

**Data access** The authors have full control of all primary data and agree to allow the journal to review data if requested.

## References

- Hofmarcher MM, Oxley H, Rusticelli E (2007) Improved health system performance through better care coordination. Health Working Paper 30 OECD Publishing, Paris
- Aiello Bowles EJ, Tuzzio L et al (2008) Understanding high-quality cancer care. *Cancer* 112:934–42
- Thorne SE, Bultz BD, Baile WF (2005) Is there a cost to poor communication in cancer care?: a critical review of the literature. *Psychooncology* 14:875–84
- Cancer Institute of NSW Cancer Plan 2011–2015. 2010, Cancer Institute NSW: Sydney
- Queensland statewide cancer treatment services plan 2010–2017. 2009, Queensland Department of Health, Queensland Government. Brisbane
- Australian Bureau of Statistics. 2011.0—reflecting a nation: stories from the 2011 census, 2012–2013 (accessed February 2015)
- Butow P, Bell ML, Aldridge LJ et al. (2003) Unmet needs in immigrant cancer survivors: a cross-sectional population-based study. *Supp Care Cancer*. 212509–20.
- Du XL, Fang S, Vernon SW et al (2007) Racial disparities and socioeconomic status in association with survival in a large population-based cohort of elderly patients with colon cancer. *Cancer* 110:660–69
- Chu KC, Miller BA, Springfield SA (2007) Measures of racial/ethnic health disparities in cancer mortality rates and the influence of socioeconomic status. *J Nat Med Assoc* 99:1092–100
- Krupski TL, Sonn G, Kwan L et al (2005) Ethnic variation in health-related quality of life among low-income men with prostate cancer. *Ethn Dis* 15:461–68
- Goldstein D, Bell ML, Butow P et al (2014) Immigrants' perceptions of the quality of their cancer care: an Australian comparative study, identifying potentially modifiable factors. *Ann Oncol* 25: 1643–49
- Butow P, Sze M, Dugal-Beri P et al (2011) From inside the bubble: migrants' perceptions of communication with the cancer team. *Supp Care Cancer* 19:281–90
- Young JM, Walsh J, Butow P et al (2011) Measuring cancer care coordination: development and validation of a questionnaire for patients. *BMC Cancer* 11:298. doi:10.1186/1471-2407-11-298
- Palmer NRA, Kent EE, Forsythe LP et al (2014) Racial and ethnic disparities in patient-provider communication, quality-of-care ratings, and patient activation among long-term cancer survivors. *J Clin Oncol* 32:4087–94
- Ayanian JZ, Zaslavsky AM, Guadagnoli E et al (2005) Patients' perceptions of quality of care for colorectal cancer by race, ethnicity, and language. *J Clin Oncol* 23:6576–86
- Nápoles-Springer A, Ortiz C, O'Brien H et al (2009) Developing a culturally competent peer support intervention for Spanish-speaking Latinas with breast cancer. *J Immigr Minor Health* 11: 268–80
- Shaw J, Zou X, Butow P (2015) Treatment decision making experiences of migrant cancer patients and their families in Australia. *Patient Educ Couns* 98:742–47
- Wagner EH, Aiello Bowles EJ, Greene EJ et al (2010) The quality of cancer patient experience: perspectives of patients, family members, providers and experts. *BMJ Qual Saf* 19:484–89

19. Flores G (2005) The impact of medical interpreter services on the quality of health care: a systematic review. *Med Care Res Rev* 62: 255–99
20. Lee KC, Winickoff JP, Kim MK et al (2006) Resident physicians use of professional and nonprofessional interpreters: a national survey. *JAMA* 296:1049–54
21. Dohan D, Schrag D (2005) Using navigators to improve care of underserved patients. *Cancer* 104:848–55
22. Butow PN, Alridge L, Bell M et al (2011) Cancer survivorship outcomes in immigrants. *J Clin Oncol* 30(suppl):6111