



Patient-expressed perceptions of wait-time causes and wait-related satisfaction

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ABSTRACT

Background

This study set out to identify patterns in the causes of waits and wait-related satisfaction.

Methods

We conducted qualitative interviews with urban, semi-urban, and rural patients ($n = 60$) to explore their perceptions of the waits they experienced in the detection and treatment of their breast, prostate, lung, or colorectal cancer. We asked participants to describe their experiences from the onset of symptoms to the start of treatment at the cancer clinic and their satisfaction with waits at various intervals. Interview transcripts were coded using a thematic approach.

Results

Patients identified five groups of wait-time causes:

- Patient-related (beliefs, preferences, and non-cancer health issues)
- Treatment-related (natural consequences of treatment)
- System-related (the organization or functioning of groups, workforce, institution, or infrastructure in the health care system)
- Physician-related (a single physician responsible for a specific element in the patient's care)
- Other causes (disruptions to normal operations of a city or community as a whole)

With the limited exception of physician-related absences, the nature of the cause was not linked to overall satisfaction or dissatisfaction with waits.

Conclusions

Causes in themselves do not explain wait-related satisfaction. Further work is needed to explore the

underlying reasons for wait-related satisfaction or dissatisfaction. Although our findings shed light on patient experiences with the health system and identify where interventions could help to inform the expectations of patients and the public with respect to wait time, more research is needed to understand wait-related satisfaction among cancer patients.

KEY WORDS

Wait times, patient satisfaction, breast cancer, prostate cancer, colorectal cancer, lung cancer

1. BACKGROUND

“Patient satisfaction” refers to personal evaluations by patients about whether their lived health care experiences measure up to their expectations¹. Patient satisfaction is generally accepted as a dimension of quality of care² and patient-centred care³. A number of studies have examined patient satisfaction in cancer care and have highlighted communication between the physician (and other members of the team) and the patient^{3,4}. Nonetheless, wait times for care are frequently cited as a cause of patient dissatisfaction with the health care system⁵.

Studies examining wait times for cancer care and wait-related satisfaction have a number of limitations. First, some studies examine the length of time spent in a waiting room preceding a single visit; few studies have looked at waits as patients progress from symptoms, to testing, and to diagnosis and treatment. Second, some researchers have described wait times for the various intervals from symptoms to treatment, but we found only one Canadian study that considered patient satisfaction with those waits. In a study of colorectal cancer patients in Nova Scotia, researchers found only a modest correlation between length of wait and wait-related satisfaction⁶.

Does patient satisfaction vary based on the cause of the wait? Wait times along the pathway from symptoms to treatment are commonly described in

the literature as resulting from patient and provider delay. “Patient delay” refers to the interval from the onset of symptoms to the first medical consultation, usually with the patient’s regular physician^{7–9}. “Provider delay” refers to the period after the first visit to a health care provider (in Canada, usually the general practitioner or family physician)^{6,10,11}. The terminology suggests that waits during those periods result from the provider or the patient. For example, a lengthy wait to see a physician about symptoms is attributed to the patient, and delays occurring after the initial visit are attributed to physician- or health system–related issues. Although some studies have described patient and provider delays, we were unable to find studies that examined the relationship between patient satisfaction and wait time causes. The purpose of the present study was therefore to identify patterns in causes of waits and wait-related satisfaction.

Using qualitative interviews, we asked patients from Newfoundland and Labrador to describe their experiences from the onset of symptoms to the start of treatment at the cancer clinic. As in other provinces in Canada, Newfoundland and Labrador has invested resources in improving wait times for cancer care¹². By examining the care-seeking process, we adopt a patient-centred approach and aim to better understand the patient’s experience of cancer and interactions with the health care system. The study contributes to the understanding of public perceptions of wait times and efforts to improve timely access to cancer care.

2. METHODS

Memorial University’s Human Investigations Committee approved the study. We conducted semistructured qualitative interviews with breast, lung, colorectal, and prostate cancer patients who, in an earlier survey, had expressed satisfaction or dissatisfaction with their wait times while seeking care for their cancer.

Eligible study participants were residents of Newfoundland and Labrador who were 19 years of age or older and who had been diagnosed between January 2009 and August 2011. We excluded participants with previous or multiple cancer diagnoses because their wait-time experiences might differ from those of patients who are diagnosed with one type of cancer for the first time. For the initial survey, we recruited cancer patients from regional cancer clinics across the province and mailed invitations to individuals identified through the provincial cancer registry. The survey gathered information about dates in the care-seeking process, satisfaction with interval-specific wait times (for example, from symptoms to first visit with a health care provider, from first visit to diagnosis, and so on), and clinical and personal characteristics. A fuller description of the survey procedures are provided elsewhere¹³. At the end of the survey, respondents were invited to take part in the qualitative interview, and

willing respondents were later contacted to complete consent forms and schedule interviews.

Patients were selected for an interview based on their responses to survey questions about community of residence and satisfaction with various waits. From among the survey respondents, we identified urban (population $\geq 100,000$), semi-urban (population 10,001–99,999), and rural (population $\leq 10,000$) residents who were satisfied or dissatisfied with their overall wait time from onset of symptoms to care at the cancer clinic. Because patients were overwhelmingly satisfied with the overall wait time, we then amended our recruitment to patients who had expressed dissatisfaction with any wait interval. For each cancer type and community size, we recruited a minimum of 3 patients who were satisfied or dissatisfied with their wait time experiences. The final number of interviews was determined when saturation of ideas and concepts was reached¹⁴.

The interviews were conducted in person or by telephone and ranged in length from 8 minutes to 82 minutes. We asked participants about their wait times and causes of waits from onset of symptoms to receiving treatment for their cancer, their level of satisfaction with those wait times, any barriers to receiving care in their community, factors that might make cancer care accessible in their area, and what could have been done to improve their wait times or the quality of care that they received. Each interview was tape-recorded and later transcribed verbatim.

Using a thematic approach, three members of the research team each independently read 4 transcripts to identify key themes and concepts. We then developed a template to code the remaining transcripts. To ensure consistency in coding, we defined and described each code. Each transcript was then read and coded by two members of the team (one research assistant read and coded all transcripts). Throughout this process, data from previous interviews were continuously compared to identify concepts, categories, clusters, and themes^{14,15}. Disagreements in coding were resolved by consensus. Where disagreements arose, members of the research team re-examined the descriptions of individual themes to determine the source of disagreement. Those discussions led, as needed, to clarification of code and theme definitions, the creation of new themes, or the integration of new ideas within a theme. The NVivo 9 qualitative data analysis software (version 9, 2010: QSR International, Doncaster, Australia) was then used to re-code all transcripts using the final coding template.

In the present article, we focus on the causes of disruptions in timely care. Numbers are used to identify individual participants.

3. RESULTS

Of 128 invited patients, 60 (46.9%) participated in an interview. Table 1 shows participant characteristics

TABLE 1 Characteristics^a of the interview participants

Characteristic	Cancer type				
	Breast	Colorectal	Lung	Prostate	Overall
Participants (n)	18	15	11	16	60
Sex [n (%)]					
Men	0 (0)	11 (73.3)	6 (54.5)	16 (100.0)	33 (55.0)
Women	18 (100)	4 (26.7)	5 (45.5)	0 (0)	27 (45.0)
Age [n (%)]					
<65 Years	16 (88.9)	10 (66.7)	6 (54.5)	8 (50.0)	40 (66.7)
≥65 Years	2 (11.1)	5 (33.3)	5 (45.5)	8 (50.0)	20 (33.3)
Community of residence [n (%)]					
Urban	6 (33.3)	5 (33.3)	1 (9.1)	3 (18.8)	15 (25.0)
Semi-urban	6 (33.3)	4 (26.7)	2 (18.2)	4 (25.0)	16 (26.7)
Rural	6 (33.3)	6 (40.0)	8 (72.7)	9 (56.3)	29 (48.3)
Marital status [n (%)]					
Married or equivalent	16 (88.9)	13 (86.7)	10 (90.9)	16 (100.0)	55 (91.7)
Single	2 (11.1)	2 (13.3)	1 (9.1)	0 (0)	5 (8.3)
Employment situation [n (%)]					
Full-time	4 (22.2)	2 (13.3)	1 (9.1)	0 (0)	7 (11.7)
Part-time or seasonal	9 (50.0)	1 (6.7)	0 (0)	2 (12.5)	3 (5.0)
Sick leave	0 (0)	3 (20.0)	2 (18.2)	2 (12.5)	16 (26.7)
Unemployed, homemaker, or student	1 (5.6)	2 (13.3)	1 (9.1)	0 (0)	4 (6.7)
Retired	4 (22.2)	7 (46.7)	7 (63.6)	12 (75.0)	30 (50.0)
Level of education completed [n (%)]					
High school or less	3 (16.7)	6 (40.0)	5 (45.5)	8 (50.0)	22 (36.7)
More than high school	15 (83.3)	9 (60.0)	6 (54.5)	8 (50.0)	38 (63.3)
Household income [n (%)]					
<\$30,000	0 (0)	3 (23.1)	3 (33.3)	3 (21.4)	9 (17.0)
\$30,000–\$59,000	10 (58.8)	4 (30.8)	6 (66.7)	8 (57.1)	28 (52.8)
>\$60,000	7 (41.2)	6 (46.2)	0 (0)	3 (21.4)	16 (30.2)
Wait time, first visit to diagnosis (days)					
Median	67.50	91.00	105.00	84.00	84.00
Range	12–723	0–851	14–897	5–642	0–897

^a Numbers for individual characteristics might not match participant numbers because of missing data.

and the overall wait time for a diagnosis. Participants identified five categories of wait-time causes. Table 11 summarizes those categories and indicates whether the cause was identified by patients who were satisfied or dissatisfied with their wait times. During the interview, patients could identify more than one wait and more than one cause as a source of their satisfaction or dissatisfaction.

3.1 Patient-Related Causes

Patients themselves can contribute to wait times because of their own beliefs, preferences, and non-cancer health issues. Patients can lengthen the time to diagnosis if they delay seeking care for symptoms. There can be many reasons for a delay: lack of awareness of cancer symptoms, dismissal of symptoms, embarrassment, or a sense of infallibility. When

asked why she had waited more than 6 months to see a physician about a lump in her breast, a satisfied breast cancer patient responded, “Because that’s just me, I guess [laugh]. When I felt it in July, I don’t know. The way I always see it was that I, I never think that stuff can happen to me” (patient 114).

Patients might have comorbid conditions unrelated to the cancer diagnosis that delay or rule out scheduled treatment. For example, a dissatisfied prostate cancer patient’s pre-existing heart condition altered his planned surgery: “And we made an appointment to see [the oncologist], and when I saw him, we decided to go with, uh, the radiation because where I had a heart attack, and they were scared of blood clots” (patient 446). Patients might develop an acute illness unrelated to their cancer diagnosis. A satisfied breast cancer patient recalled that her surgical biopsy was postponed: “I was supposed to have

TABLE II Patient satisfaction or dissatisfaction with wait times by wait time cause

Cause	Perception of wait time	
	Satisfied	Dissatisfied
<i>Patient-related</i>		
Planned vacations or events	X	X
Acute illness unrelated to cancer diagnosis	X	
Comorbid condition unrelated to cancer diagnosis	X	X
Patient dismissed symptoms	X	X
Patient sought second opinion	X	X
Patient considering treatment options	X	
<i>Cancer treatment-related</i>		
Healing time from phase of treatment	X	X
Side effects from treatment		X
Time needed for treatment preparation	X	X
Inconclusive tests	X	X
<i>System-related</i>		
Staff shortage	X	X
Nosocomial infection	X	
Emergencies disrupting scheduled procedures	X	X
Poor communication between centres or providers	X	X
Missed tests (ordered but not performed or results not back)	X	X
Supply shortage		X
Treatment not available in province	X	X
Equipment maintenance	X	
Flooding (infrastructure)	X	
<i>Physician-related</i>		
Physician dismissed symptoms	X	X
No follow-up after positive test	X	X
Physician absence because of license suspension	X	
Physician absence because of turnover		X
Physician absence because of illness		X
Physician absence because of vacation (without coverage)		X
<i>Other</i>		
Weather		X
Statutory holidays	X	X

[the biopsy] done on July 29th, but I was sick. I came down with like, the 'flu. They will not do surgery on you when you got the 'flu" (patient 112).

Time is also needed for patients to consider treatment options or to seek out second opinions. For example, as a satisfied prostate cancer patient noted, he needed time to learn about the various

treatments available to be able to make an informed decision: "But I was also shocked being, uh, at having to choose my own treatment.... I then had to go and look up all this stuff up, all the treatment options" (patient 447).

Patients can opt to delay treatment if they already have personally significant activities planned. For example, a satisfied prostate cancer patient chose to delay a diagnostic test because of an upcoming vacation: "Getting the biopsy done was what took the longest, but that was because I had a trip planned ... [and they said,] 'You know, take the trip by all means, and we'll set it up for when you get back'" (patient 451). Another satisfied prostate cancer patient delayed radiation therapy to be able to hunt: "Yeah, now I could have had the treatment before I suppose ... [but] I had a moose license starting in September, and I told him I wanted that week" (patient 455).

3.2 Cancer Treatment-Related Causes

Waits can also result from the treatment of the cancer itself. Such causes can be a natural consequence of treatment, with the ensuing wait time scheduled into the treatment plan. Alternatively, cancer-related causes can result in unexpected waits that disrupt the schedule of treatments or lead to an alteration of the treatment plan altogether. For example, patients might need time to recover from surgery before proceeding to the next phase of treatment. In describing her 6-week waiting period for adjuvant therapy, a satisfied lung cancer patient noted: "And as far as I'm concerned the wait time, uh, you couldn't ask for any better. Because, number one, between the surgery and the chemo, I had, I needed six weeks to recover anyway from the, the surgery before I could really travel" (patient 343).

Patients might also need time to return to health from the side effects of treatment. A satisfied colorectal cancer patient recalled needing time to heal from radiation before surgery could proceed: "So ... when I came back out after treatment, I had to wait then for a while longer before I could go and get surgery, because I guess where I was burned up so bad—like you know, my insides and that—I guess it took a while for to get back to pretty much normal again, right?" (patient 228). Side effects can also cause treatments to be unexpectedly delayed or cancelled. A dissatisfied colorectal cancer patient described how side effects contributed to the delays in his treatment plan: "I really got into some very bad problems because, the point is that I had a rare blood enzyme and the chemo actually wiped it out.... And whatever, I only managed seventeen because the point is that I got very, very sick, and I was admitted to hospital" (patient 223).

Time can also be required to prepare for treatment. For example, a dissatisfied prostate cancer patient who had received radiation said, "Uh, [the

oncologist] said, ‘It takes two weeks from when they do the mapping ... for all the technicians, the radiologists, myself, and everything else, to sit down, do all the analysis, figure out which is the best form. You know, how treatment is going to be performed’” (patient 449). Although the patient was dissatisfied with his overall wait time, he understood that the reason for the 2-week period was the preparation for his treatment.

Patients can also encounter waits because tests are inconclusive and further testing is needed before treatment can proceed. In such instances, patients recognize that there was no error in the testing process, but rather that the test did not reveal needed information. For example, a dissatisfied breast cancer patient described the cause of one of her waits this way: “[The surgeon] said, ‘We gotta do another biopsy on you because we didn’t find nothing from the first one’” (patient 106). Like side effects from treatment, inconclusive testing can delay or disrupt the planned schedule of care.

3.3 Health System–Related Causes

Waits can also be a result of the organization and functioning of the health care system. These wait-time causes relate to the performance of groups of individuals (as opposed to a single health care provider) and to workforce, institution, or infrastructure issues (including lack of needed resources or treatments).

Procedures can be postponed or cancelled to accommodate emergency cases. For example, a satisfied colorectal cancer patient recalled why his surgery was moved from its original date: “They had to cancel [the surgery] once, because they had an emergency come up, but that was only cancelled then for a couple days” (patient 232).

Staff shortages were identified as a source of extended waits. Shortages can arise from a variety of causes, including scheduled vacations, turnover, or job action. For example, a dissatisfied breast cancer patient recalled having to wait longer for services because appointments were cancelled on account of a pending nurses’ strike: “I guess [my family doctor] contacted Gander [a regional centre], and I waited and waited, and that was the time when there was a pending nurses’ strike, too. The first appointment was scheduled for May, May 20th, 2009, and that was cancelled because of the pending strike” (patient 103). A dissatisfied lung cancer patient said that he waited for a clerk to return from vacation to be able to access test results: “My surgeon’s secretary said the reason they hadn’t sent [my test results] out was because the person who sends out that stuff was gone away” (patient 334).

Poor communication and coordination between health care providers or institutions was also blamed for causing delays. For example, a dissatisfied colorectal cancer patient who lived in Labrador complained that she had to obtain copies of her reports

from the cancer clinic in St. John’s to take to her family physician: “Doctors in here [in Labrador] have no clue what your doctors done out there [in St. John’s]... How are they supposed to do follow-up if they don’t get the [test results] for three months down the road or more?” (patient 220).

In some cases, ordered tests were not performed (or the results were never disclosed), causing treatment to be delayed. A satisfied colorectal cancer patient described why her diagnosis took so long: “So [my family doctor] looked back at my blood work, and she said, ‘Oh my,’ she said. ‘Your hemoglobin wasn’t checked’ ... and I don’t know if it was the doctor’s fault or the lab’s fault and I didn’t ask, and I guess you’ll never know. But the hemoglobin was not done” (patient 231). Another satisfied patient with colorectal cancer recounted how her surgery had to be postponed because tests results had not been sent: “I think they were waiting for the [test]... They booked the surgery anyway, and when they didn’t get the report of the [test], they just cancelled that [surgery]” (patient 233).

Hospital-acquired infections (or the risk of acquiring an infection during an outbreak) were also cited as a cause for delays in tests and treatments. For example, a satisfied woman with lung cancer said that her treatment had been delayed because she contracted a nosocomial infection during a hospital stay: “And I was in the hospital because I contracted that MRSA bug... So I was in the hospital until the thirty-first of May” (patient 340). Unlike the delays caused by the cancer diagnosis itself (such as time to recover from surgery or side effects) or by patient-related acute illnesses or comorbid conditions, these delays are unrelated to the cancer or the patient.

Patients might also have to wait for care because a needed resource was not readily available. For example, a dissatisfied patient with colorectal cancer explained how her surgery was cancelled at the last minute because of a lack of hospital beds: “And, ah, by ten, they still weren’t decided whether they were going to do surgery or not. They couldn’t get an ICU bed” (patient 220). Patients in smaller centres might have to travel to a larger community to access equipment or procedures that are not available locally. A dissatisfied colorectal cancer patient from a northern rural community noted that “There is no MRI machine here; if you need an MRI you need to travel one hour or three hours for that test... We have to fly to Goose Bay and back to get a, a CAT scan” (patient 219). A satisfied prostate cancer patient said that his wait for treatment had to do with his desire to receive a form of treatment that, at the time of the study, was not offered in the province: “The [treatment] I opted for is not done [in Newfoundland]. The closest place for that is in Moncton” (patient 459).

Equipment maintenance was also cited as a cause for delay in receiving procedures. For example, a satisfied breast cancer patient who experienced a

lengthy wait to receive her diagnosis described how ultrasonography was delayed as the hospital waited to replace a broken piece of equipment: “The only thing that I sort of was pissed off with the wait time was the time it took them to get the piece of equipment in St. Anthony. I know it’s probably not something that is controllable.... I was a full month before waiting for that piece of equipment” (patient 114). Similarly, delays can result from problems with the hospital itself. A satisfied colorectal cancer patient whose surgery had been postponed a number of times recalled the effect of flooding at the hospital: “Well, I was booked in for the third time, and darn me if I didn’t get caught up in St. Claire’s [hospital] flooding.... They had a leak in the roof or something, and all the ORs were flooded” (patient 233).

3.4 Physician-Related Causes

Unlike health system–related causes, physician-related causes of waits were attributed to a single physician who was responsible for a specific element in the patient’s care. For example, patients cited the family physician’s dismissive attitude for contributing to the time to diagnosis. In one case, a dissatisfied colorectal cancer patient described her family physician’s reactions to her symptoms: “I kept saying, ‘My tummy doesn’t feel right; I feel like there’s something wrong. Maybe you could do an endoscopy test,’ and [the family doctor is] like, ‘You’re 39, and you don’t have any symptoms, there’s nothing wrong with you.’ And they basically laughed in my face that I was complaining so much.... But my family doctor had no interest whatsoever in finding out what was wrong with me” (patient 219).

Patients were critical of physicians who did not notify them in a timely manner about positive test results. For example, a dissatisfied breast cancer patient who waited months to hear about test results described the conversation with her family physician: “And then he got my chart, and he said, ‘Look, it says here you had two-centimeter suspected malignancy,’ and, ah, that’s when I was flooded. I said, ‘You’re telling me that’s in my chart, and you didn’t even tell me it was there, and I waited five months?’ And he said, ‘Well, I thought I told ya.’ And I said, ‘Well, if you had told me, I would have remembered’” (patient 103).

Other patients who experienced similar delays were nonetheless satisfied with their wait times.

Physician absences were also often cited as a cause of delay. Such absences were attributed to a number of different causes, including a physician being unable to practice because his license was suspended, as noted by a satisfied lung cancer patient: “I guess [the radiologist] wasn’t following procedure, and I think he was suspended for a while. And that was when all this was going on, and like a lot of the X-rays and CAT scans were all being re-read. And

maybe that was the reason why mine was a little bit late” (patient 341).

Physician turnover was also seen as a reason for lengthy wait times. A dissatisfied prostate cancer patient lamented, “In between the timeframe where I was supposed to get the appointments to see the specialists ... one quit and then you had to wait for another one to come in” (patient 450). Procedures were also postponed if the physician was ill, as in the case of a dissatisfied colorectal cancer patient [“I didn’t get the colonoscopy until—well, I got put off because the surgeon was sick” (patient 220)] or had planned a vacation, as in the case of a dissatisfied breast cancer patient [“I told them I wanted [the biopsy] done for July, and the surgeon was taking his vacation time for all of July month. And instead of passing me over to someone else, ... I didn’t get a biopsy done until August 12th” (patient 103)]. In each of these examples, there was no other physician to cover for the absent physician.

3.5 Other Causes

The final category of wait-time causes referenced disruptions to the normal operations of a city or community as a whole (that is, beyond the health system). These events can be normally occurring and expected, such as statutory holidays. For example, a satisfied woman with breast cancer described her wait for surgery: “And I would have had the surgery a week earlier, only it just happened that his surgery day was July the 1st ... so I had to wait for the second one” (patient 117).

Delays can be caused by severe weather that forces the closure of clinics or limits the ability of patients to travel. A dissatisfied prostate cancer patient described the effect of a severe winter storm on his ability to drive from his rural community: “On the Tuesday they were forecasting one horrendous storm.... Huge snow storm ... and they’re talking like we are going to get thirty, forty, maybe fifty centimetres of snow” (patient 449). This patient opted to drive out the night before and stay overnight in a hotel to make sure he would be able to make his appointment.

4. DISCUSSION

We describe, from the patient’s perspective, the various causes of wait times in cancer care. The findings from this study provide a more comprehensive taxonomy of wait-time causes, expanding on patient and provider delays described in the literature. They also show that causes attributed to the patient, such as comorbidities or the desire to seek second opinions, could produce waits at various times in the care-seeking and treatment process. Moreover, some causes, such as poor weather, can be outside the control of either the patient or the provider.

The causes identified by patients can result in delays that might be an unexpected or expected aspect of normal treatment. For example, recuperating from surgery might have created a wait for the patient that, from the care provider's perspective, was entirely appropriate and expected. Yet patients might nonetheless view such waits unfavourably.

The types of causes identified by patients did not vary with the patient's place of residence. Although patients from rural and semi-urban communities had to travel to receive care, they did not suggest that rurality in itself increased their wait for care. Poor weather might disrupt plans for travel, but rural residents usually planned for travel time or took advantage of visiting or regional clinics to limit waits.

Contrary to expectations, our findings suggest that causes in themselves do not explain wait-related satisfaction. With the limited exception of physician-related absences, the nature of the cause was not linked to overall satisfaction or dissatisfaction with wait time. For example, patients were dissatisfied with uncontrollable causes such as weather. Moreover, satisfaction or dissatisfaction with a wait did not necessarily distinguish between unexpected and expected waits. Waits attributable to healing time or preparation for treatment were experienced by patients who were satisfied and dissatisfied with their wait time. A U.K. study of patients visiting general practice offices or hospital outpatient departments suggested that the system's ability to meet patient expectations, rather than the expectations themselves, influences patient satisfaction¹. Moreover, researchers note that the interpersonal aspects of care and clinical outcome might have more influence on patient satisfaction than wait time does³. In the context of the present study, patients who are knowledgeable about the health system and cancer treatment might have more realistic wait-related expectations than do patients without such knowledge. Patients experiencing better clinical outcomes and more positive interactions with their care team might be more satisfied than patients experiencing poor outcomes and care team interactions, regardless of the cause and length of their waits. Further work is needed to explore those and other underlying reasons for wait-related satisfaction and dissatisfaction.

Data collected during our study are self-reported and subject to patient recall. In addition, participants might have felt obliged to provide socially acceptable responses. The retrospective design of the study, with diagnoses and prognoses already known, could have influenced patient perceptions of wait times. The study included only patients from Newfoundland and Labrador with breast, lung, prostate, or colorectal cancer. Studies of patients with other cancers or with multiple cancers and of patients residing in other provinces are needed. Finally, the study examined the perspectives of patients exclusively. Data from health care providers and administrators could shed light on additional causes of wait times.

5. CONCLUSIONS

In qualitative interviews, patients identified five broad groups of wait-time causes in cancer care: patient-related, cancer treatment-related, health system-related, physician-related, and others. The ensuing waits could have been expected as a natural part of care or unexpected (and delaying timely care). Neither the nature of the cause nor the expected or unexpected nature of the wait could explain patient satisfaction or dissatisfaction with their wait time for care. Although our findings shed light on patient experiences with the health system and identify where interventions might help to inform wait-time expectations on the part of patients and the public, more research is needed to understand wait-related satisfaction among cancer patients.

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7. CONFLICT OF INTEREST DISCLOSURES

We have read and understood *Current Oncology's* policy on disclosing conflicts of interest, and we declare that we have none.

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