

Experiences and perspectives of colorectal cancer survivors and general practitioners on the delivery of survivorship care in general practice: a mixed methods study

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ABSTRACT

Background. Many colorectal cancer (CRC) survivors experience ongoing sequelae from their cancer treatment. Limited evidence exists regarding how CRC survivors and general practitioners (GPs) manage these sequelae in the community. This study aimed to explore the experiences and perspectives of CRC survivors and GPs on current approaches to monitoring and managing sequelae of CRC treatment. **Methods.** We conducted a mixed-methods study using cross-sectional national surveys and qualitative interviews with CRC survivors and GPs to explore: (1) treatment sequelae experienced by CRC survivors, (2) how these were monitored and managed by general practitioners, and (3) suggestions to improve ongoing management of the treatment sequelae. Survey responses were reported descriptively. Qualitative data were thematically analysed using an interpretive descriptive approach. **Results.** Seventy participants completed surveys: 51 CRC survivors and 19 GPs, and four interviews were conducted with GPs. CRC survivors experienced a range of treatment sequelae, but often did not discuss these with their GPs (experienced vs discussed: 86% vs 47% for fatigue/lack of energy, 78% vs 27% for psychological/emotional concern, 63% vs 22% for impaired sleep, 69% vs 29% for weight loss/gain, 59% vs 16% for sexual and intimacy concerns). GPs reported inadequate information transfer from cancer services and workload as major barriers to optimal care. **Conclusions.** System-level changes that facilitate adequate information transfer from cancer services to GPs upon CRC treatment completion, as well as addressing time constraint issues essential for comprehensive monitoring and management of CRC treatment sequelae, could enhance the care of CRC survivors in the community setting.

Keywords: cancer survivorship, colorectal cancer, general practice, general practitioner, primary health care, quality of life, sequelae, supportive care, survivorship care, symptom management.

Introduction

Colorectal cancer (CRC) is the third most common cancer diagnosed in Australia, with the estimated number of individuals diagnosed with CRC being 15,540 in 2021 ([National Cancer Control Indicators 2022](#)). Early stage (I–III) CRC is highly curable, with a 71–99% 5-year relative survival rate ([Cancer Australia 2019](#)). Advances in effective screening, surveillance and treatments have improved survival rates, subsequently increasing the number of individuals living in the community after completing treatment for CRC.

CRC survivors frequently report treatment sequelae that can continue for years after completing treatment and even be lifelong ([Rutherford *et al.* 2020](#)). These sequelae include altered sexual functioning, bowel and/or urinary dysfunction, fatigue and pain, which can lead to secondary challenges in emotional, social, financial and occupational domains ([Rutherford *et al.* 2020](#)). After completing curative-intent treatment, individuals with colon and rectal cancers reported at least one ongoing treatment sequelae in 62% and 90% of cases, respectively ([Vu *et al.* 2019](#)).

The high prevalence of sequelae of treatment experienced by CRC survivors and their well documented unmet needs ([Lim *et al.* 2021](#)) suggest that current models of CRC

survivorship care need improvement. Better approaches to preparing and supporting CRC survivors in the community to manage acute, chronic and late-occurring sequelae are needed. Promoting and improving shared care between cancer services and general practices is one suggested approach.

Prolonged survivorship has necessitated greater involvement and recognition of the role of general practitioners (GPs) in cancer survivorship (Nekhlyudov *et al.* 2017). Their role in case management, ongoing assessment of post-treatment sequelae and health promotion through lifestyle modification are essential in managing cancer as a chronic condition (Emery 2014). The aim of this study was to explore the experiences of CRC survivors, as well as GPs who cared for this patient group, regarding current practices for monitoring and managing the sequelae of CRC treatment in Australian general practice setting, and gather opinions on how CRC survivorship care could be improved.

Methods

Study design

This was a mixed methods study using a cross-sectional national survey and one-on-one interviews with CRC survivors and GPs. For a comprehensive examination of their perspectives and experiences, we utilised a sequential mixed-methods approach, where the survey provided a general overview with larger sample size, followed by interviews, allowing a more in-depth examination of specific topics. Integration of the results occurred during synthesis. For example, in instances where the survey responses required explanation, interview data were utilised. This study reports on survey findings from CRC survivors and GPs, and interviews conducted with GPs. The findings from CRC survivor interviews are presented separately (Rutherford *et al.* 2023) due to the richness of the data describing their experiences and life impacts, warranting a standalone paper.

Participants

CRC survivors were eligible for the study if they were aged ≥ 18 years, had completed primary treatment in Australia following a CRC diagnosis, could share thoughts and experiences in English, and were able to give written informed consent to take part. GPs with experience treating CRC survivors in Australia were eligible to participate.

Recruitment

Several recruitment methods were used. An electronic advertisement containing the participant information sheet and a link to complete an anonymous survey or express interest for an interview was distributed through major professional primary care and consumer societies and organisations

across Australia. All participating organisations approved the dissemination of the study invitation via their membership.

The study was also advertised through email invitations of our investigators' collegial networks and social media sites (Facebook and Twitter). Facebook group members ranged from 707 to 50,000. A snowball sampling strategy was used, where on completion of the survey, each participant was invited to forward the study information to eligible others. When participants accessed the survey link, they were prompted to provide consent prior to starting the survey.

Data collection

Two surveys (CRC survivor and GP) were administered online using REDCap between 10 March 2021 and 31 October 2021. Participant demographics (Tables 1 and 2), practice information (Table 2), experiences of CRC survivorship care in the community, care gaps and ways to improve care (Supplementary Appendix A) were examined. The investigators developed the questionnaire, guided by the domains of enquiry presented in Supplementary Appendix A. The survey was pilot tested by consumer and GP investigators, and underwent multiple iterations to ensure contextual appropriateness and readability. A mock interview was conducted with a GP investigator to assess the suitability of the interview questions. Interviews were conducted via in-person, telephone or Zoom, based on participants' preferences. GP interview participants were provided with financial reimbursement for their practice time.

Data analysis

Survey analysis

Statistical analysis was performed using SPSS Statistics for Windows (ver. 22.0, IBM, Armonk, NY, USA). Descriptive statistics summarised demographic, clinical and service provision data. Frequencies of survey question responses for closed-ended questions were descriptively reported. Free text responses to open-ended questions were thematically analysed together with the interview data, as described below.

Interview analysis

Audio recordings were not transcribed verbatim, but interpreted through direct listening and note-taking, following Halcomb and Davidson (2006)'s six-step approach. The researcher (BK) repeatedly listened to the recordings, and scribed key points (codes) of participants' narratives (typically for each one or two sentences) and exemplar phrases. BK also documented contextual details of participants' experiences (e.g. participants' practice environment) and non-verbal cues (e.g. participant expressing frustration). Key codes were identified and grouped into themes, which were reviewed considering differences and similarities across participants. A second reviewer (LA) verified the codes by listening to the

Table 1. Demographic and clinical characteristics of CRC survivor survey participants.

Characteristic	n = 51 (%)
Age (years)	
30–39	9 (17.6)
40–49	12 (23.5)
50–59	17 (33.3)
60–69	7 (13.7)
≥70	6 (11.8)
Sex	
Female	40 (78.4)
Male	11 (21.6)
Cancer location at diagnosis	
Colon	37 (72.5)
Rectum	11 (21.6)
Anus	1 (2.0)
Not sure	2 (3.9)
Cancer stage at diagnosis	
Stage 1	2 (3.9)
Stage 2	6 (11.8)
Stage 3	31 (60.8)
Stage 4	9 (17.6)
Not sure	3 (5.9)
Treatment received	
Surgery	51 (100)
Chemotherapy	43 (84.3)
Radiotherapy	9 (17.6)
Immunotherapy	2 (3.9)
Other	1 (2.0)
Treatment received as part of clinical trial	
Yes	3 (5.9)
No	48 (94.1)
Cancer recurrence since treatment completed	
Yes	6 (11.8)
No	45 (88.2)
Living arrangements	
Live alone	5 (9.8)
Live with partner	37 (72.5)
Live with other	9 (17.7)
Access to family/friends for support	
Good access	36 (70.6)
Some access	12 (23.5)
No access	3 (5.9)

audio recordings, as well as the provisional and final themes. Discrepancies were discussed and revisions agreed upon between two reviewers.

Table 2. Demographic characteristics of GP survey participants.

Characteristic	n = 19 (%)
Sex	
Female	14 (73.6)
Male	5 (26.3)
Current role	
General practitioner	15 (78.9)
General practitioner registrar	3 (15.7)
Other ^A	1 (5.2)
Years of practice in the current role	
1–5	7 (36.8)
6–10	0 (0)
11–15	5 (26.3)
16–20	3 (15.7)
>20	4 (21.0)
Work pattern	
Full time	7 (36.8)
Part time	12 (63.1)
Estimated number of CRC patients seen each year	
0–5	12 (63.1)
6–10	5 (26.3)
11–15	1 (5.2)
>15	1 (5.2)

^AColorectal survivorship physician.

Ethics approval

Ethics approval was obtained from the University of Sydney Human Research Ethics Committee, Project No: 2020/851, prior to study commencement. All participants provided informed written consent to take part in the study.

Results

Survey participant characteristics

Survey responses were obtained from 51 CRC survivors and 19 GPs. CRC survivor participants were predominantly female ($n = 40$, 79%) and younger than the average CRC survivor ($n = 21$, 41% aged <50 years; Table 1). Free text survey responses are presented in Supplementary Appendix B. Of the GP participants, 37% ($n = 7$) had practiced as a GP for 1–5 years, and 21% ($n = 4$) for >20 years. Most GPs ($n = 12$, 63%) saw fewer than five CRC survivors per year (Table 2).

Survey results from the CRC survivors

Most CRC survivor participants ($n = 40$, 78%) had a regular GP or practice prior to their cancer diagnosis, and the

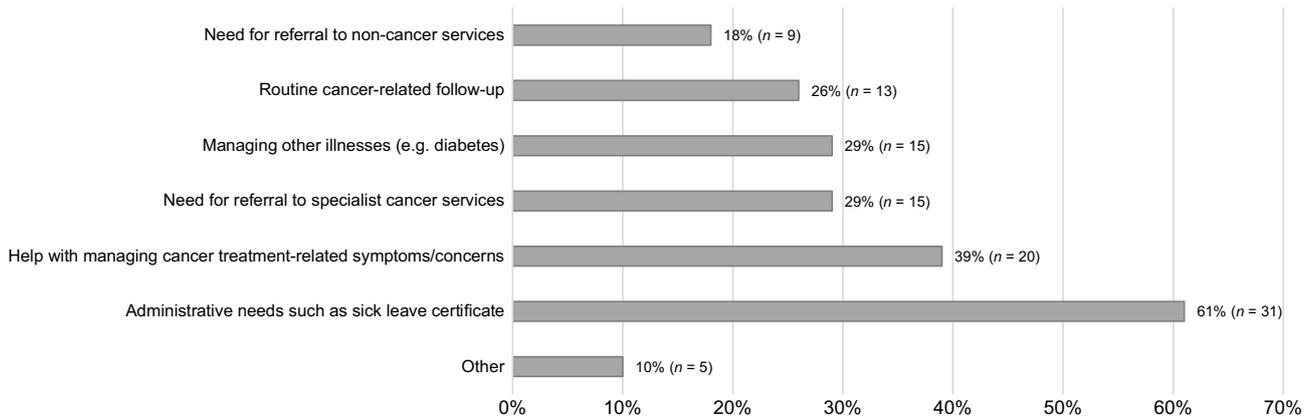


Fig. 1. The most common reasons for CRC patients to see a GP after cancer treatment (participants could select more than one response).

majority ($n = 31, 61\%$) continued to visit the same GP or practice after diagnosis. The common reasons for seeing the GP post-treatment are summarised in Fig. 1. Half ($n = 28, 55\%$) reported their GP asked about their cancer recovery when they saw them for non-cancer related reasons. The types of care received when they saw the GP for managing cancer-treatment related concerns are presented in Fig. 2.

When sequelae of treatment were experienced, 39% of CRC survivor participants ($n = 20$) consulted their GP first, followed by their medical oncologist ($n = 10, 20\%$), cancer nurse specialist ($n = 5, 10\%$), surgeon ($n = 4, 8\%$) or community nurse ($n = 1, 2\%$). Participants also accessed written and online information ($n = 16, 31\%$), sought advice from peers ($n = 15, 29\%$) or learnt to manage their sequelae through trial and error ($n = 13, 26\%$).

Fig. 3 illustrates that participants experienced a wide range of sequelae of CRC treatment, which they did not always discuss with their GPs, as well as those sequelae that GPs routinely assessed during consultation. CRC treatment had

a negative impact on survivors’ overall wellbeing, as almost half of survivor participants reporting emotionally not feeling as healthy/stable as they used to be as a result of treatment ($n = 25, 49\%$), having to reduce their paid/volunteer work ($n = 21, 41\%$), and experiencing financial burden from out-of-pocket expenses for managing sequelae of treatment ($n = 20, 39\%$). Less common treatment-related impacts were described as inability to participate in social activities as they used to ($n = 14, 27\%$) and altered relationships with loved ones ($n = 12, 24\%$). Only six (12%) responded that their cancer treatment did not impact on their overall health or wellbeing.

As illustrated in Fig. 3, survivor participants did not always raise the issues they experienced with their GP. Most survivor participants ($n = 41, 80\%$) found it difficult to discuss certain concerns with their GP, such as sexual and intimacy concerns ($n = 17, 33\%$), psychological or emotional concerns ($n = 11, 22\%$), feelings of isolation ($n = 10, 20\%$), cognitive issues ($n = 9, 18\%$), and financial concerns ($n = 6, 12\%$).

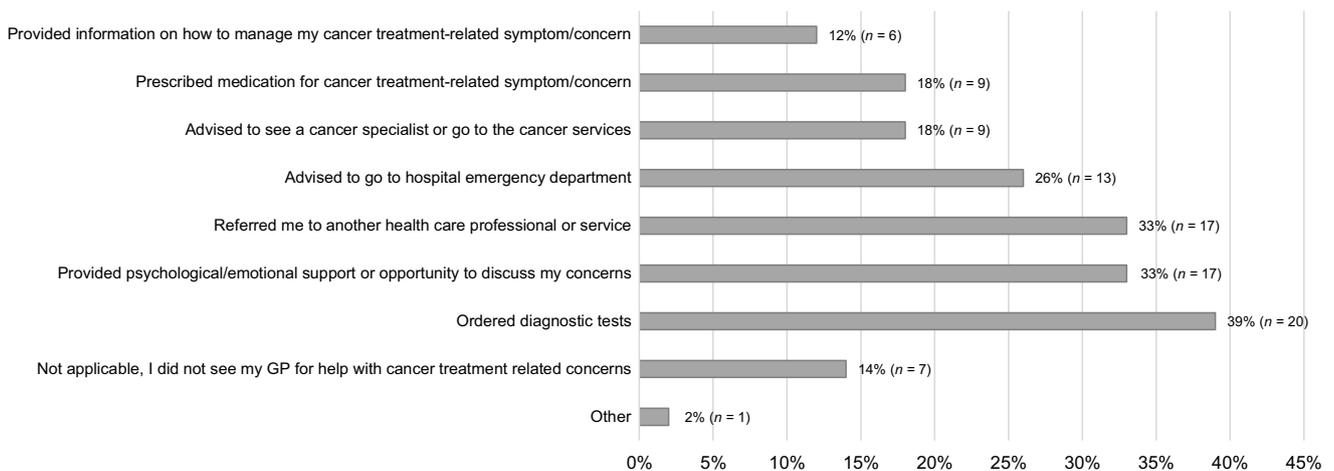


Fig. 2. The types of care provided by GPs when CRC survivors consulted for managing treatment sequelae (participants could select more than one response).

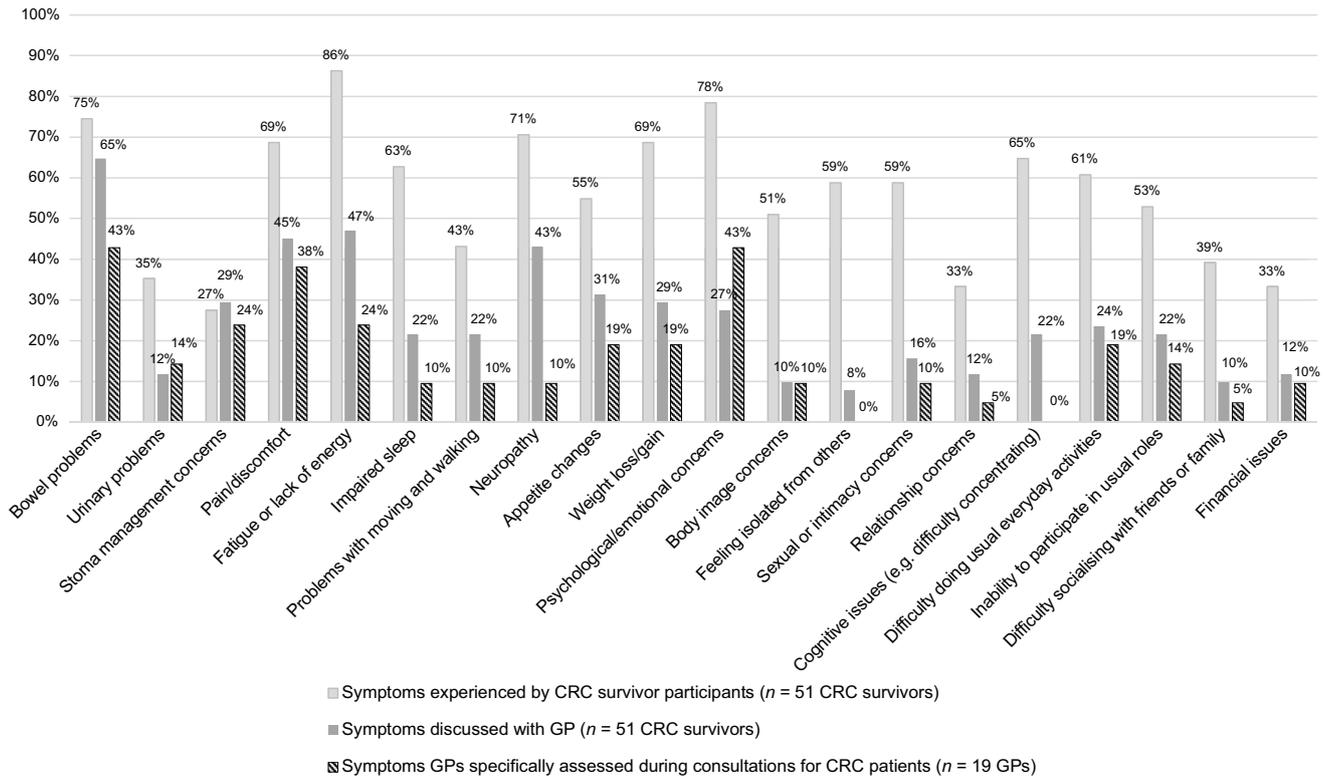


Fig. 3. Treatment sequelae experienced by CRC survivors and degree of disclosure with their GP, and the assessment of sequelae by GPs.

Common reasons for not discussing post-treatment concerns were their perception that not much could be done to help ($n = 17, 33\%$), and the cancer specialist had informed them that the problem would gradually improve ($n = 15, 29\%$). Other less common reasons were their perception that their concerns were minor ($n = 12, 24\%$), feeling awkward or embarrassed ($n = 12, 24\%$), or lacking confidence to raise certain concerns ($n = 12, 24\%$), feeling that their concerns were too sensitive or personal ($n = 11, 22\%$), or thinking that the GP would not be able to help ($n = 10, 20\%$). A small proportion of participants ($n = 6, 12\%$) reported that they did not raise a concern or issue they were experiencing with their GP, because they felt that their GP seemed disinterested or hurried. Half of participants ($n = 26, 51\%$) felt more comfortable discussing sensitive concerns if the GP brought it up.

Half of the survivor participants ($n = 25, 49\%$) believed that their GPs had ‘some’ understanding of the sequelae of CRC treatment, with slightly fewer ($n = 16, 31\%$) feeling that their GPs had a ‘good’ understanding. Approximately one-third of the survivor participants felt that their GPs had a good ($n = 18, 35\%$) or some ($n = 19, 37\%$) knowledge of available services, resources and other local health care professionals to refer to.

Almost half ($n = 26, 51\%$) of participants were ‘satisfied’ with the help or support they received from their GPs.

However, a further 37% ($n = 19$) were only somewhat satisfied or not at all satisfied with their care (11%). Almost half ($n = 25, 49\%$) felt that GPs should be their main health care provider to coordinate follow-up care post-cancer treatment. Few participants considered that cancer specialists ($n = 6, 12\%$) or nurses ($n = 2, 4\%$) should fill this role.

Survey results from the GPs

Half of GPs ($n = 10, 53\%$) were involved in their CRC patients’ diagnosis and referral to specialist cancer services. Most commonly, GPs received information back from cancer treatment services about their patients after CRC treatment in letters from the surgeon or medical oncologist ($n = 19, 100\%$) and discharge summaries ($n = 12, 63\%$). Almost half felt that the information they received was insufficient ($n = 9, 47\%$) and received in a somewhat timely ($n = 7, 37\%$) or untimely ($n = 4, 21\%$) manner. Common methods for exchanging information with the hospital or specialist cancer services were via fax ($n = 9, 47\%$) and telephone ($n = 7, 37\%$). Only two GPs (11%) used electronic medical records to communicate with these services.

GPs reported that after completing treatment, CRC survivors most typically consulted them for help managing comorbid conditions ($n = 10, 53\%$), medical certificates or prescriptions ($n = 10, 53\%$), psychosocial care ($n = 9,$

47%), preventative health care, such as immunisations/periodic health assessments ($n = 9$, 47%), and management of side-effects from cancer treatment ($n = 8$, 42%). Less than half of GPs reported that they specifically asked their CRC survivors about post-CRC treatment concerns (Fig. 3). GPs considered that they were least equipped to manage sexual, intimacy or relationship concerns ($n = 6$, 32%), stoma-related concerns ($n = 5$, 26%) and financial issues ($n = 5$, 26%).

The usual actions GPs took when survivors reported CRC treatment sequelae were referring CRC survivors to a medical specialist, acute care hospital or cancer specialist ($n = 10$, 53%); ordering investigations, such as pathology and radiology ($n = 8$, 42%); prescribing medications ($n = 6$, 32%); providing psychosocial support ($n = 6$, 32%); and seeking advice or information from the cancer nurse specialist at the cancer services ($n = 6$, 32%). When seeking information or identifying appropriate local services to help survivors manage sequelae of treatment, GPs primarily relied on their professional expertise and prior knowledge of CRC survivorship care ($n = 8$, 42%), reviewed the discharge letter ($n = 6$, 32%), contacted specialist cancer services or asked a colleague ($n = 5$, 26%), or utilised HealthPathways ($n = 4$, 21%).

Interview participant characteristics

Four female GPs aged between 30 and 69 years, working part-time in metropolitan practices with 4–38 years of experience seeing between 2 and 10 CRC patients each year participated in interviews. In addition, 11 GPs provided free text responses in the survey. Key themes from all qualitative data are described below.

Qualitative findings from the GPs

Perceived role of GPs in CRC survivorship care

Most GP participants spoke about their perceived role in CRC survivorship care. They felt that GPs should be the main care provider for CRC survivors because of their holistic approach to a person's health, such as relationships with significant others, mental health and general medical issues.

So much of general practice is the whole person, we are usually pretty skilled and thorough in checking in on how people are across a range of domains. (GP3 60–69 years, 40 years' practice experience, metropolitan area)

Some GP participants emphasised their role in educating CRC survivors and providing ongoing care, such as medication prescriptions, referrals to other services and follow-up monitoring of survivors' health.

[GP's role plays] a huge part, I find people are unclear about the red flags they should be looking out for and so

[GPs] educate them regarding this. (GP4 50–59 years, 20 years' practice experience, metropolitan area)

However, despite this view, Some GP participants also expressed that they were often not viewed as an integral part of CRC patients' survivorship care, and their role should be better acknowledged by both CRC survivors and cancer specialists.

Trust [is needed] by the specialist team that we are sufficiently skilled and that we will do it [provide appropriate care], and also by the patient [CRC survivor] that we are the appropriate person on their team, so they come to us for support, not the specialist team as a starting point. (GP survey respondent 3, 50–59 years, 24 years' practice experience, metropolitan area)

System barriers for effectively monitoring and managing CRC treatment sequelae

According to some GP participants, CRC survivors typically consulted GPs for specific issues, which may or may not have been related to CRC, with consultations primarily centred around the presenting complaint.

You wouldn't focus on the cancer unless there was a specific issue associated with the cancer ... once the treatments [are] done and dusted, it's quietly in the past history. (GP1 60–69 years, 30 years' practice experience, metropolitan area)

Most GP participants raised concerns about being pressured to limit consultation time to make bulk billing more financially viable for their practice and make it affordable for their patients. Shorter consultations made it difficult to address complex care needs.

There's a lot of pressure on general practice to bulk bill ... and people [patients] want to be bulk billed, but it's really hard to provide a viable general practice ... because the amount that Medicare pays to bulk bill a consultation ... that's just the kind of cold, hard facts, really ... it's a luxury to spend 15 or 20 minutes with the patient. (GP2 30–39 years, 4 years' practice experience, metropolitan area)

One GP participant spoke about seeing their CRC patient monthly post-treatment, and providing comprehensive assessment and support for psychosocial, cognitive, sexual health and financial aspects. However, they acknowledged that this was time that was not financially compensated, ultimately making it an unfeasible model.

There's probably other issues, which is the way that general practice is structured ... it's very difficult to do

the work ... that [current funding model] necessitates doing 15-minute appointments all day, which means you can't deal with the psychosocial complexities of post-cancer care in 15 minutes. (GP2 30–39 years, 4 years' practice experience, metropolitan area)

Transfer of information from cancer services upon treatment completion

Most GP participants discussed difficulty receiving sufficient information from the cancer services upon treatment completion. Contacting them to seek omitted information was time-consuming.

So, if they [CRC survivors] had a lengthy hospital admission and it's written by the internal resident, they are diligent ... if not, then we tend to have to chase things up and it's very difficult to track down the right person to call to get more information. (GP3 60–69 years, 40 years' practice experience, metropolitan area)

One GP participant expressed that good handover of information post-CRC treatment would improve their ability to provide CRC survivorship care.

If we get a good discharge summary with details of what we need to do, we'll set reminders in the system ... and take over from there and prompt the patient to come back ... but we need that initial handover of what's needed. (GP4 50–59 years, 20 years' practice experience, metropolitan area)

Untimely transfer of information was also a barrier for some GP participants to enable optimal care.

Correspondence comes well after I see the patient to discuss [with the CRC survivor] 'what the specialist said', so I am dependent on what patient recalls. (GP survey respondent 13, 40–49 years, 17 years' practice experience, metropolitan area)

Most GP participants wished to have more detailed information about their CRC survivor patients' clinical information, including medical history, metastatic sites, treatment received, and any complications or services used during treatment and key test results. They wished to have timely information transfer, ideally through a shared medical record.

So, the most helpful thing is always gonna be what's happened to the person [CRC survivor]? What are their primary needs from us as the GP [such as] what do we need to follow up? What do we need to arrange and how to arrange those things ... so we can pick up where [they] left off. (GP4 50–59 years, 20 years' practice experience, metropolitan area)

Several GP participants also wished to have contact details of the key health care providers at the hospital to avoid spending time finding the person with specific information they sought.

You don't have that [time] ... You can't adequately do people's care in that time frame, so the more information we [GPs] get and the clearer it is, the better ... And it's not a difficult task [to provide the information] if they already ... have the contact details ... We [GPs] are always happy to coordinate care, but it helps to have all the details and to know exactly what happened. (GP3 60–69 years, 40 years' practice experience, metropolitan area)

Identifying the suitable services and resources

Some GP participants found it difficult to locate publicly funded, locally available support services and resources for their CRC survivors. Considerable time and effort were required to search through information online.

However, one GP participant described a somewhat different experience where they accessed information on locally available services through accessing their local HealthPathways, an Australian Web-based repository of localised care pathways and clinical resources for GPs in their local health district (eHealth n.d.). For this GP, HealthPathways was their main source for finding referrals in each local health district. This GP mentioned that despite its usefulness, it was not extensively used in general practices, and suggested that the time since GP training could be an influencing factor.

The tricky thing for a GP is knowing what's there. So HealthPathways is the main area for all ... You'll go in and type in ... incontinence and go to the bowel section ... and go OK, what's here? What suggests the next flow pathway for this and what referral services are there? ... If you're more recently trained, we know about HealthPathways ... older GPs [who trained earlier] might not know about it or use it as much. (GP2 30–39 years, 4 years' practice experience, metropolitan area)

Discussion

This study examined the experiences and opinions of CRC survivors and GPs regarding survivorship care in the community setting. Notably, the main gaps identified included a lack of mechanisms to effectively identify CRC treatment sequelae impacting health-related quality of life, a gap in information transfer from cancer services to general practices upon treatment completion and a relative lack of remuneration for longer consultations in general practices, necessary for comprehensive monitoring and management of CRC sequelae.

Consistent with a previous study (Rutherford *et al.* 2020), our survey demonstrated that CRC survivors commonly experienced a range of treatment sequelae. However, many of these were under-discussed with their GP, despite the impact on daily life and the role GPs could have played. Survivors also reported only half of their GPs asked about their cancer recovery when they consulted them for other non-cancer-related reasons. Similarly, although a small sample size, our GP survey also found less than half of GPs asked their CRC survivors about concerns relating to CRC sequelae. GPs are likely aware that CRC survivors have difficulty raising survivorship care-related concerns. However, GPs' own discomfort and lack of access to tangible support (Virgo *et al.* 2013), compounded by workload constraints (Leysen *et al.* 2019), likely mean that they are reluctant to proactively initiate a discussion with their CRC patients on these topics.

Consistent with a previous study (Fox *et al.* 2022), time constraints and workload were key barriers reported by the GP participants in delivering optimal CRC survivorship care. Some GPs further explained that the relative lack of remuneration for longer consultations prevented comprehensive monitoring and management of CRC sequelae. This highlights gaps between the time and resource requirements for optimal CRC survivorship care and the current funding model in general practice settings. A system-level effort is necessary to bridge this gap by ensuring adequate funding for GPs to carry out essential activities required to meet the complex needs of CRC survivors.

Various tools and strategies should also be actively evaluated to ensure efficient care to address resource constraint issues. Tools, such as patient-reported outcome measures (Greenhalgh *et al.* 2018) and question prompt lists (Terrasson *et al.* 2022), could be utilised to encourage CRC survivors to reflect on their health-related concerns prior to their GP consultations for discussion. In particular, patient-reported outcome measures can organise issues into dimensions, such as physical, emotional and cognitive functioning, and easily show areas needing intervention or further discussion (Greenhalgh *et al.* 2018).

Consistent with a study conducted by Salz *et al.* (2012), GPs in this study desired more detailed and timely transfer of information from cancer services, including treatment details, contact details of relevant health care providers and, where appropriate, services for managing likely CRC survivorship issues. This is also a recommended practice put forward by the Optimal Care Pathway for People with CRC in Australia (Cancer Council Victoria and Department of Health Victoria 2021). CRC treatment has evolved over the past two decades, with treatment becoming more complex and multimodal. This has resulted in survivors experiencing more varied sequelae of treatment (Brouwer *et al.* 2018), making information transfer from cancer services even more critical. Improving information transfer from tertiary care could also reduce unpaid work in general practices stemming from chasing discharge summaries,

treatment plans and locating relevant cancer care providers' contact details, thus promoting efficient care.

Strengths

This study draws attention to CRC survivorship care gaps in general practice settings, and highlights system barriers and possible solutions that warrant further exploration. Despite the growing need to manage various CRC treatment sequelae (Lim *et al.* 2021), along with the recognition of a vital role of GPs for this care (Nekhlyudov *et al.* 2017), there has been limited research to understand the current state of CRC survivorship care in general practice settings. This study makes an important contribution to the current literature by filling this gap, and calls for further investigation into effective ways of meeting the care needs of CRC survivors in Australia.

Limitations

Our surveys and interviews were conducted with a small sample of GPs who may not be representative of all GPs. Recruitment for this study occurred during the COVID-19 pandemic when GPs were under greater than usual pressure. Additionally, the study used convenience sampling to recruit both CRC survivors and GPs, which means that the findings might not be representative of all CRC survivor and GP perspectives. The data collected in this study are intended to provide exploratory findings to generate future research directions and draw attention to some of the key challenges in CRC survivorship care in general practice settings.

Future research

Future research would benefit from larger and more diverse participant samples for generalisation of the findings pertaining to care gaps and feasibility of potential strategies to address these gaps. In particular, further research is required to explore the compatibility of various evidence-based tools to enhance care efficiency, such as patient-reported outcome measures (Greenhalgh *et al.* 2018) and question prompt lists (Terrasson *et al.* 2022), to facilitate efficient monitoring of possible CRC treatment sequelae. Mechanisms to increase the utilisation of existing services and resources, such as HealthPathways, to facilitate the management of CRC sequelae should be explored. Finally, future studies on the GP-coordinated care model for CRC survivorship requires evaluation of GPs' workload and funding model for feasible and sustainable practice change, as also proposed by Duineveld *et al.* (2019).

Conclusion

General practice plays an important role across the whole cancer survivorship care continuum, as GPs can routinely

detect and manage a range of physical, psychological and practical impacts of cancer treatment. Survivorship care for individuals with CRC can be improved through better information transfer from cancer services with GPs and mechanisms to comprehensively monitor treatment sequelae. The funding models for general practice need to be evaluated to align with the growing population and needs of CRC survivors in the community.

Supplementary material

Supplementary material is available [online](#).

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Data availability. The data that support this study cannot be publicly shared due to ethical or privacy reasons, but may be shared upon reasonable request to the corresponding author if appropriate.

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