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Understanding variation in men's help-seeking for cancer symptoms: A semi-structured interview study

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Abstract

Men appear more likely to delay seeking medical advice for cancer symptoms, resulting in later stage at diagnosis and poorer health outcomes. Limited research has investigated variation in men's experiences of and responses to cancer symptoms. This study examined the psychosocial aspects of men's help-seeking for cancer symptoms, as well as potential variation across men residing in urban and rural Australia. Semi-structured interviews were conducted with men recently diagnosed with cancer (n=13). Participants' partners (n=8) were recruited to enable data triangulation. Interview schedules addressed participants' pathway to cancer treatment, cancer knowledge, masculinity, and rural living. A theoretical thematic analysis approach was used. Medical help-seeking behaviour was similar for participants residing in urban and rural areas. Five key themes and one sub-theme were identified, including: symptom factors, traditional masculine norms (sub-theme: women's health-related responsibilities), level of concern, conflicting responsibilities and access, and trust in medical professionals. Participants from rural Australia experienced greater access difficulties and noted optimism regarding symptoms. Results highlight important within-gender differences in the psychosocial barriers to help-seeking for cancer symptoms. Future research should further explore variation between men and test the predictive strength of factors.

Keywords: cancer, oncology, help-seeking, gender, rural health

Introduction

The argument for early detection and diagnosis of cancer has been growing in momentum, with increasing evidence that it can be important for improving survival rates and health outcomes (Etzioni et al., 2003; Neal et al., 2015). Early detection of cancer requires that a tumour be in situ or localised, and has not spread throughout the body (Etzioni et al., 2003). Some cancers (e.g., colorectal, melanoma, head and neck) present with early symptoms that may signal to health practitioners that further investigation is warranted. Symptoms may appear as minor or severe bodily changes, for example, persistent unexplained pain or fatigue, unexplained bleeding, persistent unexplained cough, or a change in the appearance of a mole (Power & Wardle, 2015). Symptom attribution may be difficult for the general population because symptoms differ according to cancer site and can also be associated with multiple health problems, including minor ailments. However, the onus is not on individuals to diagnose a condition, but on medical professionals through consultation (Scott & Walter, 2010). Cancer organisations recommend that individuals seek medical advice promptly after noticing a cancer warning sign (Cancer Council Australia, 2017; Cancer Research UK, 2017).

Globally and within Australia, there is evidence of gender differences in cancer mortality rates and medical help-seeking behaviour. Men are more likely than women to die of non-sex specific cancers internationally, including lung, stomach, liver, oesophageal, and blood cancers (International Agency for Research on Cancer, 2017). Likewise, with respect to the leading causes of death in Australia, men are more likely than women to die of non-sex specific cancers such as skin, lung, blood, and lymph cancers (Australian Bureau of Statistics (ABS), 2016). This may be due, in part, to delayed help-seeking and associated diagnostic delay (Evans, Brotherstone, Miles, & Wardle, 2005), with Australian men less likely than

women to seek services from a General Practitioner (GP) across all age groups (ABS, 2012; Bayram, Valenti, & Britt, 2016).

In addition to the already lower rates of help-seeking among Australian men, those residing in rural areas of Australia are less likely to access health services (i.e., diagnostic and treatment services) and have poorer cancer outcomes than those in urban areas (Australian Institute of Health and Welfare (AIHW), 2012; Baade, Youlden, Coory, Gardiner, & Chambers, 2011; Schlichthorst, Sanci, Pirkis, Spittal, & Hocking, 2016). For example, among Australian men, increased remoteness has been associated with increased mortality from lung, prostate, and colorectal cancer, as well as cancers of unknown primary sites (AIHW, 2012). This pattern of results is likely to be influenced, in part, by the considerable distances between some rural areas of Australia and GP services. For instance, a number of rural areas in South Australia are greater than 320 kilometres (199 miles) distance to the nearest GP service (Bamford & Dunne, 1999).

Health education interventions are often aimed at increasing early detection behaviour in the general population by increasing cancer knowledge. Research suggests that cancer awareness interventions may increase knowledge, but there is limited evidence to suggest such knowledge prompts help-seeking (Austoker et al., 2009). Many factors underpin health behaviours and increasing knowledge alone may be insufficient to change maladaptive behaviours, such as delayed help-seeking (Glanz & Bishop, 2010). Further exploration of the underlying psychosocial factors that influence help-seeking behaviour is required to inform the design of effective cancer prevention interventions.

Several psychosocial barriers to men's medical help-seeking have been highlighted by international research. For instance, misinterpretation and minimising of symptoms (Braybrook, Witty, & Robertson, 2011; Fish, Prichard, Ettridge, Grunfeld, & Wilson, 2015; Yousaf, Grunfeld, & Hunter, 2015), and strong negative emotions (e.g., embarrassment and

fear, Fish et al., 2015; L. Smith, Pope, & Botha, 2005; Yousaf et al., 2015) appear to be important barriers to men's medical help-seeking. In addition, traditional masculine norms have been associated with delayed help-seeking for cancer symptoms and other health issues (Braybrook et al., 2011; Fish et al., 2015; L. Smith et al., 2005; Yousaf et al., 2015).

Masculine role socialisation models posit that cultural norms associated with maleness can negatively affect men's health when endorsed and performed (Addis & Mahalik, 2003; Courtenay, 2000). Dominant masculine norms relevant to help-seeking include self-reliance, emotional control and stoicism, appearing physically strong, invulnerability, and risk-taking (Courtenay, 2000).

The psychosocial variables that influence men's help-seeking within Australian contexts are currently not well understood. Differences in cancer incidence and help-seeking between urban and rural environments may be due to aforementioned access difficulties, as well as cultural factors. These include occupational differences, unique attitudes towards health and help-seeking found among people living in rural areas (Emery et al., 2013; Fennell et al., 2017), and hegemonic rural masculinity (Alston & Kent, 2008; Courtenay, 2000). In the case of the latter, conformity to dominant rural masculinity positions men as hard working, physically tough, self-reliant, and stoic (Alston & Kent, 2008). These normative factors are incongruent with help-seeking behaviour, which involves communicating a problem to another individual and relying on them for assistance (Addis & Mahalik, 2003).

Despite the breadth of barriers to help-seeking identified above, to date, research into help-seeking for cancer symptoms among Australian men has been conducted with a narrow focus. Studies have explored help-seeking for specific cancer sites (Carbone, Arthur Walker, Burney, & Newton, 2009; Oberoi, Jiwa, McManus, Hodder, & de Nooijer, 2016) or sub-cultural contexts (Adams, Collins, Dunne, de Kretser, & Holden, 2013; Emery et al., 2013). Consequently, variation in men's health-related behaviour has been seldom addressed,

despite the fact that men's experiences of medical help-seeking are likely to differ across health and cultural contexts (Addis & Mahalik, 2003; Oliffe, 2009). For example, Emery et al. (2013) and Fennell et al. (2017) found aspects of rural identity, including optimism, stoicism, machismo, and self-reliance contributed to rural men's delayed help-seeking. However, conclusions were limited in these studies as direct comparisons between urban and rural men were not conducted. Broadening eligibility criteria would importantly allow for an exploration of the influence of symptom type, cancer type, and cultural context on men's medical help-seeking. Comparative research is required to validate context-specific barriers and for the design of widely effective men's health interventions (J. Smith, 2007).

Current study

This study purposively sampled men from urban and rural South Australia to investigate self-reported psychosocial influences on help-seeking for cancer symptoms according to area of residence. Participants' partners were also recruited to provide further insight into the cancer experience and previous help-seeking behaviour, providing some evidence of convergent validity. To the best of our knowledge, this is the first Australian study to use broad diagnostic eligibility criteria, and to directly compare urban and rural cohorts, building upon the research of Emery et al. (2013) and Fennell et al. (2017). By understanding within-gender variation in men's help-seeking, and in particular the role of rural living, it is possible to design and implement targeted cancer prevention interventions within Australia and internationally. Following this, early detection practices may be improved leading to increases in cancer survival rates. The research questions were: 1) which psychosocial influences are important to men's help-seeking for cancer symptoms, and 2) do men from urban and rural Australia experience and respond to cancer symptoms differently?

Method

This study is part of a larger multi-method research project exploring men's help-seeking for cancer symptoms, which takes an ontological and epistemological position of scientific realism (Madill, Jordan, & Shirley, 2000). As such, even within a qualitative research study, objectivity and reliability have been prioritised as much as possible (Madill et al., 2000). A qualitative paradigm was chosen for this study because qualitative research allows for greater examination of the impact of context (Braun & Clarke, 2013), which was deemed important for answering the research questions. This study uses a qualitative descriptive approach as described by Sandelowski (2000). This approach is recommended for multi- and mixed-method research projects, as well as projects that are connected to and guided by relevant literature (Neergaard, Olesen, Andersen, & Sondergaard, 2009).

Procedure

Appropriate ethical approval was obtained prior to study commencement. Purposive sampling was used; men recently diagnosed with cancer (referred to as participants throughout) were recruited because of their firsthand experience with cancer and medical help-seeking. This also enabled the exploration of recollected help-seeking, rather than anticipated help-seeking. Recruitment occurred in urban and rural areas to allow for a direct comparison between groups. The majority of participants were residing in South Australia when help-seeking for cancer symptoms, with two participants seeking medical advice in the Northern Territory. Therefore, the study largely reflects men's experiences of help-seeking within a mixed public-private healthcare system in South Australia.

Participants' partners were recruited to facilitate data triangulation and provide some evidence of convergent validity. Behavioural confirmation by others is particularly important when the circumstances being recalled are highly stressful, as in the case of a cancer diagnosis. Under these circumstances participants may not remember their experience accurately. Existing research also indicates that some men have difficulty with personal

disclosure (Yousaf et al., 2015), and consequently, including participants' partners allowed for a better understanding of participants' help-seeking. Eligibility criteria included: being aged 18 years or older and having the ability to read and speak fluent English. In addition, men were eligible for inclusion if they had received a cancer diagnosis within the last 12 months. The diagnostic time period (12 months) was selected in order to ensure an accurate recollection of pathway to treatment. A broad diagnostic eligibility criterion was used to allow for any similarities or differences across symptoms and cancer types to be identified.

A community-based sampling strategy was used to facilitate the inclusion of a diverse range of cases from both urban and rural areas and to increase external validity. Men's health (i.e., Freemasons SA/NT) and cancer organisations (i.e., Cancer Council SA, Cancer Voices SA, Cancer Care Centre) were the main avenues for recruitment. Strategies for promotion of the study included: social media sites (e.g., website, Facebook, Twitter, community noticeboards), email distribution through targeted organisations, advertising in print media, information sharing through oncology social workers at Cancer Council SA, and study press releases. In addition, participants were encouraged to share study details in an attempt to benefit from snowball sampling. Following data saturation, a further three participants were recruited to ensure no new themes emerged.

Data collection methods & data collection instruments

Semi-structured interviews were used to investigate men's experiences with medical help-seeking. Potential participants contacted the principal researcher (JF) directly or via oncology social workers, and were then screened via telephone according to eligibility criteria. Eligible participants were invited to participate in a one-on-one interview with the principal researcher, a female PhD candidate with training in counselling and behavioural science. Participants were provided with multiple opportunities to provide and withdraw informed consent.

The interview schedule contained two distinct but related parts: a) a request for participants to share their pathway to cancer treatment in their own words, and b) follow-up questions guided by previous research (Fish et al., 2015) (See Table 1 for example interview questions). It was anticipated that the outsider status of the interviewer (i.e., a young female researcher interviewing older male participants) would influence the responses of participants. Accordingly, gender and masculinity were explicitly and purposely investigated towards the end of the interview. The age and female gender of the interviewer may have also influenced participant comfort in discussing their health and bodily changes. Strategies to reduce the likelihood of discomfort included using open-ended questions and actively demonstrating empathy and sensitivity during interviews (Elmir, Schmied, Jackson, & Wilkes, 2011). To increase the accuracy of recall, a calendar land-marking technique was used (Mills et al., 2014). The interviewer noted the participant's experience on a calendar during interviews, and asked about personal and public events that occurred at the time. This technique is used primarily to increase accuracy of recall, but also results in useful contextual information to increase the interviewer's understanding of the experience. The interview schedule was modified for participants' partners who were asked to recall their partner's cancer experience in detail and to discuss their own cancer knowledge. The interview schedule was used as a guide and questions were omitted if they were already addressed by the participant or were not relevant. Couple dyads were interviewed separately in the majority of cases; two pairs of individuals were interviewed together at the request of the cancer survivor.

Two pilot interviews with men affected by cancer were conducted in March 2015 to test the usefulness of the interview schedule. Minimal changes were made and, consequently, one of the pilot interviews was included in the study (with permission). The other pilot interview participant did not meet eligibility criteria. All interviews except one were

conducted in-person. The exception was conducted over the telephone. In this instance, the participant had been posted a copy of the calendar to refer to during the interview. Interviews were conducted over a six month period. All interviews were audio recorded and transcribed verbatim. Participants were invited to read their interview transcript and were given the opportunity to ask for certain sections or for the whole interview to be omitted from the study. Twelve participants requested to review their transcripts, with none requesting modifications or omissions.

Data processing and analysis

Patient intervals (n=9) were calculated from the date of first symptom until first presentation to a clinician. Although patient intervals could not be calculated for asymptomatic cancer survivors (n = 4), they were included in analyses because they provided diversity in perspectives about men's medical help-seeking. In this study, prompt help-seeking was defined as seeking medical advice within two weeks of noticing a cancer symptom, in line with recent research (Quaife et al., 2014).

Qualitative data were coded and analysed using NVivo 11. Data analysis followed a theoretical thematic analysis approach (see Table 2, Boyatzis, 1998; Joffe, 2011), in which analysis was predominantly deductive, and guided by theory, previous research, and researcher knowledge (Braun & Clarke, 2013). This approach was deemed the most suitable by the research team because a literature review completed by the principal researcher prior to the design of the study was used to facilitate theme identification (Joffe, 2011). Following initial coding of the data set by the principal researcher, a coding frame was developed based on previous research (Fish et al., 2015), social science theory (i.e., masculine role socialisation, Courtenay, 2000), and some inductive content analysis.

Reliability of the coding frame was tested by calculating coding inter-rater reliability. Approximately one-third of the interview transcripts were coded by the principal researcher

and an independent female research associate (project officer and PhD candidate in behavioural science). The average Kappa coefficient was .60, indicating a moderate level of agreement (Landis & Koch, 1977). The statistic appeared overly sensitive to the coders. Coding sensitivity differed between researchers (i.e., variance in size of codes), and the researchers had selected different data to highlight the same code within a data item. There were also some discrepancies in coding, which were likely due to the greater familiarity of the principal researcher with the coding frame and research topic. The coding frame was refined through discussion. Complete coding of the dataset and subsequent thematic analysis was conducted by the principal researcher. To minimise potential coding bias due to researcher familiarity with the interview topic and personal engagement with participants, coding and emerging themes were discussed at length with the remaining authors who possessed extensive knowledge in health psychology and postgraduate qualifications in behavioural science. All researchers involved with this study were female. An approach to analysis (Steps 6-8; see Table 2) was adapted consistent with recommendations by Braun and Clarke (2013). Variations according to geographical location were identified using frequency analysis of codes.

Results

Sample characteristics

Interviews were conducted with 13 men recently diagnosed with cancer (referred to as participants throughout) and eight female partners (one identifying as a carer). See Table 3 for sample characteristics. All participants were over 50 years of age ($M=68$ years, range: 54-79 years) and a majority (92%) were currently in a relationship. Six resided in an urban area and seven in a rural area. Most partners were over 50 years of age ($M=62$ years, range: 43-71

years). All participants identified as heterosexual. Ten participants had experienced a cancer diagnosis previously.

Patient intervals

Nine participants (69%) actively sought help for symptoms. Four participants (31%) reported they had not noticed any cancer symptoms prior to diagnosis, and were diagnosed by means of prostate-specific antigen test (n=3) or skin cancer check (n=1). Participants' help-seeking intervals were difficult to differentiate from appraisal intervals, thus patient intervals are reported. It should be noted that these time periods are an estimate. As expected, the longer a patient interval the more imprecise the recall appeared to be (Scott & Walter, 2010).

Patient intervals ranged from four days to 12 months among participants who actively sought help (n=9). Three participants were classified as "prompt" help-seekers because they had visited a doctor within two weeks (Quaife et al., 2014) of noticing a lump; a change in a mole; and a change in taste (with associated vomiting). One of these participants (changed mole) had a pre-arranged GP appointment, and believed he would not have otherwise sought medical advice. Six participants delayed seeking help for symptoms for more than two weeks, with delays ranging from approximately four weeks to 12 months. The majority of participants delayed seeking help, with no difference between participants residing in urban and rural areas.

Validation of patient intervals was possible for six participants who sought help for cancer symptoms. Four recollections were validated by partners, with minor differences reported for one couple dyad, i.e., small differences in the recollection of the exact date and the patient interval (three days difference). For the two intervals that were not confirmed by partners, lack of disclosure appeared to influence recollections. One participant did not disclose the symptom (lump in throat) to his partner initially and his recollected patient

interval was longer (five weeks) in comparison to his partner's (less than one week). The partner of a participant who experienced a new dry cough believed he had not experienced any symptoms and that it had been detected at a general check-up. She also commented, "*He keeps a lot to his chest.*" In contrast, the participant reported that his wife was aware of the cough and had encouraged him to seek medical advice. It was not clear whether he had disclosed the purpose of his GP appointment.

Thematic synthesis

Five key themes and one subtheme were identified in the data (see Supplementary Figure 1 for thematic map). The overarching theme was the influence of symptom factors, including symptom knowledge, experience, and attribution. Other key themes included, traditional masculine norms (subtheme: women's health-related responsibilities), level of concern, conflicting responsibilities, and trust in medical professionals. Thematic variations according to geographical location are addressed within themes. Exemplar data are reported within the synthesis; additional empirical data are reported in Supplementary Table 1.

Theme 1: "I thought it was something else": symptom knowledge, experience, and attribution

The most prominent theme identified in the data described the limited nature of participant knowledge about symptoms, their symptom experience, and symptom attribution. Participants appeared to have limited knowledge of common cancer symptoms, with the exception of skin cancer symptoms. Several participants noted they had no knowledge of cancer warning signs: "*I didn't have much idea on what symptoms you had because, you know, you hear about people with skin cancers where you've got a mark or a blemish on there, which you have a look at, but I didn't ... I've never realised ... some people say that they've had a pain, you know, they've had a pain somewhere, or you know, and that didn't get better.*" (P6, Bowel cancer and Hodgkin Lymphoma). One partner agreed that her husband had limited health knowledge: "*He doesn't have any perception of how his body works and*

what sort of things can happen.” (P6 partner). This limited knowledge may perhaps be a function of conformity to dominant masculine norms, in which men are reluctant to perceive themselves as vulnerable to health issues (Courtenay, 2000). One participant reflected that men do not have the same level of health knowledge as women, and followed on that men do not want the knowledge: *“I think we just don't want the problem or we don't want the knowledge, and, yeah, “Oh, it'll be right.” But we're just not going to be alright with cancer.”* (P7, Melanoma).

Potentially as a result of limited cancer knowledge, attributing the cause of a symptom was often challenging for participants. Ten participants experienced a symptom that was either noticed by themselves (n=8) or their partner (n=2). Some participants thought their bodily change might be a warning sign of cancer, but many were uncertain. One man who experienced a new dry cough for roughly five to six weeks before seeking medical advice explained that he *“always knew there was a chance”* of cancer. He had described a history of exposure to and concern about asbestos. However, this participant also indicated he thought the cough he was experiencing *“can't be much;”* a belief supported by his partner: *“At the time it was just a cough. If it's still there when I go to the doctors I'll tell her about it, but it wasn't... I wasn't in pain or wasn't, you know...”* (P5, Lung cancer).

Symptom experience was identified as important within participants' accounts of help-seeking. Participants who delayed help-seeking often perceived a symptom to be mild (e.g., not bothersome or causing pain) and/or experienced it intermittently: *“I only knew it was there when I went to touch the thing, that's about it, but otherwise it didn't affect my health in any way, you know, not at all.”* (P2, unknown diagnosis). Participants explained they sought help for symptoms if they changed, were perceived to be more severe, or were prolonged: *“I was aware that it had changed in its appearance. It looked more like a burn blister than a mole.”* (P1, Melanoma).

Theme 2: "If I can't do it on my own, I won't do it": traditional masculine norms

Another main theme captured participants' beliefs about traditional masculine norms. Masculine norms were outlined in the coding frame according to masculine role socialisation models (Addis & Mahalik, 2003; Courtenay, 2000), and included the importance of appearing strong and tough, being emotionally in control or stoic, preferring self-reliance, believing themselves invulnerable to disease, inexpressiveness and a preference for privacy, as well as a focus on being successful and powerful. Traditional masculine norms were identified within many participants' experiences of seeking help for cancer symptoms and health issues: *"True, I'm a male chauvinist as far as that's concerned. You know, I won't ask directions, I'm that sort of person. If I can't do it on my own I won't do it, and it wasn't until I got really ill that I realised that, you know, you're an idiot, you know, there's people there that can help you."* (P8, Secondary bowel cancer). While some participants openly acknowledged the importance of masculinity, for others the influence was identified through reported behaviours associated with aforementioned traditional masculine norms. These behaviours included: a failure to disclose symptom worries to a partner or others, a preference for self-reliance (e.g., self-monitoring and medication) rather than seeking assistance, a belief in being healthy or never getting sick, as well as a commitment to battling through symptoms by ignoring them or distracting themselves. Five partners also suggested that masculine norms (e.g., lack of disclosure, stoicism, a belief in illness as weakness) were barriers to men's medical help-seeking: *"He's a boy and they're supposed to be stoic and not be bothered by little things, but it's the little things you've got to keep an eye on."* (P9, partner).

However, many participants also discussed societal changes in relation to masculinity, whereby they believed that pressure to conform to a macho ideal was more prevalent in their fathers' generation, and the pressure was reduced for men younger than themselves: *"I think it's because "men don't cry", that sort of attitude we were brought up with, although I do,*

often. But we were brought up with that. You know, you fall over, you get up and carry on; that was the attitude we were brought up with. I think it's less so now in modern society. I think boys are not supposed to be so macho, as they were in my day." (P8, Secondary bowel cancer). The data indicated that while traditional attitudes towards gender and help-seeking might still be prevalent in older populations, this factor should not be generalised to younger populations.

Several participants perceived traditional masculine norms (e.g., self-reliance) to be pronounced in rural areas: *"It can be a pretty blokey thing working on the land, there's lot of physical work and stuff involved and it is insular and remote often, you know, so you know, they're used to fixing up their own tractors and doing all that sort of stuff for themselves and I think they probably almost view medicine the same way, "I'll fix this up myself".*" (P11, Prostate cancer). One rural participant believed both of his parents delayed or avoided seeking medical advice. This may suggest a generational rather than a gendered change, or a preference for self-reliance commonly found in rural areas. A frequency analysis of the data indicated no differences in the endorsement of traditional masculine norms or the influence of norms between rural and urban participants in this study.

Subtheme: "I was lucky, I had someone pushing me to go": women's health-related responsibilities

A subtheme identified within traditional masculine norms was the importance of social support and women's responsibilities for family health. Many participants referenced gendered differences in health-related help-seeking; they believed women are more aware of health issues, more proactive, promptly seek medical advice, and are in a better position to take care of their health due to their broader focus on responsibilities for health within the family: *"But she was always one for making those women's decisions about ... because it's family as well, you've got the responsibility; the children and their health, so yeah, you can't*

pussyfoot around and, you know, make ... procrastinate, you can't delay. So I think maybe the women are in a better decision-making position.” (P1, Melanoma).

A pattern was identified linking perceived gender differences in health with a reliance on partners for assistance with health matters, highlighting the health-related responsibilities of women. Among participants who were symptomatic, half indicated they had sought informal support from their partner when they first noticed a symptom. Most participants indicated they received instrumental social support from their partner who arranged appointments with healthcare professionals or provided advice about medical help-seeking: *“And sometimes the decisions need to be made by the support base to make sure things at least get on, you know, get started, to be dealt with.” (P1, Melanoma).* Almost all partners confirmed providing this social support: *“So he's somebody who doesn't really take a lot of notice of symptoms and things and tends to rely on me for everything, to make decisions and to identify things and do something about it.” (P6 partner).*

Theme 3: “She’ll be right”: level of concern

Men’s accounts of help-seeking often included reference to their level of concern. Two participants who delayed help-seeking discussed a low level of concern about their symptoms: *“Yeah, well, I was pretty slow to react. No, I wasn't too concerned about it.” (P10, Prostate cancer).* As symptoms changed over time, concern increased and medical help-seeking became more important. A moderate to high level of negative emotion (e.g., concern, worry, fear) within accounts of help-seeking was paradoxically referenced by both those who had sought medical advice promptly and those who had delayed. This is consistent with the Yerkes-Dodson law (Yerkes & Dodson, 1908), in which a moderate level of arousal is required for action.

Participants who delayed seeking help often expressed optimism about symptoms; believing that symptoms come and go by themselves without action. They commented that

men are generally optimistic when it comes to health issues: *“I think men think it's going to be okay, that it will go away.”* (P7, Melanoma). Optimism regarding symptoms was predominantly a feature of rural participants' accounts of help-seeking: *“Always had an attitude; it come by itself, it'll go by itself.”* (P4, Prostate cancer). This finding was validated by two partners. For one rural participant who experienced a new lump, his wife also indicated being optimistic about his symptom: *“He said he had a bit of a lump on his neck and, and I said ... because sometimes your glands go up and down. I said, “It might just go away”.”* (P2 partner). Several rural participants also noted a slower paced life and ‘laid back’ attitude within rural areas: *“It's a lot slower pace; you don't have to rush to do anything.”* (P5, Lung Cancer). These themes rarely featured in urban participants' accounts of help-seeking. This pattern is consistent with health beliefs and attitudes differing between men from urban and rural areas.

Theme 4: “I’ll get to it a little bit later”: conflicting responsibilities and difficulty with access

Participants who delayed help-seeking commonly spoke of conflicting responsibilities and competing demands within their accounts of help-seeking. For instance, family commitments, other medical issues, travel, volunteering, and work were sometimes prioritised over seeking help for medical concerns: *“It was something that I was very well aware of that needed attention. But did I put top priority on it? I think I was travelling a bit and thinking that I'll get to it a little bit later.”* (P1, Melanoma). There was a tendency for participants to seek medical advice in ways that were designed to minimise time lost to other activities. For example, participants reported seeking professional medical advice when multiple health issues needed attention or at a pre-arranged appointment: *“I think I probably mentioned to the doctor the next time I went to see him for some other reason, it might have been to do with, I don't know, a flu shot or something.”* (P10, Prostate cancer). Several

participants reported seeking medical advice from the internet or a relevant information source in the first instance.

Several rural participants noted greater difficulty in accessing professional medical advice: *“Well, there's only ... the problem is in the country, you might have to wait for a while.”* (P5, Lung cancer). A frequency analysis of the data indicated that rural participants more commonly discussed access issues than urban participants, confirming the proposition that access to professional medical advice can be more restricted in rural areas. Access was particularly an issue during the holiday season: *“It was at a time when I could not go and see the doctor straightaway because the medical centre there had more or less closed down for Christmas.”* (P3, Throat cancer). Moreover, two participants discussed the increased inconvenience of help-seeking for farmers: *“Well, for a farmer it's a bit of a difficulty. Because a lot of the fellow Rotary members were farmers and they've got to ... to come in from a farm to a doctor is a damn nuisance.”* (P3, Throat cancer). However, it is important to note that no farmers participated in this study.

Theme 5: “Best get it fixed by the doctors in white coats”: trust in medical professionals

The final theme captured the extent to which participants' trusted healthcare professionals: *“I won't look at that on the Internet. I only believe what the doctors and nurses are telling me, I don't believe that thing. I like to get my information from word of mouth, eh.”* (P2, unknown diagnosis). Trust in health professionals was expressed by both those who had sought medical advice promptly and those who had delayed. This suggests that while trust is important for medical help-seeking, other variables may play a role in delaying help-seeking. It should be noted that participants were either in treatment or had recently completed treatment at the time of the interview, which may have influenced the degree of trust in medical professionals they expressed, i.e., trust may have been established after treatment, rather than before help-seeking.

Discussion

This study investigated men's experiences of help-seeking for cancer symptoms, with a focus on variation between men from urban and rural Australia. Patient intervals were comparable across urban and rural groups, with the majority of both groups delaying help-seeking. However, experiences of medical help-seeking appeared to differ in two important ways. First, rural participants more commonly described issues with access to professional medical advice. This is to be expected considering the lower prevalence of GPs in rural areas in Australia (AIHW, 2005), and is in line with broader medical help-seeking literature (Schlichthorst et al., 2016). Second, optimism regarding symptoms was a noteworthy barrier to help-seeking for rural participants. This is consistent with previous research that found aspects of rural identity, including optimism, stoicism, and machismo, to contribute to men's delayed help-seeking (Emery et al., 2013). However, the present study's findings were also unique in that there were no differences identified in the endorsement of masculine norms (including stoicism) or the influence of norms across urban and rural accounts of help-seeking, suggesting this factor may be influential regardless of area of residence.

The findings of the present study also provide new evidence from an Australian context, confirming the international relevance of factors previously identified from the wider literature (Fish et al., 2015). The overarching theme was the importance of symptom factors when seeking medical advice, including symptom knowledge, experience, and attribution. Participants appeared to have minimal knowledge of cancer symptoms and difficulty identifying the cause of their symptoms. This limited knowledge could be a consequence of dominant masculine norms and perceptions of invulnerability (Courtenay, 2000). It may also explain why cancer type and associated treatments did not appear to play an important role in men's experiences. Consistent with the international literature supporting symptom perception as a key barrier to men's medical help-seeking (Braybrook et al., 2011; Fish et al.,

2015; Yousaf et al., 2015), participants who delayed help-seeking often perceived their symptoms to be mild or experienced symptoms intermittently, and sought advice only when symptoms progressed in severity or were experienced for an extended period of time. These findings highlight the importance of interventions aimed at increasing knowledge about symptoms and appropriate help-seeking timeframes, such as the “Be Clear on Cancer” campaigns in the UK (Power & Wardle, 2015).

Linkages were identified between traditional masculine norms and delayed help-seeking. This finding was validated by partners, and is in line with wider research (Fish et al., 2015), and masculine role socialisation models (Addis & Mahalik, 2003; Courtenay, 2000). However, many participants in this study also perceived a societal shift in relation to masculinity and help-seeking. Participants believed that pressure to conform to a traditional masculine ideal has reduced over time and that younger men may feel greater freedom in seeking medical advice. Preliminary evidence suggests that younger Australian men (18-25 years) support relaxed masculine norms, which has been theorised to positively influence men’s health-related help-seeking behaviour (Drummond, Filiault, Anderson, & Jeffries, 2015). However, this is in contrast to international research that has found young men to delay health-related help-seeking due to masculine norms (Carpentier, Fortenberry, Ott, Brames, & Einhorn, 2011; O’Brien, Hunt, & Hart, 2005) and stability in the endorsement of masculine traits over time (Donnelly & Twenge, 2016). Future research exploring changing gender norms and attitudes towards help-seeking among young Australian men would be valuable.

Women were commonly perceived to be more proactive in regards to health and more likely to seek medical advice promptly. Moreover, female partners were often consulted about health issues before medical professionals and were sometimes relied upon for instrumental support. This supports previous international research findings that women may

play an important intermediary role in men's help-seeking (Fish et al., 2015), and the argument that relationships can be important for promoting early detection behaviours (Wang, Wilson, Stewart, & Hollenbeak, 2011). It also highlights the ongoing division of labour, unpaid work in the home, and pressure for women to take responsibility for men's health within the family unit (Reczek & Umberson, 2012; Roy, 2008). Nevertheless, gender role norms may only partly account for this recurring pattern of results. Reczek and Umberson (2012) found that "specialised health behaviour work" is commonly performed by one partner in straight, lesbian, and gay relationships. This may suggest that one individual, regardless of gender, predominantly takes responsibility for health in intimate relationships. Future research into men's help-seeking for cancer symptoms may include same-sex couples to provide further insight into this relationship.

Conflicting responsibilities were commonly referenced within men's accounts of help-seeking, consistent with the wider help-seeking literature sampling men and women (Fish et al., 2015; L. Smith et al., 2005). Family commitments, other medical issues, travel, and work were sometimes prioritised over seeking help for cancer symptoms. Participants appeared to avoid "wasting time" by seeking medical advice for multiple issues at one time or at a pre-arranged appointment. It was clear, however, that help-seeking with clinicians was preferred over other forms of help-seeking (e.g., talking to a pharmacist), with a high level of trust in health professionals expressed by a majority of participants.

The findings of this study are importantly comparable to themes emerging from international research (Fish et al., 2015). This suggests a broad international approach to improving men's early detection practices and help-seeking behaviour may be feasible. Cancer prevention interventions could potentially address cancer knowledge, unrealistic optimism, and gender role norms that appear to influence help-seeking behaviour. However, Australian and international research remains predominantly descriptive, and the predictive

strength of emerging factors are unknown (Fish et al., 2015; Scott & Walter, 2010). An international comparative quantitative study would be useful to investigate the relative predictive strength of these factors and to further test generalisability. An international comparative study is also likely to highlight the influence of different healthcare systems on men's help-seeking behaviour.

Limitations

Although qualitative research is not intended to be generalised, the results of this study should be considered in relation to the sample. Most participants in this study had a partner and many indicated they received social support. As such, results may not apply to single men who might experience additional barriers (e.g., reduced instrumental and information support) or attitudinal differences. Additionally, a majority of participants in this study reported a cancer history, which may result in greater symptom and treatment knowledge, as well as more optimistic feelings about cancer and help-seeking. However, these participants commonly described or demonstrated limited general cancer knowledge, and reported delays in help-seeking, which is likely explained by the type of cancer they previously experienced: eight of ten participants had experienced skin cancer. Skin cancer was not considered to be as serious to participants, compared to other cancers. This is likely due to the commonality of basal cell carcinomas, which are more common and slow growing compared to melanoma and squamous cell carcinomas. Consequently, previous diagnoses did not meaningfully influence the findings of this study. Finally, a majority of participants delayed help-seeking, but the delays could be considered moderate. This sample may have experienced fewer or different barriers to help-seeking than men within the community who delay for longer periods or who would not seek help. For example, fear, embarrassment, and shame rarely featured in participants' accounts, and may be important barriers to help-seeking for men who would not seek help or delay for longer intervals.

Accurate recall of help-seeking can be challenging for participants, particularly for those with long patient intervals, mild symptoms, or a stressful diagnosis (Scott & Walter, 2010). As expected, some participants appeared to have difficulty recalling the early stages of their cancer experience; instead preferring to focus on the diagnostic and treatment phase. Factors that influenced help-seeking behaviour may not have been recalled accurately or may have been considered irrelevant and therefore not mentioned by participants. Many participants also reported a change in identity as a result of their cancer experience, which may have influenced recall. A strength of this study is the calendar land-marking technique (Mills et al., 2014) and verification procedures used to address these limitations.

The female gender of the principal interviewer may have influenced the level of comfort participants felt when discussing their health, bodily changes, and masculinity. One recent qualitative study found differences in how men discuss masculinity depending on the gender of the interviewer, such that men may be more likely to endorse masculine norms with a male interviewer and emphasise a societal shift in gender role norms with a female interviewer (Sallee & Harris, 2011). This is important to note considering the results of this study. While the results may have differed if a male interviewer had been employed, using a female interviewer allowed participants the opportunity to challenge stereotypes and less pressure to adhere to masculine norms (Sallee & Harris, 2011).

Conclusion

This study investigated variability across men's help-seeking for cancer symptoms. Men's accounts highlighted that psychosocial barriers to medical help-seeking can vary across contexts. This implies that targeted cancer prevention interventions may be required to improve help-seeking behaviour. Follow-up quantitative research is required to confirm results and inform targeted interventions to improve men's medical help-seeking. Future

research should further explore variation between men, potentially across countries, and test the predictive strength of psychosocial factors associated with help-seeking.

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Table 1. Example interview questions for male participants

Domains	Interview questions	Prompts
Cancer experience	<p>Could you please describe in detail your experience starting from when you first noticed a change in your body?</p> <p>If cancer is detected from asymptomatic screen: Could you please describe in detail your journey starting from when you first decided to make an appointment with a doctor?</p>	<p>What were the bodily changes that you experienced?</p> <p>What were your thoughts at the time?</p> <p>How long did you experience [the symptom] for?</p> <p>Who did you talk to?</p> <p>Did the symptom change at all?</p> <p>When did you think that your symptom required medical attention?</p> <p>When did you make an appointment with a doctor?</p> <p>What were your reasons for making an appointment then?</p> <p>When did you visit a doctor for your symptom?</p>
Knowledge	<p>Before this experience, what signs and symptoms of cancer were you aware of?</p> <p>What was your understanding of your cancer risk?</p>	<p>Where did you gain your knowledge of warning signs?</p>
Masculinity	<p>Do you think men view health issues differently from women?</p> <p>Some men feel that seeking help for a health issues is not masculine. How did help-seeking affect your sense of masculinity?</p>	<p>What do you think being masculine is?</p>
Rural living	<p>How does living in the country influence who you are?</p> <p>Do you think men from the country view health issues differently from men in the city?</p>	

Table 2. Systematic analytic method

Stage	Description
1.	Transcription.
2.	Read and reread transcripts. Initial coding.
3.	Create coding frame – developed on the basis of theoretical codes (past research/theory) and supplemented with minimal inductive (data-driven) content.
4.	Check reliability of coding frame with independent research associate (30% of data). Refine coding frame through discussion, including data-driven codes.
5.	Complete coding, across the entire dataset. Minimal changes to coding frame.
6.	Search for themes and analyse data (including visual mapping).
7.	Review themes.
8.	Defining themes and final analysis - writing.

Table 3. Pseudonyms and sample characteristics

Participant	Age	Region	Diagnosis	Symptoms
P1	70	Urban	Melanoma	Change in mole
P2	68	Rural	Unknown	Lump (throat)
P3	79	Rural	Throat cancer	Lump (throat)
P4	61	Rural	Prostate cancer	Fatigue ^a
P5	61	Rural	Lung cancer	Cough
P6	67	Rural	Bowel cancer & Hodgkins Lymphoma	Taste & vomiting
P7	54	Urban	Melanoma	Change in mole ^a
P8	74	Urban	Secondary Bowel Cancer	Cough
P9	79	Urban	Melanoma	Change in mole ^b
P10	68	Rural	Prostate cancer	Urinary flow
P11	59	Urban	Prostate cancer	N/A
P12	73	Rural	Prostate cancer	N/A
P13	75	Urban	Non-melanoma skin cancer	Skin change

^a Symptom noticed by spouse.

^b Symptom noticed by health professional.

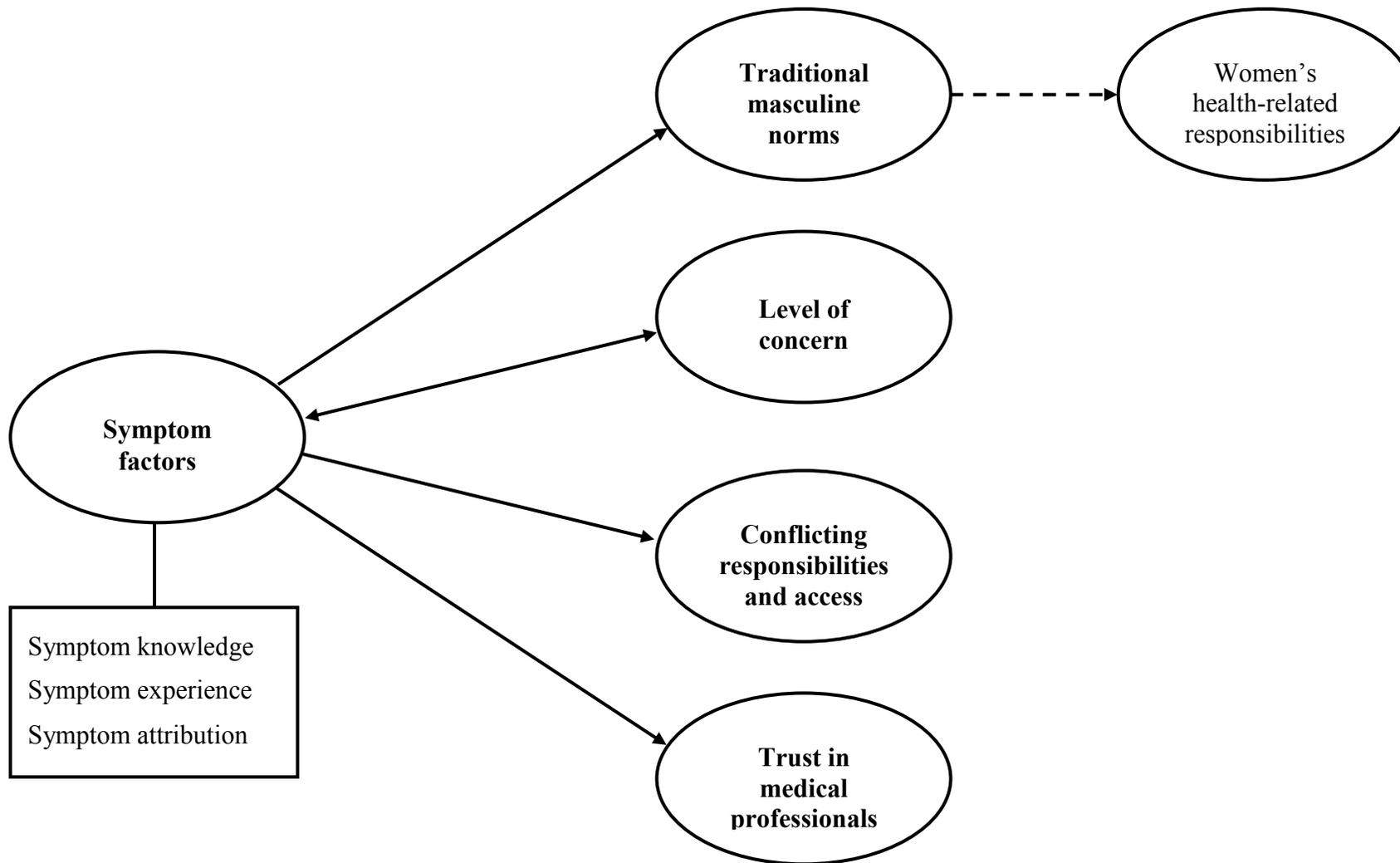


Figure 1. Final thematic map.

Note: Single directional solid arrows indicate a relationship between the overarching theme and other main themes; bi-directional solid arrows indicate a relationship functioning in two directions; single directional dotted arrows indicate a relationship between a theme and a subtheme.

Visual mapping approach adapted from: Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. London: Sage.

Supplementary Table 1. Empirical data from interviews according to themes

Theme	Illustrative data
Theme 1: “I thought it was something else”: symptom knowledge, experience, and attribution	Symptom knowledge
	<i>I knew a little bit, you know, you see things on the television. I mean, I didn't know a lot, but I knew a little bit that they can get darker and sort of look a bit strange and this, that and the other. (P7, Melanoma)</i>
	<i>I knew that sores that don't heal need to be looked at, I did have that general knowledge. (P13, Non-melanoma skin cancer)</i>
	<i>He doesn't have any perception of how his body works and what sort of things can happen. (P6 partner)</i>
	Symptom attribution
	<i>Again, it was all ... coming from the fact that cancer has been sort of in the foremost of my mind. (P1, Melanoma)</i>
	<i>I just knew it was cancer, mate, I just knew it, eh. The doctor told me it was there, and I knew it was there. Hoping to Christ it wasn't but it was. (P2, unknown diagnosis)</i>
	<i>Well, it just sort of ... it was just one of those ... a funny thing, you know, like if you had a little virus or, you know, you were getting a cold. That's all I felt when it happened. (P6, Bowel cancer and Hodgkin Lymphoma)</i>
	Symptom experience
	<i>...but it healed, and it was still a mole. And then I knocked it again later on, and it bled, and then it healed. (P1, Melanoma)</i>
<i>That was probably one of the reasons I followed thing up because I seemed to be getting up more frequently in the night time to go to the toilet, and ah yeah, and the flow was slowing down. (P10, Prostate cancer)</i>	
<i>He didn't have any phlegm or anything, it was just a tickly annoying cough. (P5 partner)</i>	
<hr/>	<hr/>
Theme 2: “If I can't do	Traditional masculine norms

it on my own, I won't do it": traditional masculine norms

I think it's a man thing. I'm not sure. I think... when I look back at my medical history I know that I should have done things a lot sooner rather than delay them. (P1, Melanoma)

Not my masculinity, but it made me feel that I'm not that invincible ... I'm vulnerable. I'm vulnerable to everything else that people sometimes get, you know. (P2, unknown diagnosis)

Probably, probably that bloody man-thing I suppose, you know. I dunno. You keep pushing, pushing and pushing, do this, do that... Dunno. She said to me, "I've been telling you!" (P12, Prostate cancer)

Being sick was weak, you know; it's only women. (P4 partner)

Societal change

Most men have at the back of their mind that they're the breadwinner, you know, because there wasn't very many married women that worked in those days, you know, but it's a lot different now, you know. (P12, Prostate cancer)

I think years ago that some women would ignore things. I think of my mother and my mother was one case in particular, she ignored things and that proved her undoing and she finished up with breast cancer and she just ignored it, but I've got a feeling now this generation wouldn't ignore it. (P10, Prostate cancer)

Subtheme: "I was lucky, I had someone pushing me to go": women's health-related responsibilities

Gender differences in health

I think that ladies are stronger, to cope with it I think, without a doubt, and I think men think it's going to be okay, that it will go away, where ladies get it fixed. Yeah, go and get it fixed, or get the treatment started. And I think men delay and pussyfoot around and, yeah. (P7, Melanoma)

I've noticed with [wife's name], she'll tend to send the dogs to the vet or send the kids to the doctor for what I regard as trivial things and I must admit they have always been trivial but I guess there's always that 1 in a 100 that isn't trivial and that's, you know, blokes probably wouldn't go, feel that had to go to the doctor at the drop of a hat where probably women are more concerned about that. (P11, Prostate cancer)

Women's family and health responsibilities

She made me go to the doctors. (P4, Prostate cancer)

And then everything goes wrong and the woman's got to fix it up. (P4 partner)

She said, "Go and see the doctor, maybe he can give you something for it", you know. (P8, Secondary bowel cancer)

I was lucky, I had someone pushing me to go. (P7, Melanoma)

Theme 3: “She’ll be right”: level of concern

Emotions

Worried in as much as that I'm thinking, well, this has got to come off, but the more it changed the more that thought was there. (P1, Melanoma)

Yes. Yes, because I knew something bad was likely to happen, yeah. (P13, Non-melanoma skin cancer, referring to concerns about seeing a doctor)

Probably too frightened to know what they ... too frightened to learn that they could have something really wrong with them I think. (P2 partner)

Optimism

I thought it might go away, but it didn't. (P2, unknown diagnosis)

Oh, it comes by itself, it'll go by itself. (P4 partner, referring to P4's attitude)

It's just an odd thing that you weren't well, and you would fight it off, but it didn't go that way. (P6, Bowel cancer and Hodgkin Lymphoma)

Theme 4: “I’ll get to it a little bit later”: conflicting responsibilities and

Conflicting responsibilities

The only thing that might have held that up, we have a spate of things around that time in my life of a grandson's birthday, um... (P13, Non-melanoma skin cancer)

I'm coordinator out at the [Gaol] up at home - it's a museum – and um, I was putting a lot of time into that, you

access

know, and it just sort of didn't cross my mind. (P12, Prostate cancer)

Minimising wasted time

I usually take a list in with me and, yeah, "Is there anything else on your list?" (P5, Lung Cancer)

Yeah, I use the internet quite a lot, but I don't think you should do that because it frightens you. (P8, Secondary bowel cancer)

Access

The only problem at [home town] is that we've only got one doctor that's really much good. They have... she's not there all the week, but they do have others coming up from [nearby town], and to get an appointment there is a problem. (P3, Throat cancer)

Theme 5: "Best get it fixed by the doctors in white coats": trust in medical professionals

Trust

But as a GP she is a good GP, she's incredible. She will niggle and chase things up, you know. (P5, Lung Cancer)

So I'm really in their hands. This man, he seems to have an ability to see a melanoma from several paces but, I don't know. (P13, Non-melanoma skin cancer)
