Background
Cancer continues to be one of the leading causes of morbidity and mortality worldwide. While the causes of cancer are complex and multifactorial, increasing age is a significant risk factor. In 2020, almost half of all new cancer cases worldwide were diagnosed in people aged over 65 years (Ferlay et al. 2020). By the end of 2050, the number of people aged 65 years and older is projected to increase to more than 1.5 billion worldwide (United Nations 2019). As the number of older people continues to rise globally, the number of older people with cancer will also increase (Han et al. 2020, National Cancer Institute 2021).

Older people with cancer often have a varying range of specific but fluctuating physical, psychological, emotional, social, economic and spiritual needs (Estapé 2018). Functional decline is common among older people with cancer and can increase the risk of disability, morbidity and mortality, negatively affect treatment outcomes and reduce quality of life (Nightingale et al. 2021). Researchers have examined the care needs of people with cancer and found that many were unmet, including physical, psychological, information and communication care needs (Chua et al. 2018, Wang et al. 2018). Older people with cancer continue to be under-represented in clinical trials, resulting in limited treatment options and undertreatment (Estapé 2018). These complexities and challenges mean that having optimal communication with, and providing optimal information to, older people with cancer is crucial when planning and delivering care (Li et al. 2020). This article discusses the findings of a systematic review of the literature on the communication and information needs of older people with cancer.

Abstract
Older people with cancer often have a varying range of specific but fluctuating physical, psychological, emotional, social, economic and spiritual needs. To be able to participate in decision-making, they need optimal communication with healthcare professionals and accurate information from them. A systematic review of the literature explored the communication and information needs of older people with cancer. It appeared that these needs are not always addressed and that older people’s priorities are not always recognised. Barriers to addressing older people’s information and communication needs included personality traits and age-related functional decline, the effects of cancer on the person, a lack of time on the part of healthcare professionals and the absence of a main contact within the healthcare team. To meet the communication and information needs of older people with cancer it is crucial to adopt a person-centred approach.
Aim
To explore the communication and information needs of older people with cancer.

Method
The first author of this article conducted a systematic review of the literature. The inclusion criteria are shown in Table 1 and the search terms and strategy are shown in Table 2. The search terms were combined using Boolean operators (Bramer et al 2018).

Systematic searches were performed on the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Embase, MEDLINE and PsycINFO databases. After duplicates had been removed, titles and abstracts were carefully screened and critically reviewed. Articles that did not meet the inclusion criteria were removed. The remaining articles were retrieved and read. Out of the 383 articles identified through the database searches, ten were included in the final review. Two further articles obtained by reviewing the reference lists of retrieved articles were also included, bringing the total number of included articles to 12.

The quality of included studies was appraised using Critical Appraisal Skills Programme (CASP) checklists (casp-uk.net/casp-tools-checklists). Since most studies were qualitative or had a qualitative component, the CASP qualitative checklist was used (Long et al 2020). All 12 studies were deemed to be of high quality.

Data from the 12 studies were entered into a data extraction table. A thorough thematic analysis was conducted following the steps outlined by Nowell et al (2017). Each article was read several times and then coded, allowing initial themes to emerge. From these initial themes overarching themes were identified. Every step of the process of conducting the literature review was reviewed and discussed with the second author of this article.

Findings
The 12 studies had been carried out in Canada, Japan, the Netherlands, Norway, the US and the UK. Five used a quantitative approach, four used a qualitative approach and three used a mixed-methods design. Table 3 shows an overview of the 12 included studies.

Four themes emerged from the thematic analysis of data:

» Communication needs of older people with cancer not always addressed.
» Information needs of older people with cancer not always addressed.
» Priorities of older people with cancer not always recognised.
» Barriers to addressing people’s information and communication needs.

Communication needs of older people with cancer not always addressed
Four studies reported unmet psychological needs of older people with cancer (van Weert et al 2013, Noordman et al 2017, van Ee et al 2018, Tsuboi et al 2020). Noordman et al (2017) reported that 47% of their survey respondents experienced communication barriers and a lack of emotional support; van Weert et al (2013) and Tsuboi et al (2020) reported similar findings. In two studies, participants reported that healthcare professionals did not always take their needs and concerns seriously, leaving them feeling unsupported (Noordman et al 2017, Krokschoen et al 2020). However, in van Ee et al (2018), participating older men with prostate cancer explained that they did not want to show their vulnerability and...
therefore had little desire to share their feelings with healthcare professionals. A focused and tailored approach to addressing people's communication needs was considered important so that each person's needs would be understood and addressed, but did not always happen in reality (van Weert et al 2013, Fitch et al 2015, Guldhav et al 2017).

**Information needs of older people with cancer not always addressed**

Six studies (Fitch et al 2015, Guldhav et al 2017, Noordman et al 2017, van Ee et al 2018, Tsuboi et al 2020, Pieters et al 2021) demonstrated that older people with cancer did not always understand the information they were given about their condition and treatment options. In two of these six studies, participants thought they did not receive sufficient information: in Guldhav et al (2017), 67% of questionnaire respondents had expected more information and counselling regarding their condition; in Noordman et al (2017), six out of 14 interviewees reported that they had not been given enough information on treatment options and that this had negatively affected their decisions about treatment. Pieters et al (2021), who described the experiences of 54 women aged 65 years or over who had received a breast cancer diagnosis, found that many believed their age would protect them against breast cancer, which suggests that these women had not received appropriate information about the risk of cancer.

Four studies identified that their participants needed accurate information so that they could have realistic expectations and be able to plan for the future (van Weert et al 2013, Noordman et al 2017, van Ee et al 2018, Tsuboi et al 2020). To be able to make decisions about treatment, older people wanted to know about the side effects of treatment – something nurses recognised as important (van Weert et al 2011, 2013). However, despite older people's need for accurate information, healthcare professionals did not always go into much detail regarding treatment options (Fitch et al 2015, van Ee et al 2018, Tsuboi et al 2020) and information about side effects was missing from many discussions (van Weert et al 2013, Fitch et al 2015, van Ee et al 2018, Krok-Schoen et al 2020).

**Priorities of older people with cancer not always recognised**

In Tsuboi et al (2020), many patients and families expected doctors to make decisions about treatment, since they did not feel confident to do so. However, in all other studies, one of the priorities of participants was being involved in the decision-making about their treatment and care options. This was reflected in their need for information on their disease, treatment options and side effects and in their need for time to make their decisions. However, older people's priorities and needs were not always recognised by healthcare professionals (van Weert et al 2013, Fitch et al 2015, Guldhav et al 2017, Noordman et al 2017, van Ee et al 2018, Krok-Schoen et al 2020, Tsuboi et al 2020, Dumas et al 2021, Pieters et al 2021). Since healthcare professionals did not always recognise older people's priorities, they did not always meet their needs, leaving them feeling unsupported and concerned about their families (Van-Weert et al 2013, Fitch et al 2015, Noordman et al 2017, van Ee et al 2018, Dumas et al 2021).

**Barriers to addressing people's communication and information needs**

Several barriers to optimal communication and information were reported in the studies. These barriers can be classified in four categories:

- People's personality traits and age-related functional decline – personality traits (such as being reluctant or feeling embarrassed to talk about intimate concerns) and age-related disabilities (such as hearing issues or memory impairments) can result in older people with cancer not receiving, obtaining or absorbing important information about their condition (van Weert et al 2011, Noordman et al 2017).
- The effects of cancer on the person – older people's ability to process information may be affected by the emotional strain of having cancer, disease symptoms, side effects of treatment, uncertainty, fear, anxiety and fatigue (Noordman et al 2017, Krok-Schoen et al 2020, Dumas et al 2021).
- The lack of a main contact person within the health team – participants in Guldhav et al (2017), Krok-Schoen et al (2020) and Dumas et al (2021) mentioned the importance of having a main contact person within a team, since the absence of such a person resulted in suboptimal communication.

**Key points**

- Barriers to optimal communication and information for older people with cancer include age-related functional decline and the effects of cancer on people
- Further barriers include lack of time on the part of healthcare professionals and the absence of a main contact person within the healthcare team
- Appropriate and accurate information is important to enable older people with cancer to be involved in decision-making regarding treatment
- A person-centred approach can help address the communication and information needs of an older person with cancer and therefore improve their outcomes
Older women who had developed a survivorship care plan with healthcare professionals.

47% of older people reported barriers to communication including suboptimal memory, lack of information, and ineffective communication between healthcare providers. Main findings indicate that older people had unmet spiritual and psychological needs and often felt isolated. Setting of the study varied, with 53% of older people feeling confident to participate in conversations with healthcare professionals.

Part of a larger study using pre- and post-intervention methods, the study highlighted that not all people aged ≥70 years were satisfied with the information provided. 67-77% of older people received suboptimal information and support.

Nurses reported that the intervention was supportive, with some not willing to ask for help. Very few older women had a survivorship care plan, and older people wanted information on treatments and rehabilitation.

Older people who had a cancer coordinator received better information and support than those who did not have one. The overuse of medical terminology, the need for realistic expectations, and the need for survivorship care plans among older women (≥65 years) with breast cancer were observed. The study was conducted in the Netherlands.

Table 3. Overview of the 12 included studies

<table>
<thead>
<tr>
<th>Authors (year) and country</th>
<th>Aim</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hill-Kayser et al (2011) US</td>
<td>To explore the role of internet-based cancer survivorship care plans and compare their use in people with cancer aged ≥70 years and aged &lt;70 years</td>
<td>10,28 care plans created including 828 (8%) for people aged ≥70 years</td>
</tr>
<tr>
<td>van Weert et al (2011) Netherlands</td>
<td>To evaluate the effectiveness of an intervention consisting of communication skills training and a question prompt sheet to improve communication between older people (≥65 years) with cancer receiving chemotherapy and healthcare professionals</td>
<td>210 older people, 77 nurses</td>
</tr>
<tr>
<td>van Weert et al (2013) Netherlands</td>
<td>To evaluate what information and communication aspects older people (≥65 years) with cancer consider important in preparing for chemotherapy, the extent to which this corresponds with what oncology nurses consider important, and the extent to which nurses address these aspects during real-life educational visits</td>
<td>116 older people, 123 nurses</td>
</tr>
<tr>
<td>Fitch et al (2015) Canada</td>
<td>To identify the importance older people (≥65 years) receiving treatment for cancer assign to selected types of cancer-related information, their satisfaction with the information they receive and the barriers to effective information provision</td>
<td>684 older people</td>
</tr>
<tr>
<td>Guldhav et al (2017) Norway</td>
<td>To explore how older people (≥65 years) with cancer access information and counselling in home care nursing services</td>
<td>174 older people</td>
</tr>
<tr>
<td>Noordman et al (2017) Netherlands</td>
<td>To gain insight into communication barriers and supportive interventions experienced by older people (≥65 years) with cancer</td>
<td>70 older people</td>
</tr>
<tr>
<td>van Ee et al (2018) Netherlands</td>
<td>To explore the experiences of older men (≥70 years) with prostate cancer</td>
<td>22 older men</td>
</tr>
<tr>
<td>Noordman et al (2019) Netherlands</td>
<td>To explore how older people (≥65 years) with cancer and healthcare professionals rate a web-based communication tool</td>
<td>30 older people responded to a questionnaire; 17 older people and 8 healthcare professionals took part in a pilot study</td>
</tr>
<tr>
<td>Kroek-Schoen et al (2020) US</td>
<td>To explore the experience of communication and survivorship care plans among older women (≥65 years) with breast cancer</td>
<td>15 older women attended focus groups; 93 older women completed questionnaire</td>
</tr>
<tr>
<td>Tsuibo et al (2020) Japan</td>
<td>To explore the experiences and needs of older people (≥70 years) with advanced cancer in making decisions about palliative chemotherapy</td>
<td>15 older people, 15 doctors, 14 family members</td>
</tr>
<tr>
<td>Dumas et al (2021) UK</td>
<td>To explore the lived experiences of older women (≥65 years) with advanced ovarian cancer undergoing chemotherapy, their treatment preferences and treatment burden</td>
<td>15 older women</td>
</tr>
<tr>
<td>Pieters et al (2021) US</td>
<td>To describe the experiences of older women (≥65 years) receiving a breast cancer diagnosis</td>
<td>54 women</td>
</tr>
<tr>
<td>Method and data analysis</td>
<td>Setting</td>
<td>Main findings</td>
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<tr>
<td>A cancer survivorship care plan tool, a cancer information website and a user satisfaction survey</td>
<td>A cancer information website based at Abramson Cancer Center, University of Pennsylvania</td>
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</tr>
</tbody>
</table>
- People aged ≥70 years struggled to use the internet to seek information and were not involved in their care planning  
- Not all people aged ≥70 years were satisfied with the information provided  
- Some improvements to the tool were suggested by older people  
- Nurses recognised some of these needs but failed to recognise the importance of addressing the need for realistic expectations  
- Most older men were positive about the care they received  
- Older people had unmet spiritual and psychological needs and often felt isolated  
- Older people were generally satisfied with the information they received but barriers included the overuse of medical terminology  
- 67-77% of older people received suboptimal information and support  
- Older people who had a cancer coordinator received better information and support than those who did not have one  
- Very few older women had a survivorship care plan  
- Older women who had developed a survivorship care plan with healthcare professionals appreciated the personalised care  
- Suboptimal communication and coordination led to frustration and confusion  
- Older women wanted personalised information and believed a health coach was beneficial to their care planning  
- 53% of older people felt confident to participate in conversations with healthcare professionals  
- 47% of older people reported barriers to communication including suboptimal memory, lack of time on the part of healthcare professionals and suboptimal information  
- Each older man approached his cancer differently  
- Most older men were positive about the care they received  
- Some had unmet information needs which negatively affected their ability to make decisions  
- Some were not willing to ask for help  
- Older people and healthcare professionals felt positive about using the web-based communication tool  
- Some improvements to the tool were suggested by older people  
- Very few older women had a survivorship care plan  
- Older women who had developed a survivorship care plan with healthcare professionals appreciated the personalised care  
- Suboptimal communication and coordination led to frustration and confusion  
- Older women wanted personalised information and believed a health coach was beneficial to their survivorship  
- Older people with cancer and their families expected doctors to make treatment decisions  
- Older people had unmet spiritual and psychological needs and often felt isolated  
- Participants wanted active treatment and had a strong desire to keep cancer from interfering with their daily life  
- Although suboptimal information and ineffective communication between healthcare providers caused distress, women felt positive about their care and treatment options  
- Older women were shocked by their diagnosis  
- Age-related factors affecting how they received the news of their cancer diagnosis included misunderstanding risk factors, the effects of comorbidities, concurrent life events and evolving perceptions of cancer at that life stage |

**Table 3. Overview of the breast cancer diagnosis preferences and treatment burden**

To explore the lived experiences of older women (≥65 years) with advanced cancer in making decisions about palliative chemotherapy

To explore the experiences and needs of older people (≥70 years) with plans among older women (≥65 years) with breast cancer

To explore the experience of communication and survivorship care professionals rate a web-based communication tool

To explore the experiences of older men (≥70 years) with prostate cancer

To gain insight into communication barriers and supportive address these aspects during real-life educational visits

To identify the importance older people (≥65 years) receiving chemotherapy and healthcare professionals consider important, and the extent to which nurses people (≥65 years) with cancer consider important in preparing receiving chemotherapy and healthcare professionals

To evaluate the effectiveness of an intervention consisting of and compare their use in people with cancer aged ≥70 years and to explore the role of internet-based cancer survivorship care plans

To identify the importance older people (≥65 years) receiving chemotherapy and healthcare professionals consider important, and the extent to which nurses people (≥65 years) with cancer consider important in preparing receiving chemotherapy and healthcare professionals

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Four studies mentioned strategies for healthcare professionals to improve communication and information, including taking more time with each patient, taking their concerns seriously, offering more written materials and/or a question prompt sheet, and avoiding medical jargon (van Weert et al 2011, Fitch et al 2015, Noordman et al 2017, Krok-Schoen et al 2020). A practical solution to remove the barrier of impaired memory was mentioned in Noordman et al (2019), where 70% of survey respondents agreed with the idea of audio-recording their discussions with healthcare professionals so that they would be able to listen to them again later.

Discussion
The findings of this systematic review of the literature confirm that there are unmet communication and information needs among older people with cancer. Older people with cancer need appropriate and accurate information so that they can be involved in decision-making regarding their treatment and care. Most participants in the reviewed studies indicated that they wanted to be involved in decision-making and have open and honest discussions with healthcare professionals about their future care. Only in one study were participants and their families unwilling to get involved in decisions about treatment and preferred to let doctors make important decisions for them because they lacked the confidence to do so (Tsuboi et al 2020).

Interestingly, that study (Tsuboi et al 2020) had been conducted in Japan. In most European countries and in the US, older people with cancer tend to get involved in decisions about their treatment (Gong et al 2021). In many Asian countries, families tend to decide collectively for their relative (Xing et al 2017). People’s cultural background may affect their engagement in the decision-making process regarding treatment for cancer (Gong et al 2021). This suggests that healthcare professionals need to consider patients’ cultural background when communicating with them.

One of the findings of the review was that the absence of a main contact person in the healthcare team resulted in a lack of communication. In their integrative literature review on the role of the clinical nurse specialist in cancer care, Kerr et al (2021) reported that a clinical nurse specialist acting as the main contact person within the team had a positive effect on care coordination and patient outcomes. However, the role of the clinical nurse specialist is still developing in many parts of the world and the availability of such specialists may differ (Liu and Yan 2021). Considering the importance of the role, cancer services may need to develop it to improve communication and care coordination for older people with cancer.

People’s age-related functional issues and the effects of cancer on them were important factors contributing to inadequate communication and information. Older people with cancer are likely to have complex communication and information needs due to various cognitive, sensory, functional and psychological impairments. Age-related barriers such as physical decline and memory loss can make it challenging for healthcare professionals to understand older people’s needs (Korc-Grodzicki et al 2020). Each person will have their own needs and preferences regarding communication and information, so healthcare professionals should adopt a person-centred approach – which can help address each person’s needs and ultimately improve patient outcomes.

Limitations
Searches were conducted on four databases but restricted to articles published in English. Most of the studies included in the review had been conducted in higher-income countries and only one had been conducted in Asia.

Conclusion
Many older people with cancer want to be involved in decision-making about their treatment but their ability to do so can be negatively affected by suboptimal communication with, and suboptimal information from, healthcare professionals. Strategies for healthcare professionals to improve communication with, and information for, older people with cancer include taking more time with patients, taking their concerns seriously, offering more written materials and/or a question prompt sheet, and avoiding medical jargon. With the person’s permission, discussions around treatment could be recorded so that the older person can listen to them again later.

Healthcare professionals also need to consider their patients’ cultural background when communicating with them. Having a member of the team, for example a clinical nurse specialist, acting as the main contact person is crucial. Each person will have their own needs and preferences regarding communication and information, so healthcare professionals should adopt a person-centred approach.
References


van Weert JC, Iansen J, Spreeweenberg PM et al (2011) Effects of communication skills training and a Question Prompt Sheet to improve communication with older cancer patients: a randomized controlled trial. Critical Reviews in Oncology. 80, 1, 445-159. doi: 10.1016/j.cto.2010.03.000


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