Perspectives and expectations of person-centred and equitable cancer nursing care

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A mixed methods research study exploring the perspectives and expectations of patients and nurses, in relation to person-centred and equitable and cancer nursing care, within a Haematology and Oncology inpatient setting.

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Abstract

Background: The rising prevalence of cancer in New Zealand calls for a need to improve person-centred and equitable cancer nursing care, in order to enhance patient outcomes and alleviate burden on the healthcare system. However, achieving this can prove to be a challenge due to the increase in cultural diversity amongst patients and nurses. Therefore, understanding and embracing the perspectives and expectations of both patients and nurses would be beneficial and crucial to raising awareness and bridging gaps that could jeopardise person-centred and equitable cancer nursing care. With only one inpatient ward within the region, the acute Haematology and Oncology ward within Health New Zealand - Te Whatu Ora Waikato is no exception to these challenges.

Objective: This research aims to explore the perspectives and expectations of patients and nurses in an acute Haematology and Oncology ward within Health New Zealand - Te Whatu Ora Waikato.

Participants: Six patients from the inpatient ward were purposefully recruited in the qualitative phase according to the sampling framework, and through the application of inclusion, and exclusion criteria. All 53 registered nurses were invited to participate in an anonymous online survey during the quantitative phase. However, only 15 registered nurses responded.

Methods: This exploratory sequential mixed methods research consisted of an initial qualitative phase that explored the perspectives and expectations of patients using semi-structured interviews. Braun and Clarke's reflexive thematic analysis was utilised to identify themes from the interviews. An anonymous online Likert scale survey was then developed for registered nurses in the quantitative phase. Data from the surveys were analysed using descriptive statistics.

Findings: Four main themes emerged from patient interviews as important aspects of person-centred and equitable cancer care to patients: (i) Holistic needs and care, (ii) Involving and engaging support system, (iii) Barriers and challenges, and (iv) Nursing roles and patient engagement. However, findings from staff surveys revealed that nurses had varying perspectives and were not consistently providing care that patients valued. When both data sets were compared, it was evident that there were significant misalignments in the perspectives and expectations of person-centred and equitable care between patients and nurses.

Conclusion: Understanding and embracing the perspectives and expectations of patients and nurses in cancer care is a pivotal aspect to achieving person-centred and equitable care in New Zealand. However, barriers such as misaligned perspectives and expectations between patients and nurses can negatively impact the delivery of individualised care. As a result, this increases the risk for more unfavourable treatment outcomes and complications, thereby also placing more pressure on the already strained healthcare system. While this study has provided valuable insights, further research may be required to increase the generalisability and robustness of this topic. In addition, implementation of strategies, and interventions to encourage the alignment of perspectives and expectations between patients and nurses should also be explored at different levels of cancer care, including the incorporation of policy, educational and clinical support.

Acknowledgements

There is power in unity, and there is power in numbers

Dr. Martin Luther King Jr 1929 – 1968

The past 18 months has been a journey filled with personal development, growth, and blessings, despite the many challenges and obstacles along the way. Reflecting back, it would not have been possible for me to complete this study without the tremendous support from the people around me. Therefore, I would like to take this opportunity to express my sincere gratitude to the following people.

First and foremost, words alone would not be able to describe my gratitude for my family. Thank you for your continual unconditional love, understanding and encouragement, and for being my pillars of strength through the highs and lows.

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Last but not least, I would like to acknowledge and thank the patients and nurses who have participated in this study. This research would not have been possible without your support and participation.

Contribution

I, the researcher undertook all aspects of this study under the direct guidance of my supervisors. This entailed selecting the appropriate research design, the data collection and analysis, and the publishing of the findings in this thesis.

Dedication

To God for His unfailing love, grace, and peace, who sustained me through each step of the way.

To mum in heaven, this is in honour and memory of you.

To my family for their unwavering support, patience, and encouragement.

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Chapter I: Introduction

Success is not final; failure is not fatal. It is the courage to continue that counts.

Winston S.Churchill, 1874 – 1965

As the leading cause of death in New Zealand (NZ), cancer accounts for nearly one third of all deaths (Ministry of Health, 2020). Apart from its high mortality rate, cancer also brings detrimental impacts on varying levels, from individual wellbeing to national economy as well as the healthcare system. (Teng et al., 2024). With its predicted surge in numbers due to aging population, pressures on healthcare costs and cancer services will also undoubtedly rise proportionately. At the same time, cancer services are still expected to provide appropriate, culturally safe, and accessible care, especially with the exponential increase in patients of Māori, Pacific Islander and Asian ethnic backgrounds (Teng et al., 2024). These factors suggest that there is a vital need to improve cancer care, so as to reduce its disease burden. Therefore, NZ's healthcare system developed a Cancer Action Plan that aims to achieve this by providing person-centred and equitable care (Ministry of Health, 2019). This involves personalised cancer care that not only accounts for the needs, wants, preferences, values, and beliefs of patients, but also addresses barriers that would prevent patients from receiving the care they need to achieve optimal health outcomes (Coulter & Oldham, 2016).

Since nurses make up a major proportion of the workforce in the healthcare industry, it can also be inferred that they play a pivotal role in supporting NZ's Cancer Action Plan, influencing clinical outcomes, and contributing to building positive patient experiences (Riffat, 2023). However, as a result of globalisation and immigration, our increasingly diverse population amongst nurses and patients have made achieving person-centred and equitable cancer care a challenge (Goh, 2019). Disparities in culture could impact the way cancer care is provided, leading to poorer treatment outcomes and adherence, as well as higher complication rates. While efforts have been made to reduce health inequities at a national and systemic level, there are limited strategies aimed at addressing the matter through clinical care (Ford-Gilboe et al., 2018). Moreover, even though studies have suggested that understanding and embracing the perspectives and expectations of patients and nurses aid in ensuring that cancer care remains person- centred and equitable, there are insufficient studies analysing the perspectives and expectations of both patients and nurses in NZ (Yates et al., 2021). Therefore, this research aims to explore the perspectives and expectations of cancer patients and their registered nurses, on an acute inpatient Haematology and Oncology ward in Health New Zealand- Te Whatu Ora Waikato. Specifically, it aims to address the following research questions:

1. What perspectives and expectations do Haematology, and Oncology patients have in relation to person-centred and equitable care?
2. What perspectives and expectations do Haematology, and Oncology registered nurses have in relation to person-centred and equitable care?
3. How do Haematology, and Oncology registered nurses perceive patients' perceptions and expectations in relation to person-centred and equitable cancer care?

The following chapters will be organised to address the above research aim and questions through the discussion of current literature evidence underpinning this study, methods and methodology adopted, findings obtained from data analysis, as well as study implications. Data gathered from this research would not only be helpful in informing future research, but also provide valuable insights into potential strategies that could be put in place to bridge gaps and build awareness on cancer patients' perspectives and expectations.

Chapter II: Literature review

> *The important thing is to never stop questioning (or learning).*
>
> Albert Einstein, 1879 – 1955

2.1 Introduction, semi-systematic review

A literature review is predominantly described as the gathering, analysing, and integrating of current available studies using a structured and systemic approach (Snyder, 2019). It is an essential component to building a strong research foundation, as it not only provides an overview on the topic of interest, but also aids and supports the formulation of new study aims and questions through the identification of gaps in previous studies (Snyder, 2019). Therefore, conducting a thorough literature review would be the first most important process in this study. However, for a literature review to be considered valuable to research, it has to be precise, detailed, and reliable. This can be attained by utilising a literature review approach as a guide that would aid in ensuring that literature gathered are from credible sources, relevant to this study's research aims and provides in depth and valuable findings. The researcher considered two commonly adopted literature review approaches namely, semi-systematic reviews, and systematic reviews, before deciding that a semi-systematic review would be the most appropriate approach. The following outlines the researcher's justification and reasons for adopting of the semi-systematic literature approach in this study's literature review.

Firstly, the semi-systematic review, also known as a narrative review, is regarded as the traditional method in literature review, which involves the integration, interpretation, and critical evaluation of available literature on a topic of interest (Gregory & Denniss, 2018). The main aim of this approach is to provide researchers with an all-inclusive background context on the topic, and to highlight gaps or disparities within current literature. This helps researchers stay updated with current evidence while also identifying new research ideas, questions, and hypotheses (Paré & Kitsiou, 2017). Since the aim of this research is to navigate a broad, complex, and under-researched topic, Sukhera (2022) suggests that adopting the semi-structured approach would aid the researcher in drawing more insights into topic through exploring current literature and background context. Sukhera (2022), further highlights that the semi-systematic review approach is beneficial when exploring broad subjects due to its purposeful analysis of interpretation and narratives in research evidence, which is crucial when exploring perspectives and expectations with regards to equitable and person-centred cancer care. Lastly, since the semi-systematic review approach is based on current literature, research gaps identified, and conclusions made from the evidence would provide reliable information that can be used to inform and guide this study. In contrast, while the systematic review is widely known as the gold standard for literature reviews and revolves around the use of clearly defined search strategies and data analysis methods, this well-structured approach is more commonly used for quantitative studies and to analyse cause and effect size (Uman, L.S., 2011). Therefore, this implies that it would not be an ideal approach for exploring the perspectives and expectations of patients and nurses in this study. Since a semi-systematic review does not abide by a formal structure like the systematic approach, available guidelines such as those done by Snyder (2019), and Sukhera (2022) can be utilised to optimise rigor and enhance the quality of this research. Sukhera (2022), explains that a conducting a comprehensive background context and gaining insights within a semi-systematic review involves analysing how research has developed with time and tradition. This can be done through thematic and content analysis where themes are utilised to identify, analyse, and synthesize evidence. Therefore, this chapter will be organised to provide an overview of the literature review process that the researcher has undertaken though the use of identified themes. Based on these themes, current available literature was explored, synthesised, and critiqued using an integrative approach. Thereafter, the synthesized literature was used to identify gaps in literature, as well as generate new ideas, research aim and research questions.

Part 1: Overview of Topics

2.2 Introduction

With our increasing need for person-centred and equitable cancer care, historical and background context can help provide valuable insights to bridge gaps by encouraging new perspectives of this research topic (Åhsberg, 2024). In line with the semi-systematic review, the aim of this topic overview is to provide contextual background of person-centred and equitable cancer care in NZ. Since this study seeks to further explore person-centred and equitable cancer care through nurses' and patients' perspectives, it was broken down into three themes to facilitate a clearer and more in-depth overview of the topic. The themes include (i) Cancer patients, (ii) Obstacles to implementing equitable and person-centred care and (iii) Patient's and nurses' perspectives and expectations.

2.3 Cancer Patients

The World Health Organisation (2025) defines cancer as a broad class of diseases that causes abnormal and uncontrollable cell growth in nearly any organ or tissue, with the potential of also invading and spreading to other organs or parts of the body. Patients are described by Oben (2020) as people who are living with a disease, prior to or after commencing treatment. Since there was an absence of literature describing the term 'cancer patients', this study will define cancer patients as people who are living with cancer, regardless of whether they are currently undergoing cancer treatment or are in remission. This definition is based on the integration of both terms provided by Oben (2020), and The World Health Organisation (2025). With this definition in mind, a literature search was conducted on the cancer burden in NZ from 1995 to 2022, to provide an overview of cancer prevalence and mortality in cancer patients. While the New Zealand Cancer Registry was initiated in 1948, mandatory cancer registration was only established in 1994 when the Cancer Registry Act was put in place (Brewer et.al., 2020). This implies that data prior to 1994 would not have been accurate due to inconsistencies in reporting and was therefore excluded in this review. In addition, since records were only accessible up to 2022, data was evaluated and analysed till 2022. These data were analysed based factors that were observed to have an influence on person-centred and equitable care. These factors include gender, cancer type, geographic location, ethnic background, and age range. Evidence gathered in this review are portrayed using numbers and rates. Numbers refer to the total number of cancer registrations or mortality in a given time period, while rate refers to the number of cancer registrations or mortality per 100,000 people. In addition, charts are also used to clearly illustrate cancer prevalence trends and numbers over the years. These charts were obtained and compiled from the New Zealand Cancer Registry in Health New Zealand - Te Whatu Ora's cancer web tool, as well as other previous studies conducted in NZ by Haynes et al. (2008), Sarfati and Jackson (2020), Cleverley et al. (2023), Teng et al. (2024), Dearing et al. (2024), and Bizuayehu et al. (2024), on cancer.

2.3.1 Incidences and rates of cancer registration and mortality

Historical data provided by the New Zealand Cancer Registry on cancer prevalence and rates, have demonstrated a significant increase in cancer incidences over the years. 7327 new cancer registrations were recorded in 1995, with latest data in 2022 showing 28,275 registrations, indicating that cancer prevalence has increased by 286 percent over the course of 27 years (Chart 1). A study done by Teng et al. (2024) further revealed on top of this that new cancer registrations are predicted to continue rising at 2.3 percent a year, with an estimate of 45,100 registrations by 2040 to 2044 in total. The predicted increase is believed to be mostly associated to the growth and ageing in population, which is consistent when comparing with other countries such as Australia and Germany. While the rate of registration per 100,000 persons has remained relatively stable over the years (Chart 2), the current and predicted significant increase in cancer incidences emphasises the need for person-centred and equitable care as a strategy to cope with rising cancer prevalence, by reducing burden on individuals and the healthcare system. Along with increased incidences and registrations, mortality incidences have also increased proportionately over the years, growing from 7422 recorded mortalities in 1995, to 10,536 mortalities in 2022 (Chart 3). Despite that, the rate of cancer death within a population of 100,000 people has steadily declined over the years from a rate of 164.5 in 1995 to 108 in 2022 (Chart 4). This implies that while the overall number of mortalities have increased, effective strategies have also been implemented to reduce the mortality rate in relation to the population. However, Sarfati and Jackson, (2020) argued that while cancer survival has improved over the years in NZ, strategies to address health-related social and geographic inequities are still insufficient in comparison to other countries such as Australia. This once again highlights the need for more focus on person-centred and equitable care.

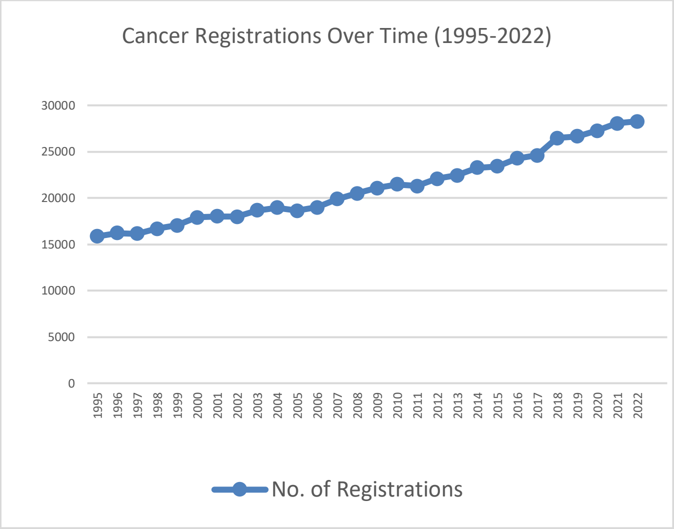


Chart 1: Cancer registrations over time

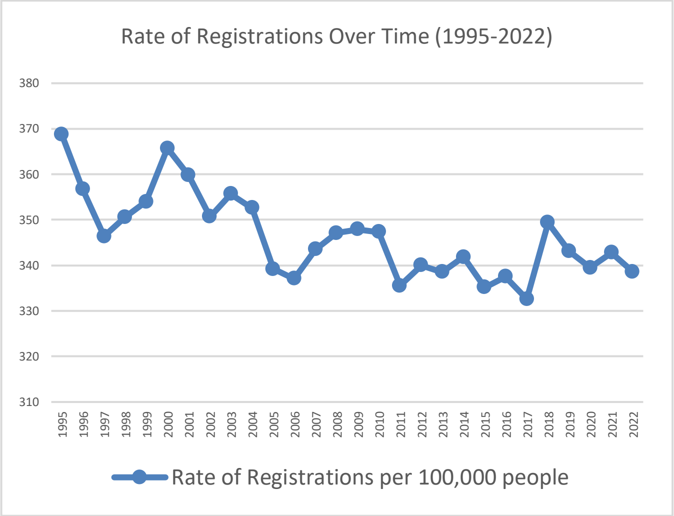


Chart 2: Cancer registrations over time

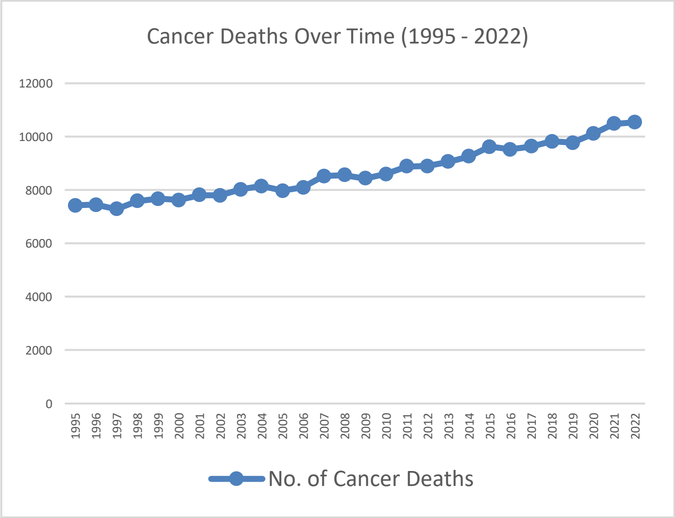


Chart 3: Cancer deaths over time

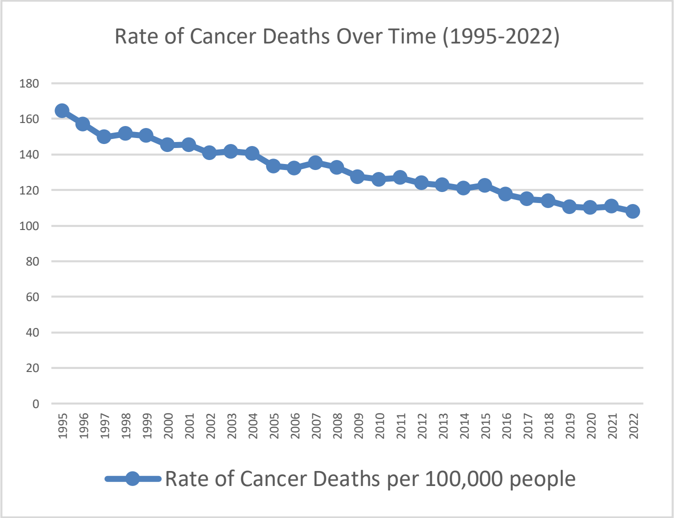


Chart 4: Rate of cancer deaths over time

Note: Information adapted from Te Whatu Ora. (n.d.). Cancer data web tool. Te Whatu Ora. Retrieved July 5, 2025, from https://tewhatuora.shinyapps.io/cancer-web-tool/

2.3.2 Cancer prevalence between males and females

When comparing incidences between males and females, males were shown to have a higher cancer prevalence as compared to females, with latest evidence in 2022 indicating that there were 14,896 registered cases in males as compared to 13,379 registrations amongst females (Chart 5). Teng et al. (2024), has also supported this in their study, demonstrating that predictions estimate 121,166 to 126,060 male registrations between 2040 to 2044, while there is only an estimate of 100, 569 to 104,132 female registrations. Despite that, registration rates between both genders remain stable throughout as depicted in Chart 6. Proportional with the overall increase in cancer prevalence and rates, the number of deaths amongst both males and females have also steadily increased over the years, with the overall number mortality amongst males still remaining higher than females (Chart 7). While cancer mortality rates have slowly decreased over the years for both genders (Chart 8), this evidence suggests that males are at a higher risk of cancer incidences and mortality as compared to females. Majority of the cancers are attributed to environmental factors such as smoking, diet, obesity, alcohol consumption, sedentary lifestyle, and infection. Therefore, Bizuayehu et al. (2024) justifies that males tend to have a higher risk for cancer and mortality due to the increased exposure to modifiable risk factors, including smoking and alcohol consumption. On top of this, Dearing et al. (2024) also demonstrated in their study that males were less like to engage in health services such as screenings due to the preconceived idea that health is a feminine matter. This suggests that disparities in health outcomes are apparent between genders, especially amongst males, which points to the need for more effective strategies that can address these modifiable risks in order to achieve person-centred and equitable cancer care.

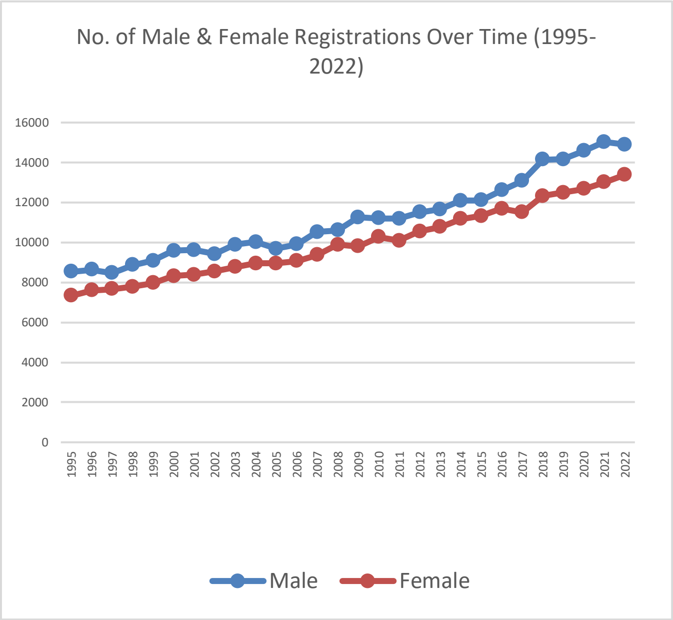


Chart 5: No. of male and female registrations over

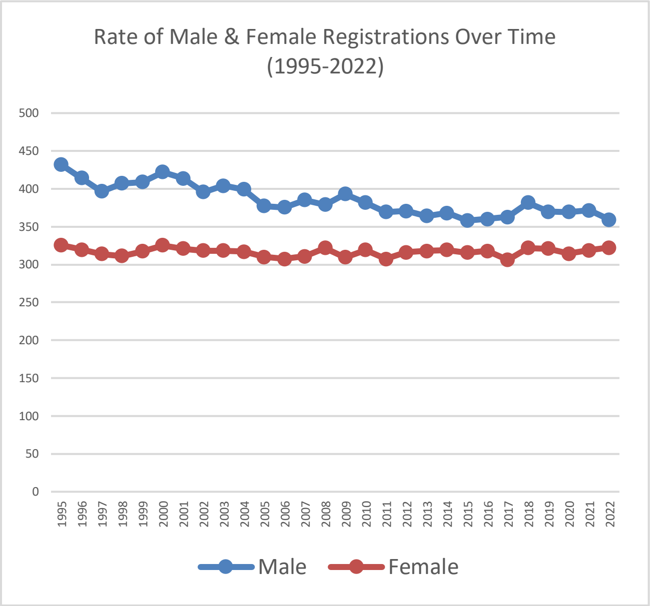


Chart 6: Rate of male and female registrations over

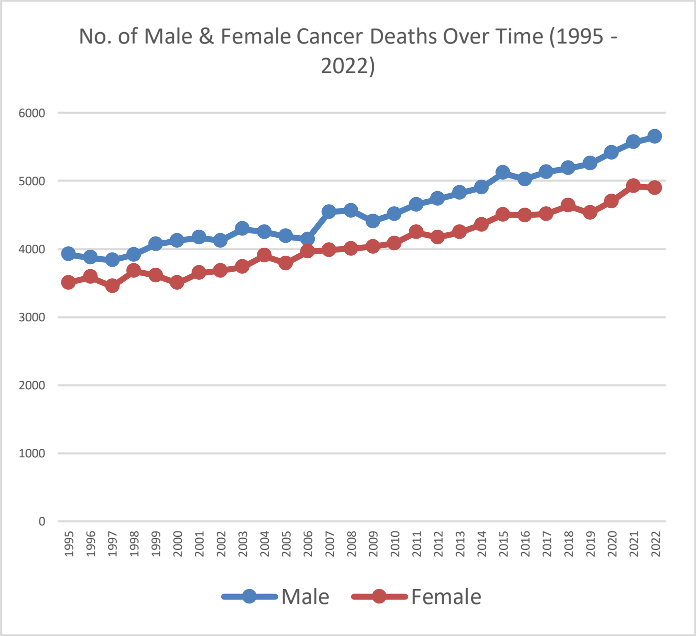


Chart 7: No. of male and female deaths over time

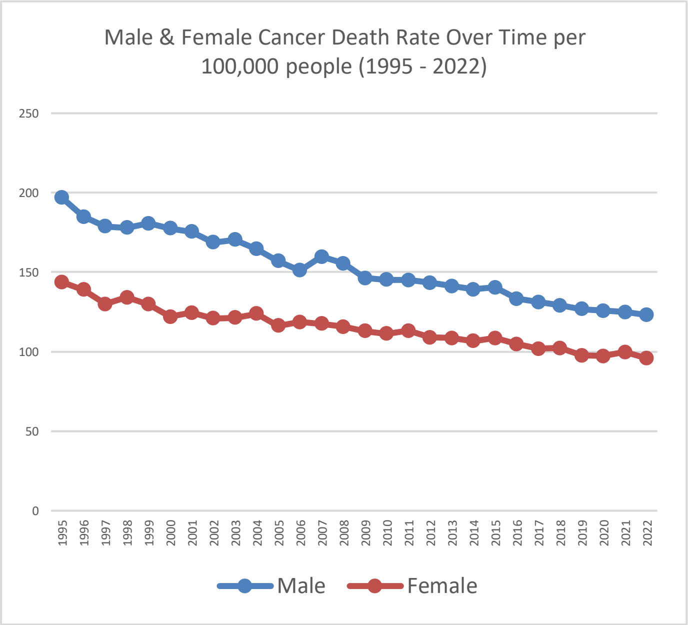


Chart 8: Rate of male and female deaths over time

Note: Information adapted from Te Whatu Ora. (n.d.). Cancer data web tool. Te Whatu Ora. Retrieved July 5, 2025, from https://tewhatuora.shinyapps.io/cancer-web-tool/

2.3.3 Prevalence of cancer types between males and females

Upon deeper evaluation of the different cancer types amongst both males and females in 2022, the top three highest cancer registrations for males are prostate, colorectal and melanoma respectively, with 4334 registrations for prostate, 1849 for colorectal and 1668 for melanoma. While amongst females, the top three highest registrations are breast, colorectal and melanoma, with 3669 registrations for breast, 1696 registrations for colorectal and 1427 for melanoma. However, the highest non-gender specific cancer registrations identified are colorectal, lung and melanoma with 3545 registrations for colorectal cancer, 2517 for lung and 3095 for melanoma. Teng et al. (2024) further breaks down cancer type trends over the years in the chart below (Chart 9), showing that incidences for all cancer types have increased over the years, except for ovarian cancer. Data from the chart demonstrates that prostate, leukaemia, and head and neck cancers had the most significant increase amongst males, while for females it was head and neck, uterine, bladder and liver cancers. On the other hand, there was a noticeable decrease in eye, brain, central nervous, oesophageal and melanoma cancers amongst male, with a decrease in ovarian and melanoma cancers for females. The remaining cancer types only had minimal observable changes over the years. Although prostate, colorectal and melanoma cancers had the highest incidences amongst males, melanoma was not part of the top three cancer deaths amongst males. Rather, lung, colorectal and prostate cancers contributed to the highest cancers deaths over time amongst males respectively. While for females, lung, colorectal and breast cancers had the highest recorded cancer death over the years. Contrastingly, even though melanoma cancer had one of the highest incidences in both cancers, it has one of the lowest mortality incidences and rates amongst both males and females. The decrease in melanoma incidences and low mortality rate suggests that effectives strategies have been put in place by the healthcare system. Charts 10 and 11 below provide an overview of the common cancer registrations and deaths amongst both genders.

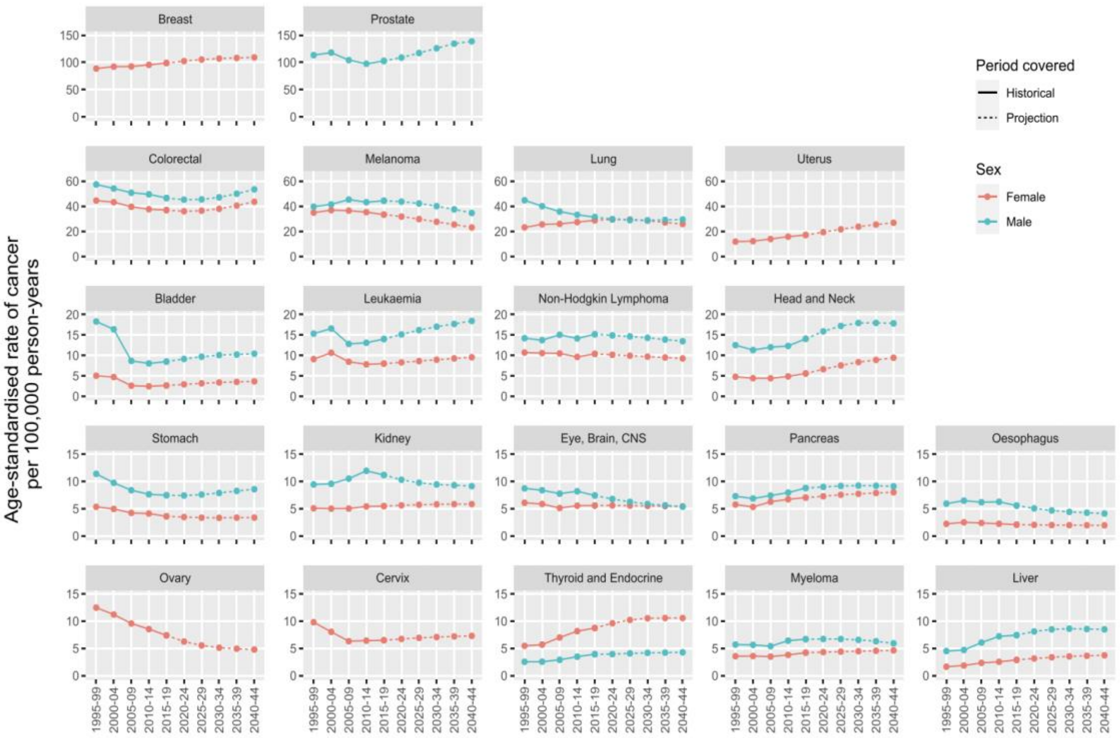


Chart 9: Age standardised cancer type rates (Teng et al., 2024)

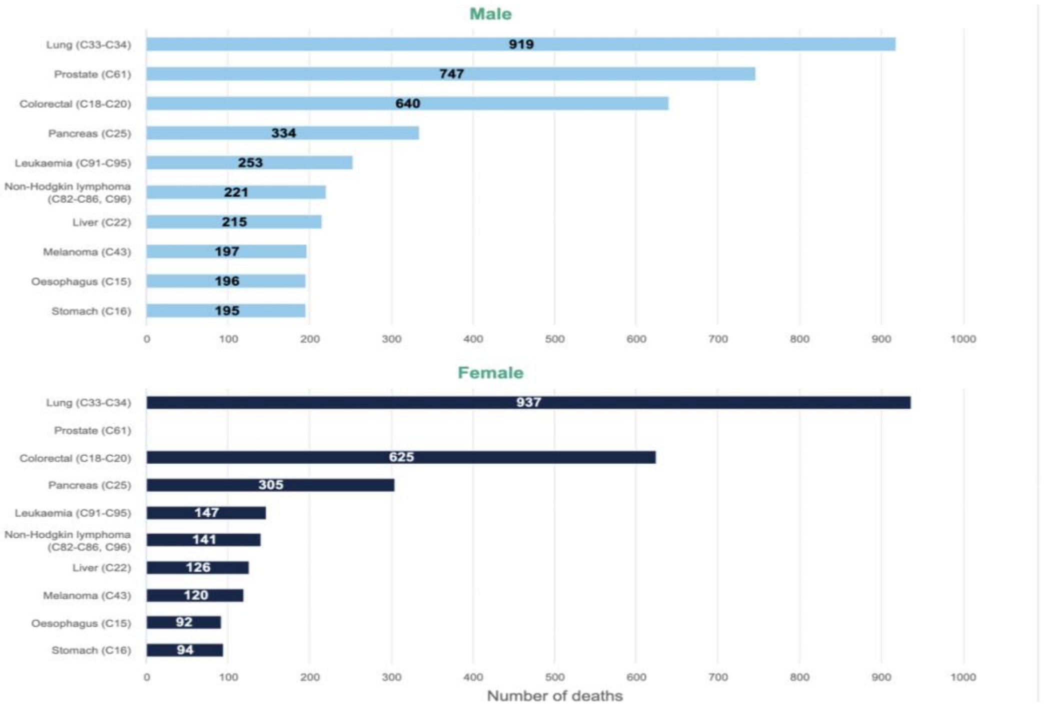


Chart 10: Common cancer types amongst males in comparison to females (Te Whatu ora, n.d)

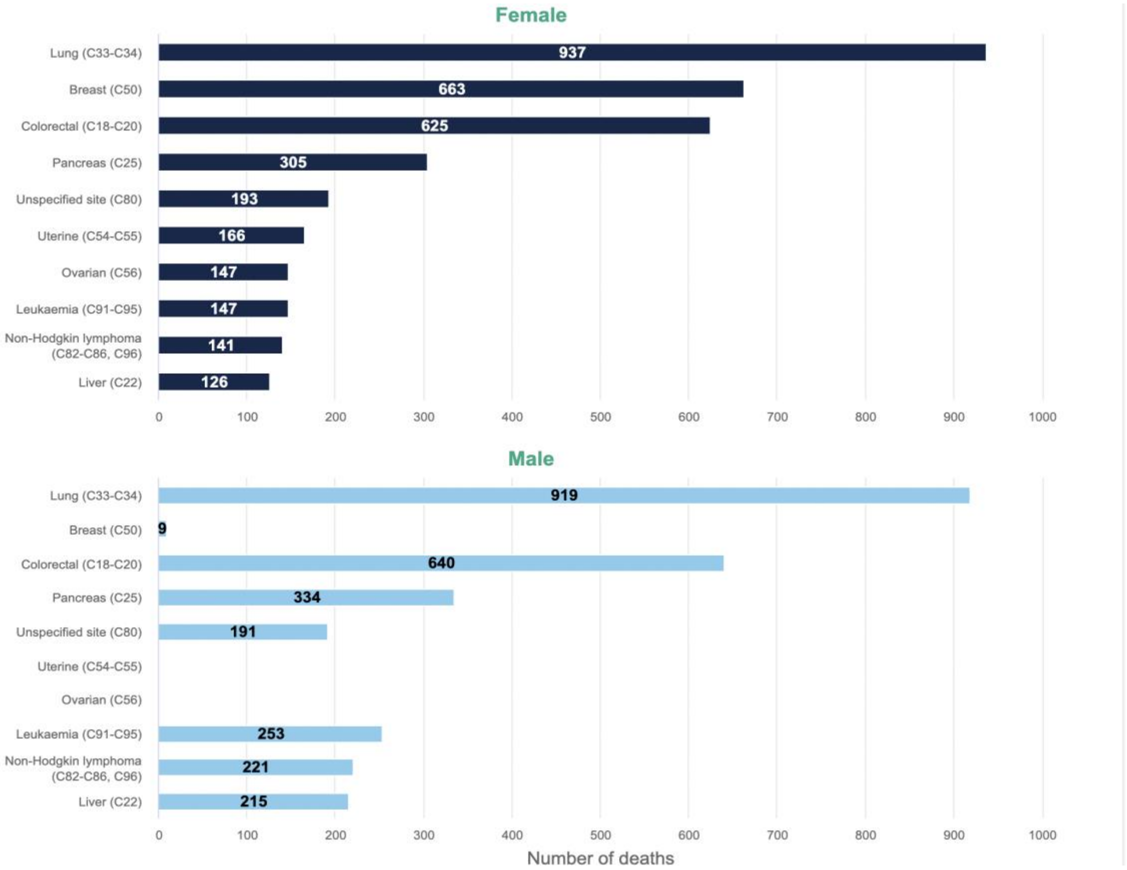


Chart 11: Common cancer types amongst females in comparison to males (Te Whatu ora, n.d)

2.3.4 Prevalence of cancer based on geographical region

Disparities in cancer registrations and mortality can also be identified amongst people living in different geographical regions and deprivation quintiles. Based on data collected from the New Zealand Cancer Registry, mortality rates for a few of the common cancer types in 2022 were higher for people residing in areas with more deprivation (Te Whatu Ora, n.d). Areas classified as 'quintile 5' are associated with the highest deprivation, while 'quintile 1' areas are known to have the least deprivation. This is most evident in lung cancers, where the highest registration and mortality rates were consistently correlated to residents living in quintile 5. A study done by Haynes et al. (2008) which analysed cancer prevalence and deprivation in NZ also revealed that people living in areas with more deprivation had marginally higher mortality and late-stage presentation for certain cancers. An example would be melanoma, where incidences and mortality rates were clearly correlated to deprivation areas, with approximately 60 percent increased mortality as compared to other areas of higher quintile. Survival rates were also noted to be lower for people with colorectal, breast and prostate cancers if they were residing in a high deprivation area that are also at a considerable distance from a cancer centre. Haynes et al. (2008), further revealed that due to the lack of access to specialist referrals, survival rates were observed to be poorer amongst patients with higher socio-economic deprivation. Although researchers are unsure why socioeconomic deprivation and distance from cancer centres only appeared to only affect certain cancers, these data still clearly demonstrate the vital need for healthcare providers to recognise the influence that socioeconomic status and timely access to services have on patient oncomes, in order to provide person-centred and equitable cancer care. The charts (Charts 12, 13, 14 and 15) below show the registration and death rates for common cancers in males and females within different deprivation areas in 2022.

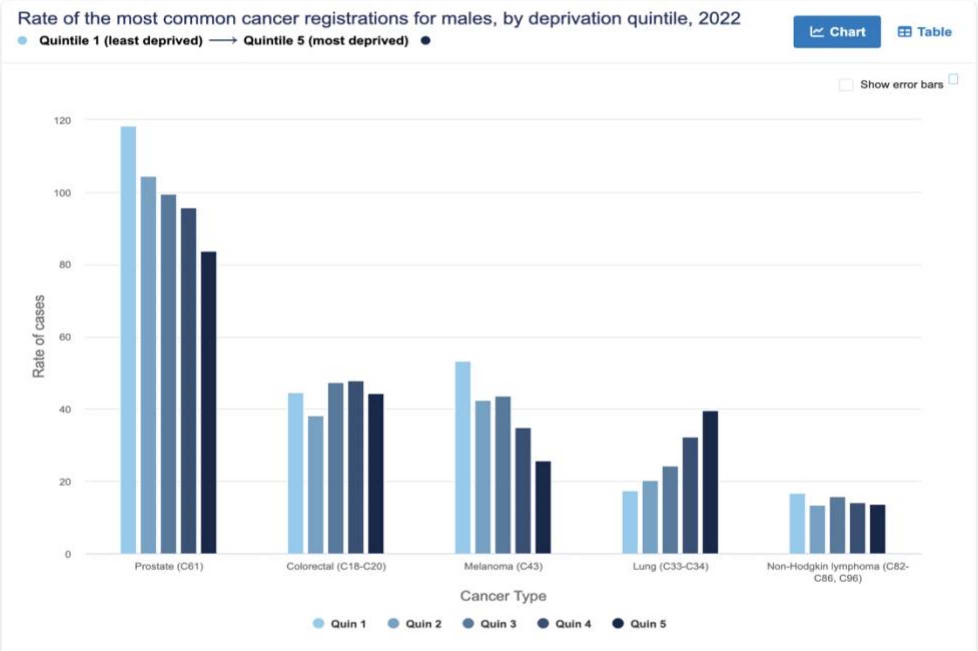


Chart 12: Common male cancer registration by quintile (Te Whatu ora, n.d)

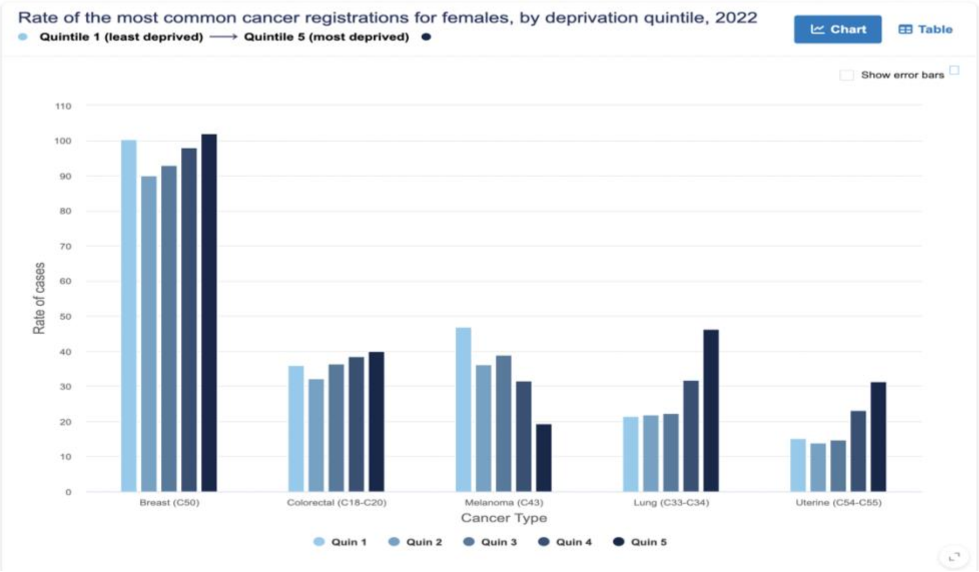


Chart 13: Common female cancer registration by quintile (Te Whatu ora, n.d)

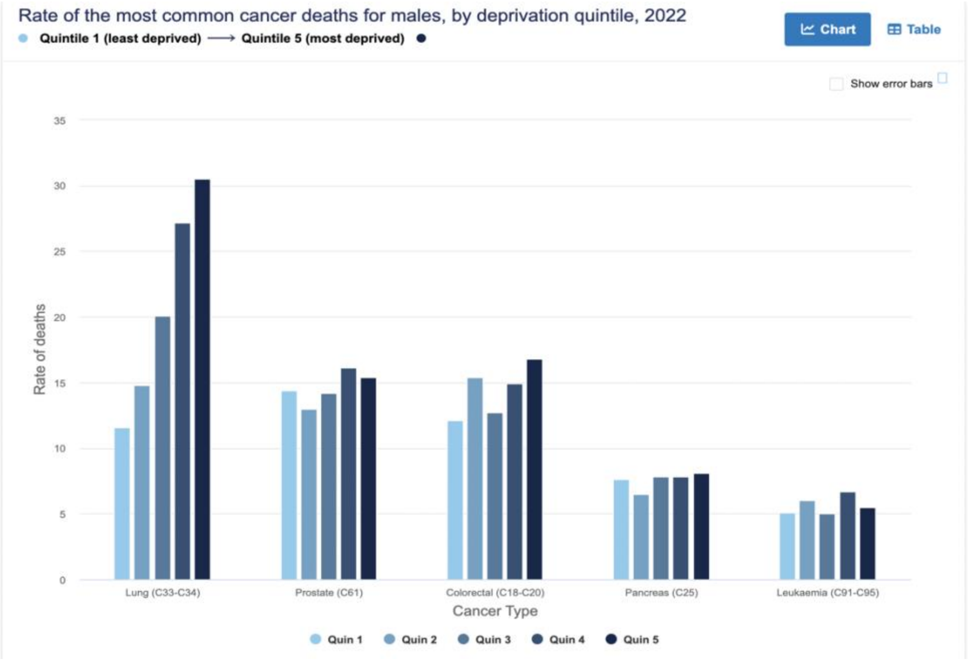


Chart 14: Common male cancer deaths by quintile (Te Whatu ora, n.d)

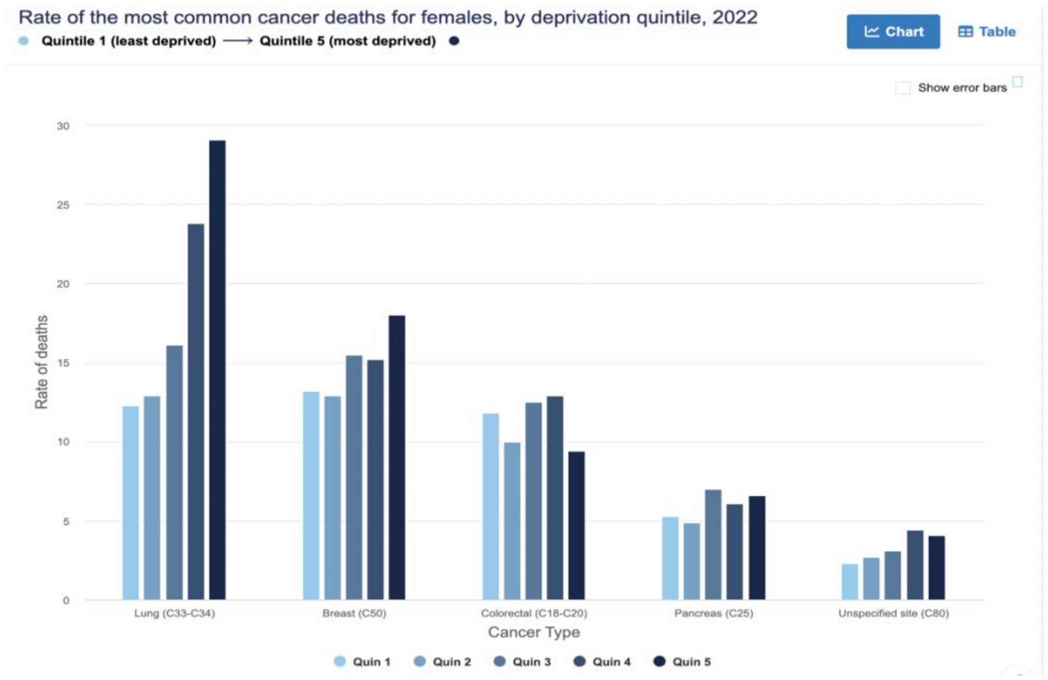


Chart 15: Common female cancer deaths by quintile (Te Whatu ora, n.d)

2.3.5 Prevalence of cancer based on ethnic background

Ethnic background is the third influential factor used to analyse cancer prevalence and mortality in NZ. Between the years 2008 and 2022, Māori consistently had the highest overall rate of cancer prevalence and mortality throughout as compared to non- Māori, which includes people of NZ European, Pacific Islander, and Asian background (Te Whatu Ora, n.d). After Māori, people of Pacific Islander background had the second highest cancer prevalence, followed by NZ European and lastly Asians. Sarfati and Jackson (2020) also concur with this finding by revealing in their study Māori and Pacific Islander people have higher incidence and mortality rates for preventable cancers when compared to people of other ethnic backgrounds. Teng et al. (2024) further elaborates by describing that Māori male had approximately a six percent increase in cancer prevalence between the years of 2006 to 2011, with twice the mortality rate due to greater cancer rates and lower rates of prognosis. In addition, Pacific Islander males had a mortality rate of one-third more than the others, despite having 19 percent lower cancer incidence in comparison to NZ Europeans and others. On the other hand, Māori females had an increase of 22 percent in cancer incidences between 2006 and 2011, while Pacific Islander females had relatively similar incidences as compared to NZ Europeans and others. A study done by Cleverley et.al (2023) reasons that poor outcomes for Māori and Pacific Islander people are attributed to the lack of adequate access to healthcare and differences in cancer detection. For example, screening programmes and prevention strategies for Human papillomavirus (HPV) through vaccinations have not been favourable for Māori and Pacific Islander people. Other attributable factors such as poverty, lack of housing, inequities in healthcare access, timeliness, and quality of care from diagnosis to treatment plans have also been identified as contributors to the disparities in cancer outcomes between the different ethnic backgrounds. Nonetheless, predictions done by Teng et al. (2024) shows that cancer incidences for males will stay relatively consistent throughout till 2044 for all ethnicities, except for NZ Europeans males. Cancer incidences for NZ European males is predicted to increase to a level comparable to that of Māori males by 2044. Amongst females, increases were most noticeable amongst Pacific Islander, Asian and NZ Europeans. Pacific Islander females are predicted to have the highest incidence rates in time to come, overtaking incidences in Māori females, even though Māori females have the highest incidence currently. Overall, Asians were predicted to have the greatest increase in incidences amongst both genders, followed by Pacific Islander, Māori and lastly NZ Europeans. These disparities amongst ethnic backgrounds accentuates that people of different ethnic backgrounds have different needs, thereby emphasizing the relevance of person-centred and equitable care. The relevant charts below portray past, present, and future cancer incidence rates from 1995 to 2044, as well as registrations and mortality rates between males, females, Māori and non- Māori between 2018 and 2022 for common cancers.

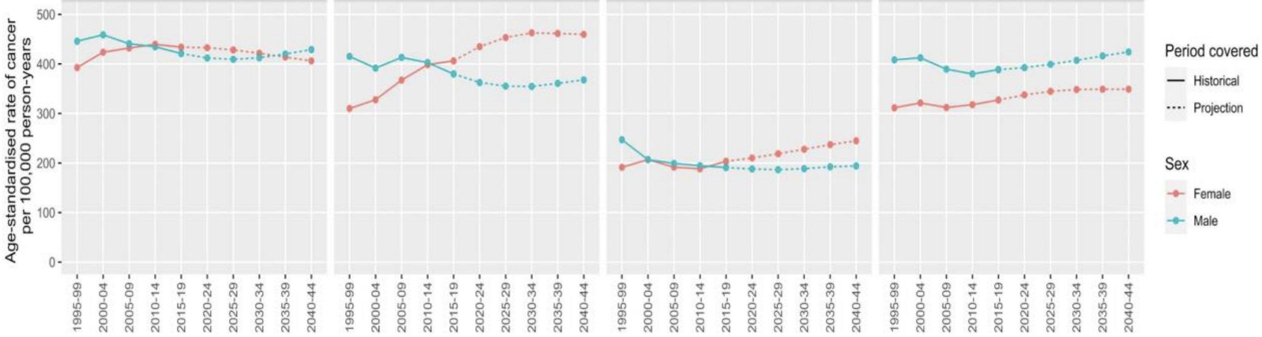


Chart 16: Age standardised cancer rate by ethnicity (Teng et al., 2024)

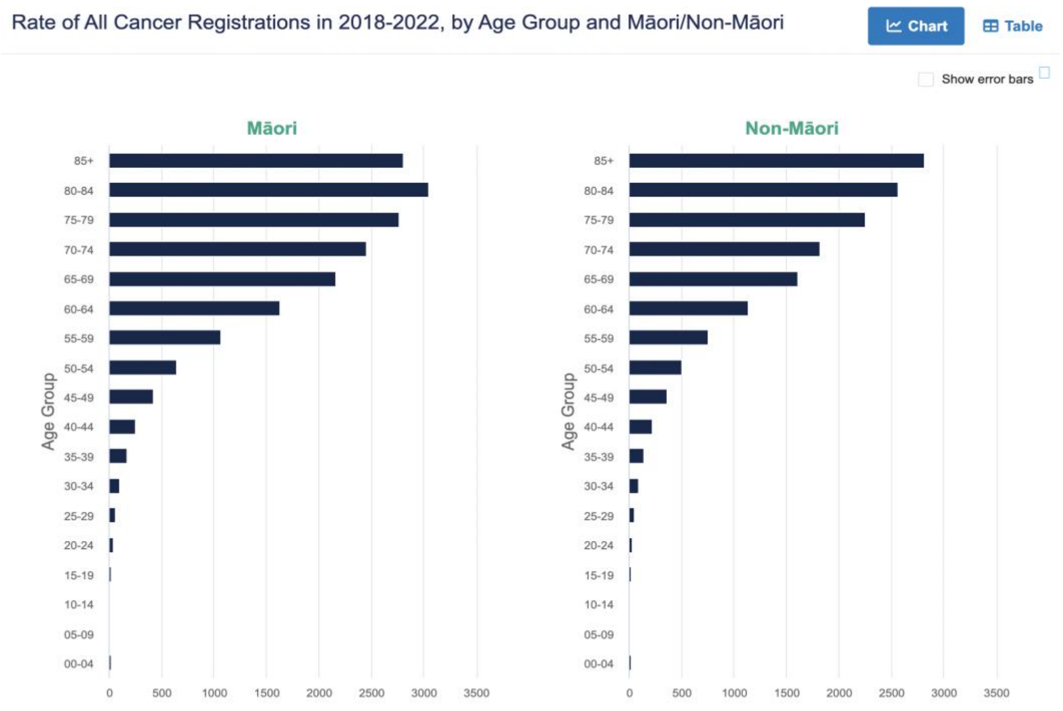


Chart 17: Cancer registrations rates Māori and non- Māori (Te Whatu Ora, n.d)

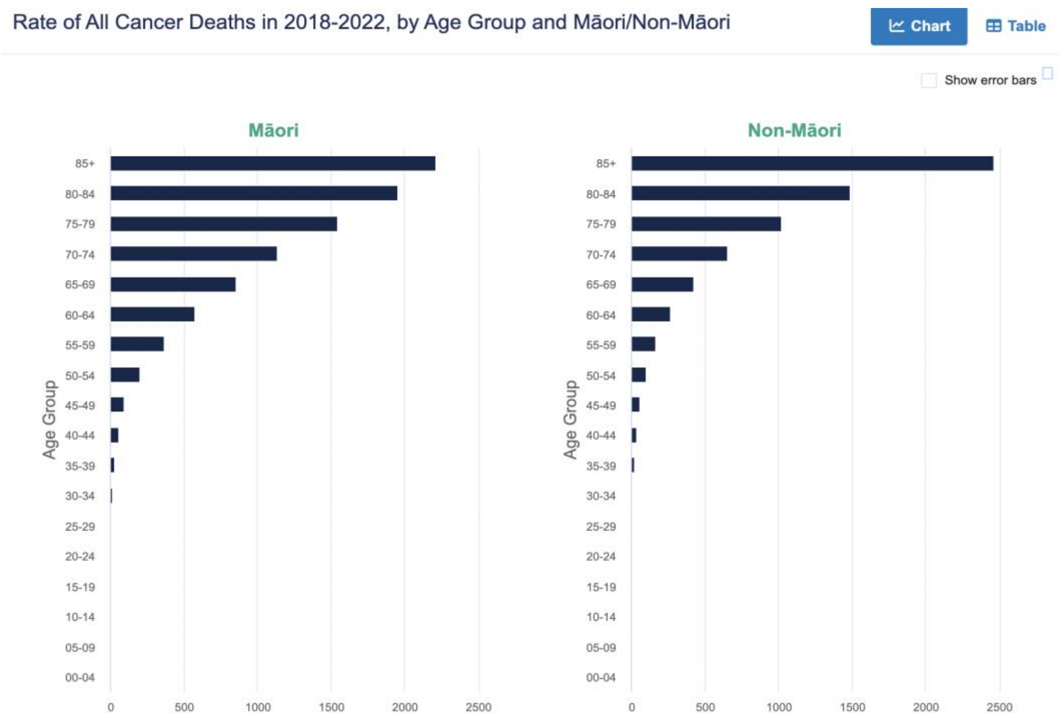


Chart 18: Cancer deaths rates Māori and non- Māori (Te Whatu Ora, n.d)

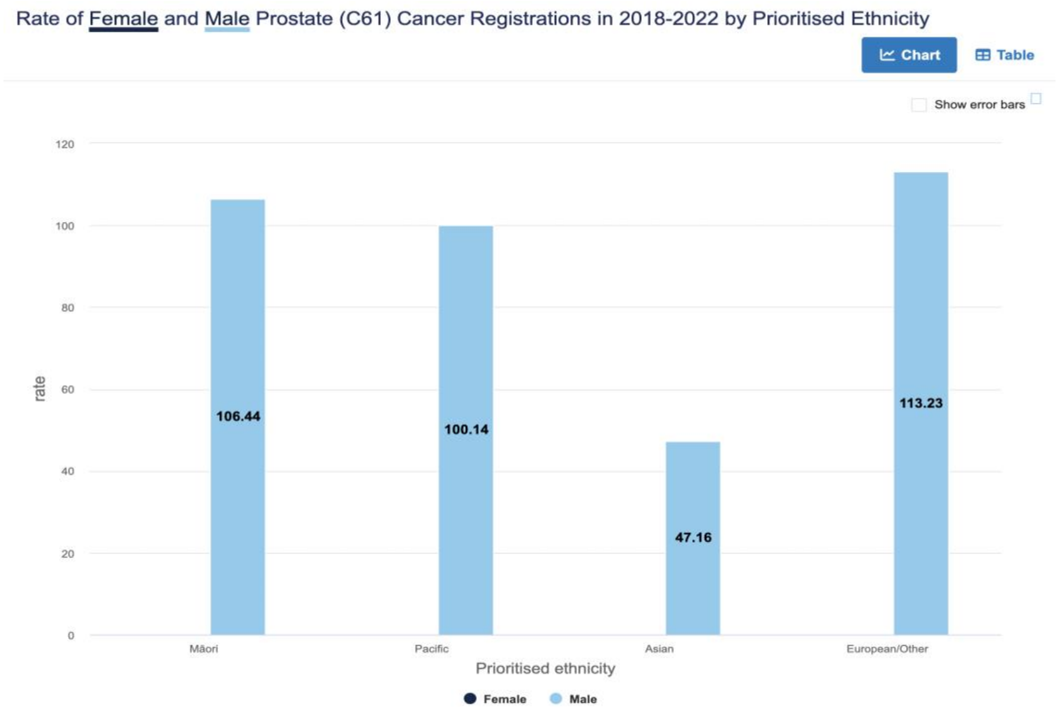


Chart 19: Prostate cancer registration rate (Te Whatu Ora, n.d)

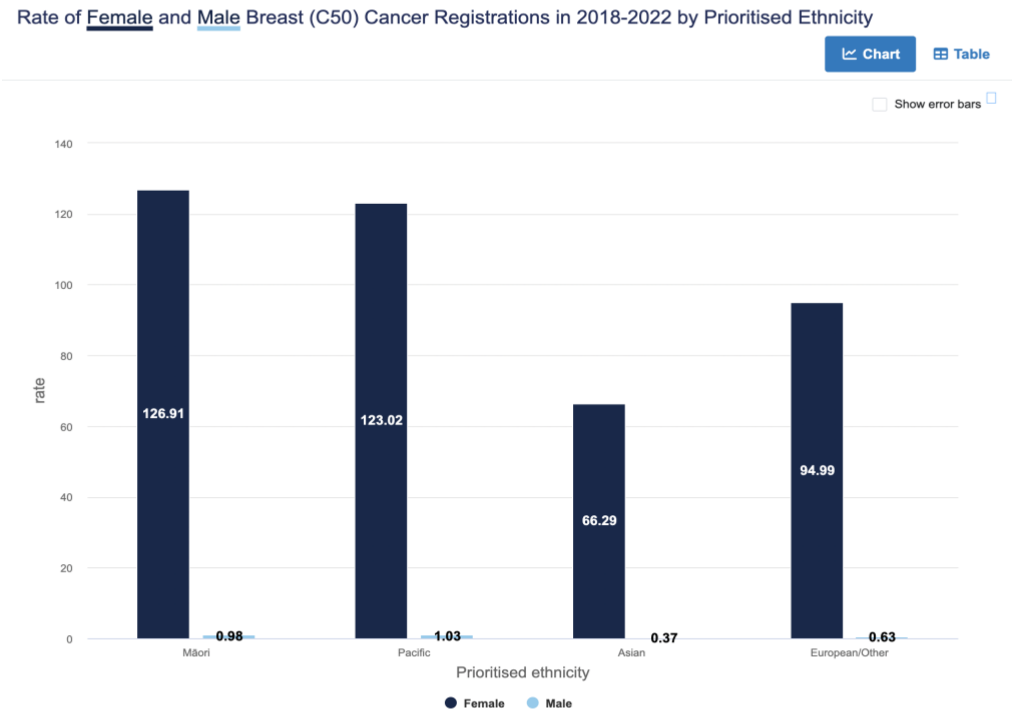


Chart 20: Breast cancer registration rate (Te Whatu Ora, n.d)

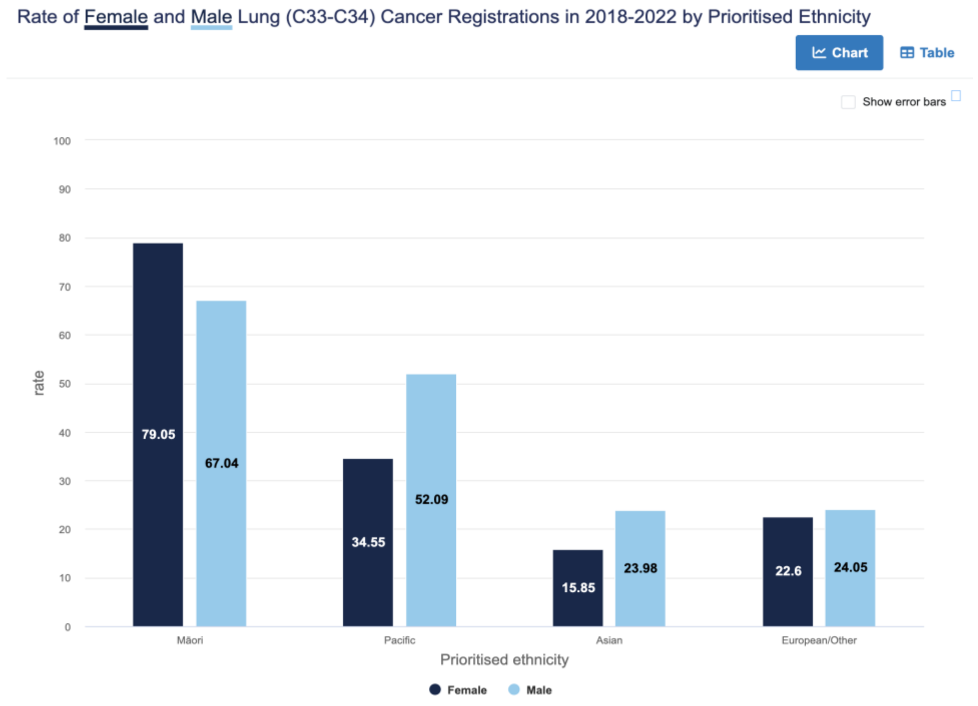


Chart 21: Lung cancer registration rate (Te Whatu Ora, n.d)

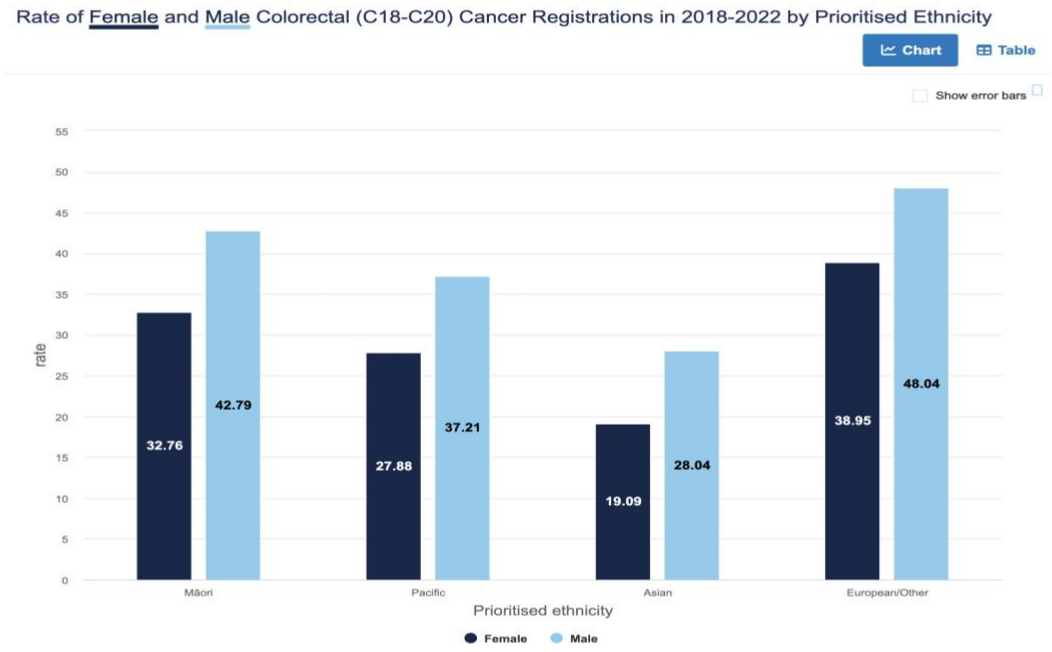


Chart 22: Colorectal cancer registration rate (Te Whatu Ora, n.d)

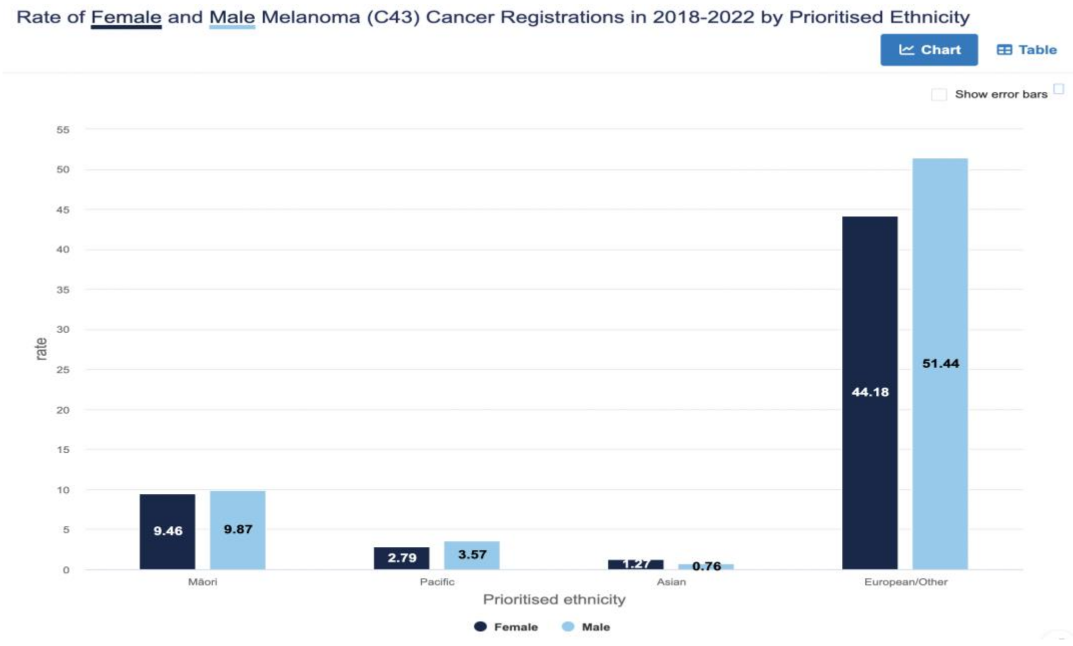


Chart 23: Melanoma cancer registration rate (Te Whatu Ora, n.d)

2.3.6 Prevalence of cancer based on age

Lastly, age is the final influential factor used to determine cancer prevalence and mortality in NZ. Age ranges in the registry were classified into different categories, namely ‘0 to 24’, ‘25 to 44’, ‘45 to 64’, ‘65 to 74’, and ‘Above 75’. Starting with the youngest age group, the top three most common cancer registrations amongst females aged between 0 to 24 are leukaemia, colorectal and brain, while the top three common mortality causes within the same age group are brain, leukaemia, and peripheral nerve cancers. Amongst males of the same age group, the top three common cancer registrations are leukaemia, testis, and brain, while the top three common cancers for mortality amongst males are brain, leukaemia, and connective tissue. On the contrary, common cancer types amongst people between the age of 25 and 75 was observed to differ from those below 25. However, cancer types remained fairly similar throughout the age ranges of 25 to 75, as well as between genders. The common cancer registrations for females between the age of 25 to 75 are breast, melanoma, colorectal and lung, while for males they are testis, prostate, colorectal, lung and melanoma. Common cancer types were also mostly similar in mortality, which includes colorectal, lung, breast for females, and on the other hand lung, colorectal and prostate for males.

People above the age of 75 had the highest recorded cancer registrations and death in comparison to other age ranges. Sarfati and Jackson (2020) explain that since there is a reduction in other causes of mortality such as cardiovascular diseases, the incidences of cancer amongst the older people are expected to increase. This could ultimately result in higher frailty and co-morbidity amongst cancer patients, which in turn also lead to increased treatment costs and complexity. Therefore, recognising the needs of patients from different age groups is crucial to providing person-centred and equitable care. The charts below illustrate the common cancer registrations and mortalities in different age ranges as well as genders.

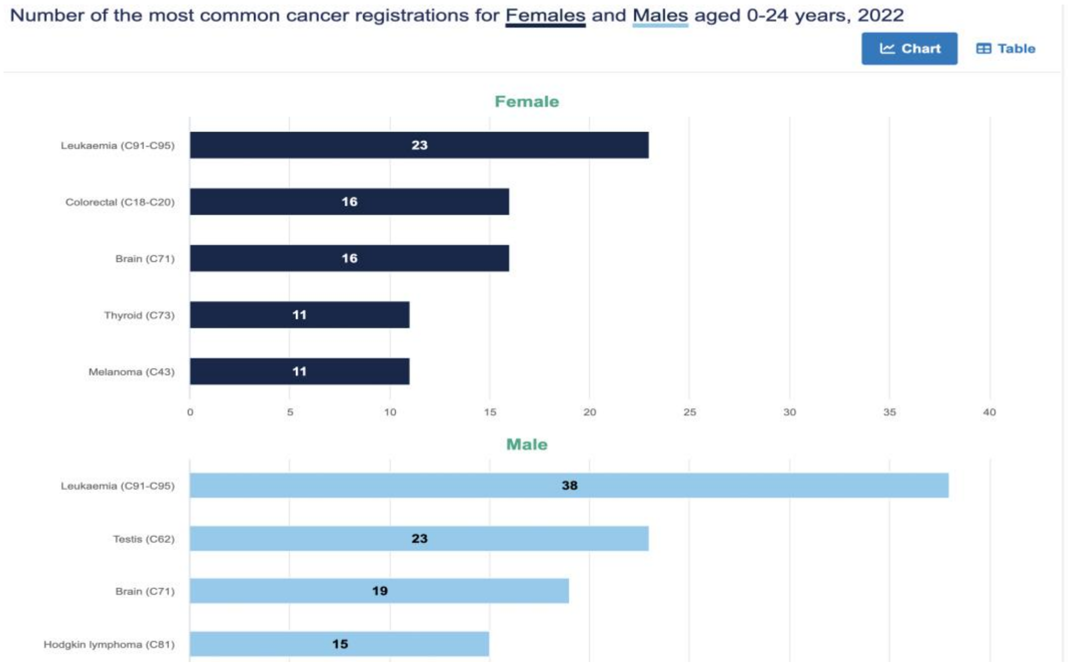


Chart 24: Common cancer registrations aged 0-24 (Te Whatu Ora, n.d)

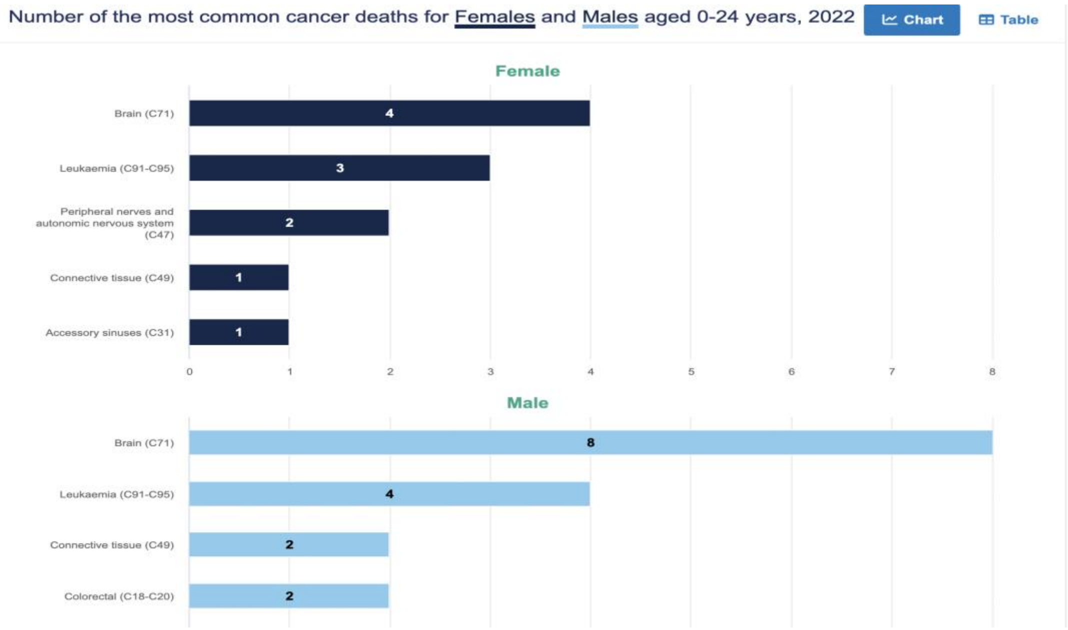


Chart 25: Common cancer deaths aged 0-24 (Te Whatu Ora, n.d)

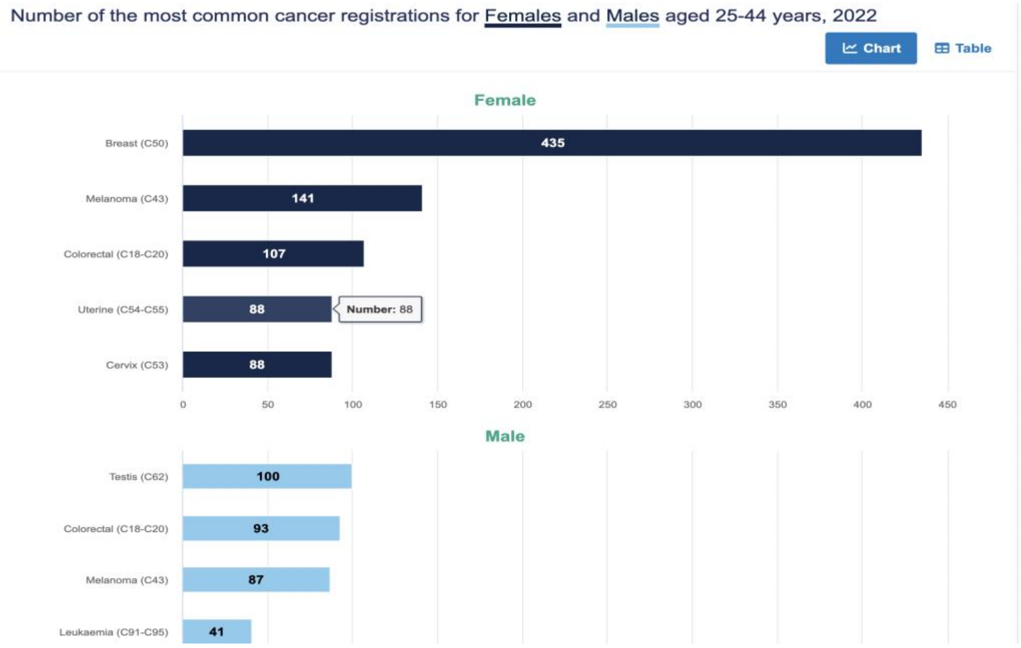


Chart 26: Common cancer registrations aged 25-44 (Te Whatu Ora, n.d)

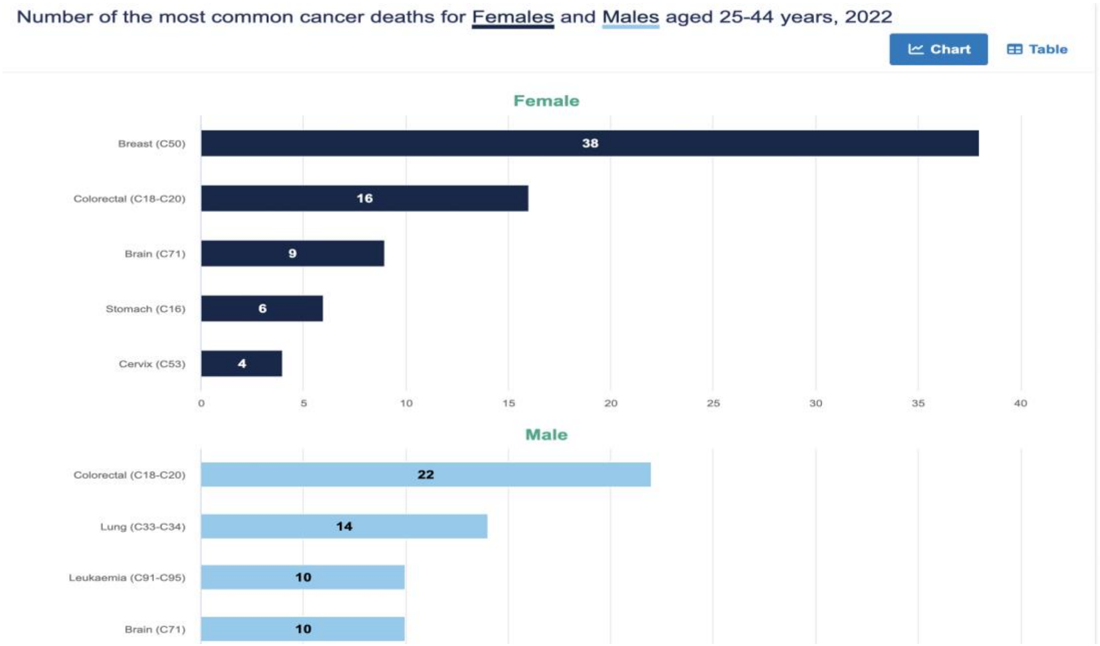


Chart 27: Common cancer deaths aged 25-44 (Te Whatu Ora, n.d)

Chart 28: Common cancer registrations aged 45-64 (Te Whatu Ora, n.d)

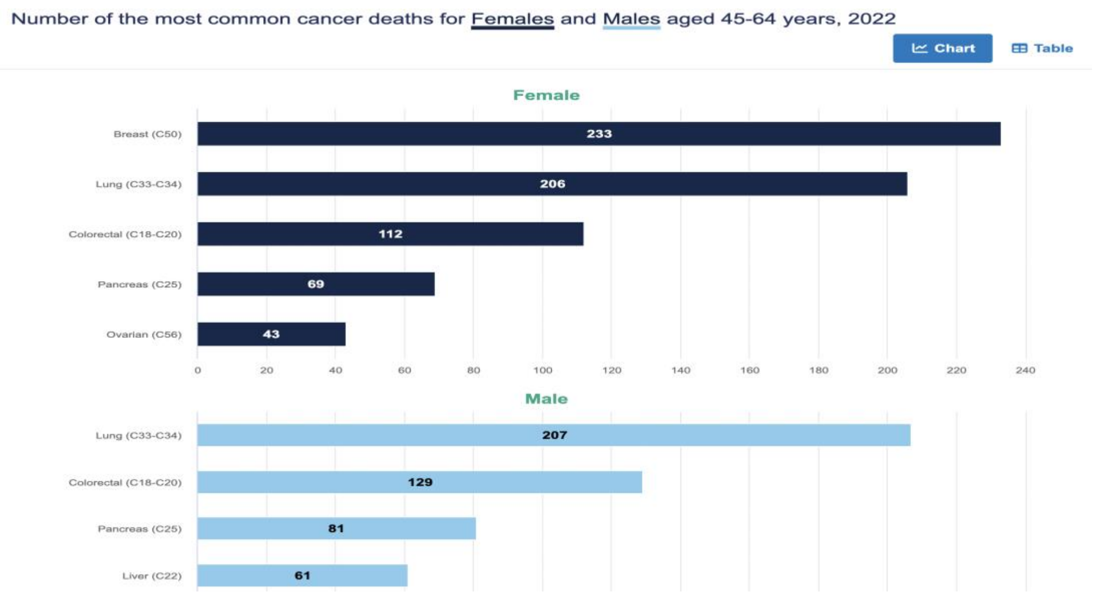


Chart 29: Common cancer deaths aged 45-64 (Te Whatu Ora, n.d)

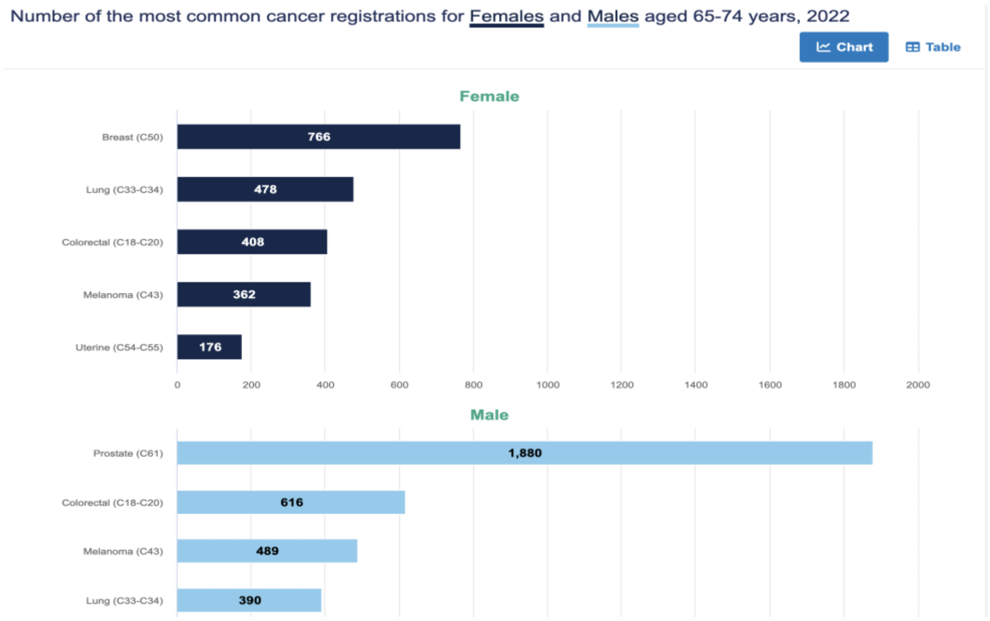


Chart 30: Common cancer registrations aged 65-74 (Te Whatu Ora, n.d)

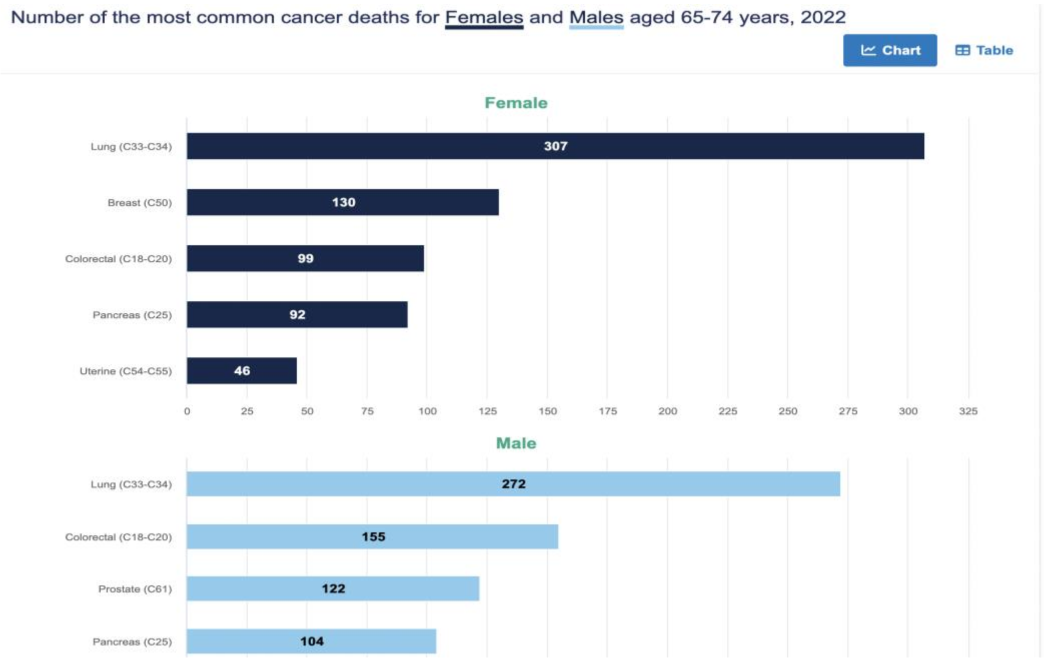


Chart 31: Common cancer deaths aged 65-74 (Te Whatu Ora, n.d)

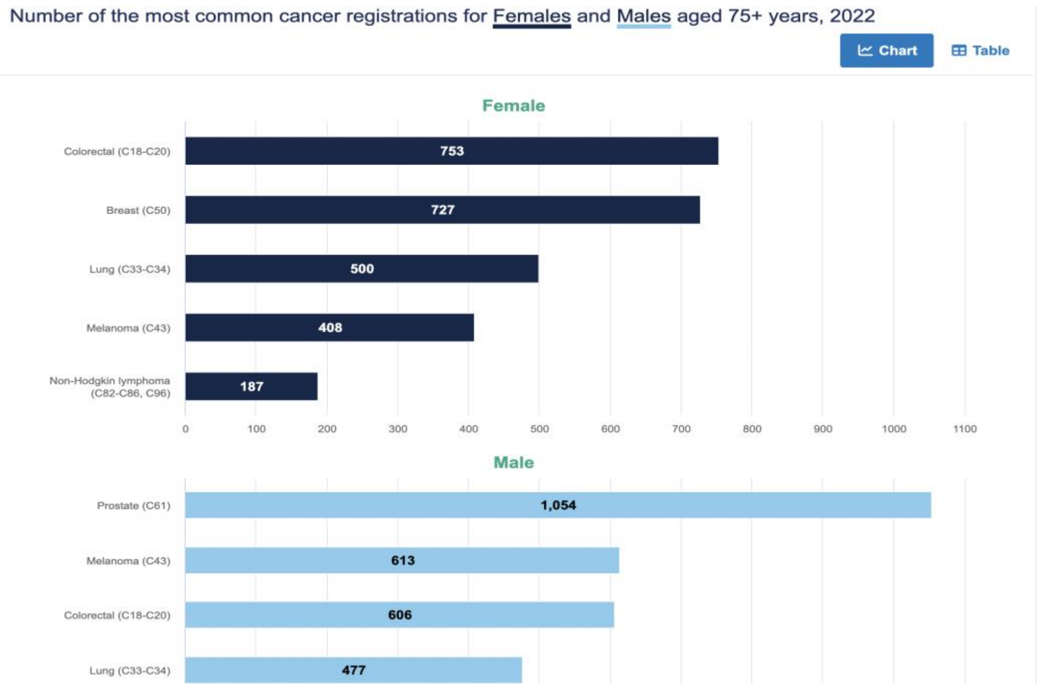


Chart 32: Common cancer registrations aged above 75 (Te Whatu Ora, n.d)

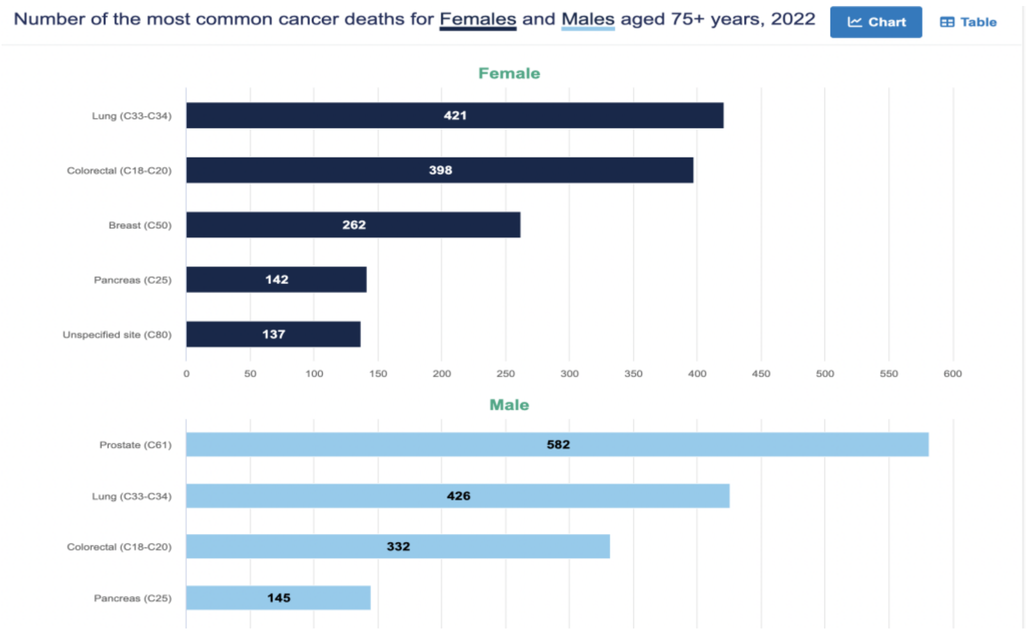


Chart 33: Common cancer deaths aged above 75 (Te Whatu Ora, n.d)

Overall, cancer survival has gradually improved over time, however ageing population, population growth, social and geographic inequities as well as gender and age-related risk factors still have an impact on the prevalence of cancer incidences and mortalities in NZ. Recognising the need to provide more person-centred and equitable care, NZ's healthcare system has put in place strategies to address disparities in hopes of minimising inequities. Therefore, in the next theme, this study will explore the historical context of equitable and person-centred care in NZ, as well as obstacles with regards to implementing them.

2.4 Obstacles to implementing Equitable & Person-Centred Care – Cultural competency

Te Whatu Ora (2025) defines equitable healthcare in NZ as care that acknowledges the unique needs of different people based on the levels of advantages they have in society. Healthcare approaches, methods, and resources should be tailored to cater and ensure that these needs are met accordingly. In efforts to attain equitable health care, health strategies have been put in place to provide a framework and guide for healthcare professionals. Some examples of equitable healthcare strategies are the 'National Health Strategy', 'Equity of Healthcare for Māori', 'The Guide to He Korowai Oranga Māori Health Strategy 2014', as well the 'Equity Work Programme' (Chin et al., 2018). These strategies aim to obtain equitable healthcare by working towards optimal health outcomes for all, regardless of socioeconomic status, cultural background, age, gender, or other factors. In these strategies, collaborative partnerships are fostered with various organisations and communities, to lead and advocate for health promotion, rehabilitation, enhanced access to quality services and education, as well as monitoring and evaluating of health outcomes (Chin et al., 2018). Apart from equitable healthcare, person centred health care is also another crucial aspect to achieving quality healthcare in NZ. The New Zealand Nursing Organisation (NZNO) refers to person centred care as care that incorporates a holistic approach, recognising that health is interconnected with the physical, psychological, and social aspects of a person. It also highlights the importance of adopting the perspective of seeing a patient as a person, therefore advocating for the inclusion of patient engagement and autonomy. This ensures that patients' preferences and values are respected and accounted for (NZNO, 2014). The NZNO suggests that implementing models of care that emphasises person-centred care will strengthen its application in practice. Examples of these models include the Māori models of health such as 'Te Whare Tapa Whā', 'Te Wheke', and 'Te Pae Mauhtonga' (MOH, 2017). These models provide a guide for healthcare professionals by breaking down the definition of person-centred care into several key components that can be used to assess a person's overall wellbeing. Obtaining equitable and person-centred healthcare in NZ is pivotal as it not only has a major impact on health outcomes but also minimises prejudice and injustice in healthcare. In addition, it also honours the 1840 Te Tiriti o Waitangi - Treaty of Waitangi, which is imperative in upholding equitable healthcare for Māori (Gustafson et al., 2024).

Despite these efforts, obstacles, and challenges to attaining equitable and person-centred care in NZ still prevail. The World Health Organisation suggests that equitable and person-centred healthcare comprises of more than just determinants of heath (Chin et al., 2018). It also calls for the need to remove barriers to human rights such as prejudice and poverty, lack of access to fair employment, quality education and housing, as well as a safe environment. However, Chin et al. (2018) points out that socioeconomic status, education, community, access to services and living environment still make up most of the causes for inequities in NZ's healthcare. Other factors also include the lack of quality health education, repercussions of colonialism on Māori culture as well as insufficient cultural competence amongst healthcare providers. Another study done by Kanengoni-Nyatara et al. (2024) revealed similar findings especially amongst migrants and refugees in NZ. The study classified these barriers into two categories namely, values and beliefs, as well as structural barriers. Barriers with regards to values and beliefs included insufficient healthcare providers that were able to provide culturally competent care, prejudice by healthcare professionals and other social factors such as cultural norms and knowledge deficit. On the other hand, structural barriers refer to policies and guidelines that put people at a disadvantage to access resources and services (Kanengoni-Nyatara et al., 2024). This consists of language barriers, healthcare cost, waiting and allocated times for healthcare services, as well as lack of health literacy. The study also adds that insufficient quality data on ethnic minorities such as Asians, Pacific Islander and refugees have led to the lack of prioritisation of health for these populations.

In both studies, the lack of cultural competence has been identified as one of the main key components in preventing the delivery of equitable and person-centred care within NZ's healthcare services. This results in diminished trust and satisfaction amongst patients in the health system (Chin et al., 2018; Kanengoni-Nyatara et al., 2024). Kanengoni-Nyatara et al. (2024) also points out that healthcare professionals themselves have expressed their struggle with feeling unprepared and unconfident in providing culturally competent care, especially when faced with complex health needs. This is supported by findings from a study done by Komene et al. (2023), which concluded that nurses in general lacked sufficient understanding of NZ's culture especially amongst internationally qualified nurses. In addition, even with health models and practice guides in place that aim to improve cultural awareness, the lack of ongoing support and professional development for nurses led to inconsistent application due to diminished understanding of the models. Cultural competency as described by Stubbe (2020) refers to the necessity for healthcare providers to have awareness, responsiveness and respect for the cultural perspectives and backgrounds of patients, including beliefs, values, cultural norms, language, socioeconomic status, preferences, and expectations. In other words, it involves making the patients the main focus of care delivery, ensuring that there are purposeful partnerships and engagements to identify and address inequities and needs. Without integrating understanding, awareness, partnership and engagement with patients, a top-down approach to delivery of care is often unsuccessful and flawed (Chin et al., 2018).

Recommendations to address this barrier involves integrating culture, history, and values of patients into healthcare processes and care (Kanengoni-Nyatara et al., 2024). Komene et al. (2023) also proposed the incorporation of organisational models and values that focuses on building connections and engaging patients. This indicates that having clarity and understanding patient's and nurses' perspective and expectations with regards to healthcare would be a beneficial first step to addressing barriers to implementing cultural competency, strong connections, and patient engagement in a way that meet patients' needs. Therefore, the following theme will provide a more in-depth overview of the relevance of patient's and nurses' perspective in achieving person-centred and equitable cancer nursing care.

2.5 Patients and Nurses perspective and expectations

The term perception or perspective derived from the Latin word 'perceptio', meaning to gather or receive. Tarafder (2024) therefore refers to perspective as the interpretation and representation of sensory information gathered, through recognition, construction, and analysis. In other words, perspective can also be described as an individual's reality and how they make sense of the world. It is influenced by values, beliefs, cultural norms, age, educational level, health literacy, socioeconomic status as well as past experiences with healthcare services (Tarafder, 2024). Whereas expectations are defined by Lakin and Kane (2022) as anticipatory standards that are used to determine the performance of care provided currently or in the future. Contrary to perspective, which can be affected by an individual's past experience, expectations determine how a patient or nurse will experience future care received or provided respectively (Lakin & Kane, 2022). Regardless, both are vital when it comes to achieving equitable and person-centred cancer nursing care as it increases patient engagement and autonomy. Several studies have demonstrated its importance and relevance which will be further discussed in this theme.

Tarafder (2024) highlights that the perceptions and expectations of patients are fundamental when it comes to improving the quality of healthcare at a national and global level. Saribudak (2023) adds on to this by explaining that gathering and analysing the perspectives and expectations of cancer patients can aid in informing how nurses should carry out their nursing care, to ensure that patients' needs are met. In the same way, nurses should also be aware of factors that can impact person-centredness and equity when providing care so that barriers can be addressed (Kannappan et al., 2022). However, there is currently still insufficient clarity in research and literature worldwide, including NZ, exploring the details and possible differences between the perspectives and expectations of both patients and nurses. (Vujanic et al., 2022). Vujanic et al. (2022) further elaborates by stating that based on their study, nurses in general have been observed to be more focused on their tasks, rather than considering patients' perspectives and expectations. This difference could possibly point to a knowledge deficit amongst nurses with regards to patients' perspective and expectations. Therefore, identifying and addressing these barriers is vital to not only minimise misunderstandings between patients and nurses, but also aid the healthcare system and policy makers in reducing barriers in cancer management (Vujanic et al., 2022; Obaid et al., 2023). In addition, this would also deepen the understanding between nurses and patients, increasing patient satisfaction and better patient nurse relationships that is based on trust (Obaid et al., 2023). All of which would lead to improved person-centredness and equity in cancer nursing within NZ. With this understanding in mind, the following section of this literature review would aim to explore in detail the perspectives and expectations that cancer patients and nurses have in NZ with regards to person-centredness and equity.

Part 2: Research underpinning study

3.1 Introduction

This section of the literature review aims to explore the perspective and expectations of cancer patients and nurses in NZ utilising the semi-systematic literature review approach. Literature collected will be critically analysed and synthesised with the purpose of informing how the subsequent research should be carried out. While semi-systematic reviews do not incorporate strict processes like systematic reviews, it is still crucial to outline and justify inclusion and exclusion criteria, key terms, as well as scope of literature search (Sukhera, 2022). Therefore, research underpinning this study will be structured around describing in detail the method and process in which literature is obtained, analysed, and synthesised. This includes search terms and diagrams, databases, inclusion, and exclusion criteria, as well as a summary of the literature.

3.2 Search Strategies

Search strategies were incorporated in this study to identify literature that explores the perspectives and expectations of cancer patients and nurses, in relation to person centred and equitable care. Search strategies provide a transparent and clear process on how literature is identified, selected, analysed, and applied (Cooper et al., 2018). This is illustrated using a modified Preferred Reporting Items for Systematic Reviews (PRISMA) diagram as shown in Figure 1. Although a PRISMA diagram is primarily used in systematic reviews, a modified version was utilised in this study to provide a clear flow of how literature was identified.

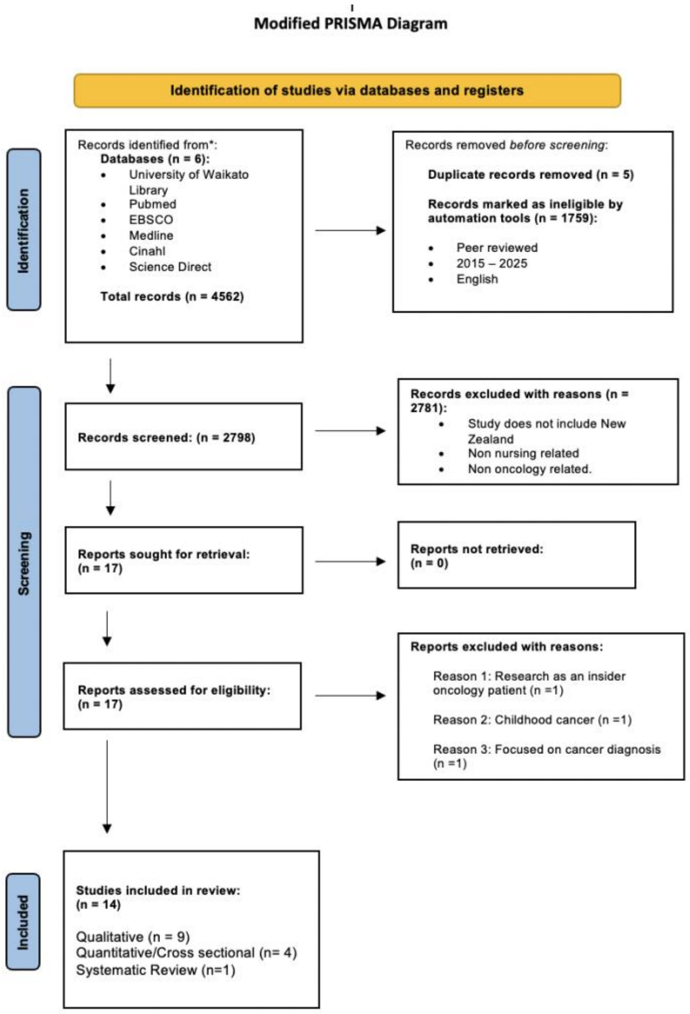


Figure 1 **Modified Preferred Reporting Items for Systematic Reviews (PRISMA) diagram**

Note: Diagram adapted from PRISMA Group. (2020). PRISMA 2020 flow diagram. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). Retrieved July 5, 2025, from https://www.prisma-statement.org/prisma-2020-flow-diagram

Firstly, search terms were formulated based on the topic of interest, to ensure that the literature yield would be relevant to this study. Search terms included are ‘cancer patients’, ‘perspective’, ‘expectations’, ‘cancer nurses’, ‘person-centred’, ‘New Zealand’ and ‘equity’. In addition, Boolean operators, and truncations, such as ‘AND’ and asterisks were used to widen the extent of the search. Based on the search from several databases including the University of Waikato’s library, Pubmed, CINAHL, EBSCO, Medline and Science Direct, 4562 articles were generated as the initial yield. Filters were then added to ensure that articles identified were peer reviewed, within ten years and in English. These filters ensure that articles selected are reliable, current, and comprehensible. Although the ideal timeframe for literature is within five years, a timeframe of ten years was used instead to include a wider scope of studies. Duplicated articles were removed thereafter, leaving 2798 articles for screening. Inclusion and exclusion criteria were then put in place as shown in Table 1 below, to further narrow down articles that would be relevant to this study. Articles that were relevant to cancer or oncology, nursing care, patients and nurses' perspectives or expectations, and New Zealand were included for further screening, while other articles were excluded. A total of 17 articles were identified with full texts available. Upon further review of the 17 articles, three more articles were subsequently excluded as they were either about childhood cancer, more focused on cancer diagnosis than nursing care or was related to the perspectives of a cancer patient as a researcher. The remaining 14 articles consisted of nine qualitative articles, four cross-sectional or quantitative and one systematic review. Out of these 14 articles, nine focused on patients' perspectives and expectations, four focused on nurses' perspectives and expectations, and one covered both patients and nurses. These articles were then reviewed, critiqued, and summarised. The synthesis of these articles will be further discussed in the next section.

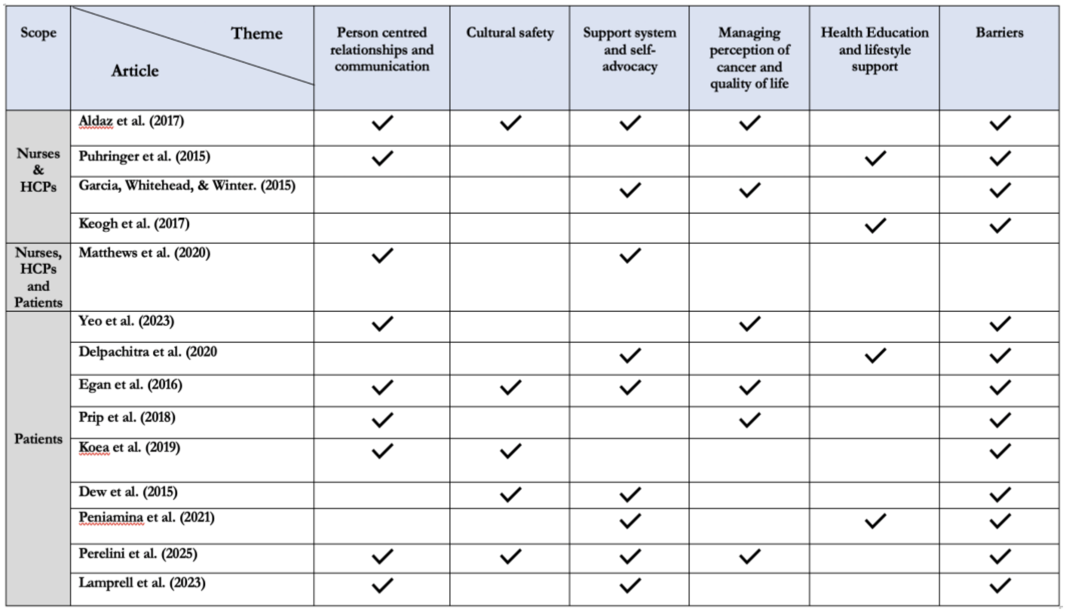
Table 1 Inclusion and exclusion criteria of literature search

Inclusion Criteria	Exclusion Criteria
● Peer reviewed ● Within 10 years ● Full texts ● Journals ● English ● Relevant literature: - Oncology/Cancer - Patients and nurses - Nursing care - Perspectives of cancer care - Expectations of cancer care - Adult patients - New Zealand	● Non peer reviewed ● Not within 10 years ● No Full text ● Other sources (Magazines, newspapers, pamphlets, encyclopaedias, editorials, books, dissertation) ● Non-English literature ● Non relevant literature - Childhood - Non- oncology - Non nursing care related. - New Zealand not included.

3.3 Literature synthesis – Integrative review

Within the overarching umbrella of semi-systematic review, there are several subtypes of reviews that can be used to help better synthesise and analyse literature collected. One of which is known as the integrative review approach. Sukhera (2022), justifies that integrative reviews are commonly utilised when literature collected are of varying methodologies and theories. It aids in synthesising and appraising the quality of data across different literature by identifying key themes, recognising gaps, and creating connections between the literature, with the purpose of gaining new insights and informing future studies (Christmals & Gross, 2017). Therefore, it was deemed relevant to this literature review as the 14 articles selected for review contained literature of different methodologies. Summary tables were made for each article to allow clearer and more in-depth analysis. Each table included the article's title, author, date, findings, strengths, limitations as well as key ideas or themes (Appendices 1 to 14). The Joanna Briggs Institute (JBI) critical appraisal tool was also used in conjunction, to identify gaps in the literature selected and increase rigor and reliability in this study. The JBI critical appraisal tool was utilised as it provided the researcher with a validated and evidence-based instrument to analyse the quality of the articles identified (Munn et al., 2019). In addition, Long et al. (2020) also justifies that JBI is more sensitive to validity than compared to other tools. Appraisals for each article can be found in Appendices 15 to 28. Across all 14 articles, six key themes emerged, namely 'Person centred relationships and communication', 'Cultural safety', 'Support system and self-advocacy', 'Managing perception of cancer and quality of life', 'Educational and lifestyle support' and 'Barriers' (Table 2). Each key theme will be further discussed to show the perspectives and expectations of patients and nurses in relation to cancer care.

Table 2 Literature review key themes



Scope	Theme / Article	Person centred relationships and communication	Cultural safety	Support system and self-advocacy	Managing perception of cancer and quality of life	Health Education and lifestyle support	Barriers
Nurses & HCPs	Aldaz et al. (2017)	✓	✓	✓	✓		✓
	Puhringer et al. (2015)	✓				✓	✓
	Garcia, Whitehead, & Winter. (2015)			✓	✓		✓
	Keogh et al. (2017)					✓	✓
Nurses, HCPs and Patients	Matthews et al. (2020)	✓		✓			
Patients	Yeo et al. (2023)	✓			✓		✓
	Delpachitra et al. (2020			✓		✓	✓
	Egan et al. (2016)	✓	✓	✓	✓		✓
	Prip et al. (2018)	✓			✓		✓
	Koea et al. (2019)	✓	✓				✓
	Dew et al. (2015)		✓	✓			✓
	Peniamina et al. (2021)			✓		✓	✓
	Perelini et al. (2025)	✓	✓	✓	✓		✓
	Lamprell et al. (2023)	✓		✓			✓

3.3.1 Person centred relationships and communication

Person centred relationships and communication in this context refers to the establishment of rapport and communication between patients and nurses in a way that meets patients' needs. Out of 14 articles, nine of them mentioned the importance of having person centred relationships and communication between cancer patients and nurses. Six of the nine articles focused on patient's perspectives and expectations, while the remaining three revolved around healthcare professionals, including nurses. The study done by Koea et al. (2019) which explores cancer patients' experiences in the Waitemata region, supports this by demonstrating that patient satisfaction and nursing performance improved in areas where there was increased person-centred communication and care. Studies done by Prip et al. (2018) and Lamprell et al. (2023) also showed that patients perceived person-centredness and patient engagement as a crucial aspect of the care that they receive. Person-centred relationship involves including patients as well as their values, preferences, and priorities when making decisions about their treatment (Prip et al., 2018; Yeo et al., 2023). Prip et al. (2018) further expands on this by stating that patients found it valuable when health care professionals, including nurses, demonstrate good interpersonal skills such as being caring, trustworthy and compassionate, while also addressing patients by their preferred name. This is supported by studies done by Egan et al. (2016) and Perelini et al. (2025), which indicated that empathy, compassion, and respect increased positive experiences amongst patients. Despite this, Prip et al. (2018) highlighted that only half of their study's participants were included in treatment plans and decision making. When reviewing articles that explored the perspectives and expectations of nurses with regards to person-centred relationships, only one study done by Matthews et al. (2020) clearly mentioned that healthcare professionals, including nurses perceived creating person-centred relationship as an important aspect of cancer care. Healthcare professionals recognised the significance of taking time to understand patients' priorities, and attended to their needs accordingly, as they perceived that it was their role to establish person-centred connections. While the study done by Aldez et al. (2017) did not specifically mention how nurses perceive person centred relationships, it did illustrate that nurses recognised how empathetic conversations, being caring, and building rapport supported patients in meeting their emotional needs. This demonstrates that both patients and nurses value person-centred relationships. However, the inconsistency amongst nurses when it comes to involving patients in decision making, suggests that nurses may not fully understand how important building person-centred relationships is to patients, or there may be barriers that prevents them from doing so.

Moving on to person-centred communication, patients in Prip et al. (2018) study believe that nurses play a vital role when it comes to communicating information on treatment plans and adverse effects, as it helps to allay anxiety and encourage better coping mechanisms during treatment. This can be achieved by delivering information to patients based on their preferences and needs, such as using visual aids, providing resources in patients' spoken language, and avoiding medical jargons (Egan et al., 2016; Perelini et al., 2025). Lamprell et al. (2023) and Prip et al. (2018) further adds on by showing that patients also valued nurses or healthcare providers who are able to engage in meaningful conversations, practice active listening and maintain eye contact. However, Prip et al. (2018) argues that patients' needs are not adequately met when it comes to person-centred communication. In comparison to the perspectives and expectations of nurses, Matthews et al. (2020) illustrates that healthcare professionals including nurses recognises the importance of their role in providing information to patients in a way that is person-centred. An example provided by Aldez et al. (2017) and Matthews et al. (2020) describes healthcare professionals including nurses accurately assessing the amount of information patients require at any given time and providing it according to patients' preferences, with the aim of minimising information overload. This not only helps to build rapport, but also reduces anxiety amongst patients. However, healthcare professionals and nurses still perceive that improvements in communication are still needed to ensure patients' needs are met, especially when it involves communicating patients' needs to other teams, such as the chaplaincy service (Puhringer et al., 2015; Aldez et al. 2017). These findings indicates that while both patients and nurses recognise the importance of person-centred communication, they also acknowledge that improvements are still needed to ensure that needs are adequately met.

3.3.2 Cultural safety

Cultural safety in this literature review is referred to as cancer care that is provided by nurses in a way that makes patients feel safe and respected. Out of the four articles that explored nurses and healthcare professionals' perspectives and expectations, only one article discussed cultural safety and its influence on cancer care. Aldez et al. (2017) reviewed the use of modern and alternative medicine in their study and concluded that healthcare professionals including nurses recognised the potential benefits of incorporating alternative and traditional medicine in care to reduce anxiety as well as improve overall patient outcome during and post treatment. However, despite acknowledging its advantages, they remained sceptical about its use due to misinformation and negative perceptions from previous marketing scams and lack of regulation.

While on the other hand, about half of the articles exploring patients' perspectives and expectations discussed the significance of cultural safety when patients receive cancer care. Firstly, Dew et al. (2015) emphasized that patients should receive care in a way that is appropriate to their cultural needs. This is because the lack of cultural awareness, safety and competence can lead to needs being neglected, which ultimately results in conflicts. The study done by Egan et al. (2016) explored the experiences of cancer patients in NZ and discovered that patients valued being able to express their cultural practice during treatment, as it had a significant impact on how they perceived and experienced cancer treatment. Patients also perceived spiritual health as an important aspect of cultural safety but felt that it is sometimes overlooked by nurses and healthcare professionals. This is supported by Perelini et al. (2025) which explained that spirituality and Christian faith was a vital cultural aspect for Pacific Islander cancer patients as it brought them much needed hope, strength, and comfort. The study also showed that patients appreciated having nurses and healthcare professionals who are of similar cultural background and are also able to converse in the same language. Koea et al. (2019) concurs with this finding by highlighting that Māori patients valued having support from nurses and healthcare professionals of similar cultural background. Despite patients' expectations and perceived significance of cultural safety, Perelini et al. (2025) shared those patients feared the judgements of healthcare professionals and nurses, and therefore refrained from revealing that they often sought traditional medicine. On top of that, patients also felt that information delivered to them is sometimes provided in a culturally insensitive manner, even though the diagnosis of cancer itself has imposed already emotional and mental distress. This suggests that there could be misalignments in the perspectives and expectations of patients and nurses with regards to cultural safety. Nurses in this review regarded cultural safety as the inclusion of alternative medicine, while patients valued having access to healthcare professionals with similar cultural background, culturally safe communication, as well as the ability to be able to express their spirituality.

3.3.3 Support system and self-advocacy

Support system in this review refers to the support accessed by patients and nurses, which includes whānau, friends, allied health professionals, as well as other support resources. Self-advocacy is described as patients' willingness and capability to share their concerns and speak up for themselves in order to receive support. Majority of the articles discussed how access to support and patients' self-advocacy had an impact on how care is provided and received. Aldez et al. (2017) points out that healthcare professionals including nurses recognise the importance of social support in reducing emotional distress amongst patients. However, they believe that there is a lack of access to psychosocial support post treatment in public. In addition, healthcare professionals including nurses also felt that some patients lack the insight and incentive to receive help and would be reluctant to engage with support if they perceive that their complex concerns cannot be adequately addressed or resolved. On top of that, nurses also felt that patients may get offended and reject emotional support due to the stigma of mental health. Garcia et al. (2015) explored the perceptions of cancer nurses on pain in an oncology ward in NZ and concluded that pain management not only requires support from nurses and healthcare professionals, but also the engagement of patients. Nurses recognised the significance of psychological support, as well as the support and role that other healthcare professionals, such as the palliative team, can provide when managing cancer pain. However, pain management becomes a challenge when nurses face high work demands, and patients' fear potential addiction and side effects that come with treating pain. Apart from seeking the support of fellow healthcare professionals, Matthews et al. (2020) also demonstrated that nurses and healthcare professionals recognise the significant role whānau and caregivers play in supporting patients. This includes psychological support that patients receive when receiving bad news or retaining information in meetings.

When comparing this to the perception and expectations of patients, the study done by Lamprell et al. (2023), which explored the experiences of early onset colorectal cancer patients, illustrates that self-advocacy was the primary influencing factor determining whether patients' needs were met. Patients themselves could jeopardise access to support due to the lack of self-advocacy. An example mentioned was that younger patients were more likely to feel that they did not fit the criteria for support if treatment side effects were not severe enough. This therefore impeded self-advocacy and access to support and help. Findings from the study done by Delpachitra et al. (2020) supported this claim as well. When analysing patients' preferences for sleep management, the study found that patients with severe insomnia symptoms such as daytime sleepiness and fatigue were more likely to seek intervention and advocate for help and support. Lamprell et al. (2023) also mentioned that patient perceive that family and friends play a crucial role in supporting them emotionally. Similar findings were also found in studies by Egan et al. (2016) and Perelini et al. (2025). Perelini et al. (2025) explains that Samoan and Tongan cancer patients regarded immediate family, extended family, and the church community as crucial emotional, physical, and financial support systems. Egan et al. (2016) also shared that cancer patients in NZ view support from whānau and friends as a vital aspect during treatment and to help them better understand their cancer. However, the level of engagement with whānau and friends depended on how dire they perceived their diagnosis and prognosis to be. Patients with no outside support would instead seek resilience within themselves or other forms of self-care such as through prayer or spirituality. Besides the support from whānau and friends, Egan et al. (2016) explained that patients also appreciated having supportive employers and a work environment that can empathise with their cancer journey and treatment. This is because patients believe in the significance of being able to continue contributing to household income. The study done by Dew et al. (2015), explored the experiences of Māori cancer patients and discovered that there are disparities between the cultural practices and expectations of Māori patients, and the healthcare system. These differences have an impact on how Māori patients self-advocate and engage with the healthcare services. Similarly, a study done by Peniamina et al. (2021) explored the perspectives of patients in NZ with regards to food and nutrition and concluded that due to the lack of awareness and support, Māori and Pacific Islander patients were less likely to actively self-advocate and seek support for optimal nutrition on their own as compared to NZ Europeans.

While it was prominent that patients' self-advocacy had significant influence on the access to support, these studies reveal that nurses had limited awareness on the different barriers that prevent patients from raising concerns and advocating for themselves. Without having this awareness, nurses would not be able to address the barriers or promote self-advocacy, thereby impacting delivery of person-centred and equitable care.

3.3.4 Managing perception of cancer and quality of life

Perception of cancer and quality of life in this review refers to how patients and nurses view cancer and its impacts on daily living. Based on the literature selected, there is an equal ratio of articles exploring patients' and nurses' perspectives on cancer and quality of life. Aldaz et al. (2017) showed that healthcare professionals including nurses believed that if patients maintained a positive mindset, they would be able to get through treatment more easily. Whereas on the other hand being in denial or suppressing emotions could lead to unwanted repercussions and more post treatment complications, such as feelings of desperation and emotional distress. In addition, healthcare professionals including nurses felt that when patients remained in denial, it impeded rapport building and treatment delivery as it reduces the effective use of time with patients especially if there are time constraints. Garcia et al. (2015) also illustrated that some nurses in their study perceived cancer as an incurable illness and that managing cancer pain is complex, challenging, and futile because it differs from patient to patient. Despite staying committed to achieving optimal outcomes for patients, nurses still felt helpless and disheartened, as the complexity of managing cancer care demanded more time than they could provide.

Cancer patients also had a similar perspective of cancer and its effects on daily living. Egan et al. (2016) presented in their study, that patients believed having a positive attitude and environment significantly helped them get through cancer treatment more smoothly. By incorporating forward thinking, patients felt that they are better able to overcome the challenges of cancer treatment and create a more enriching outlook of their future and life. Prip et al. (2018) presented similar findings by showing that patients in their study felt having hope and positivity was crucial to cope with cancer. Yeo et al. (2023) also adds on by showing that patients valued treatment that could provide better prognosis and remission duration, while also incurring minimal impact to their overall well-being and daily lives. However, Perelini et al. (2025) portrayed a different perspective of Samoan and Tongan patients, portraying that they feared and believed cancer is equivalent to death. This belief was influenced by upbringing, educational level, ethnicity, and severity of cancer. To aid patients in managing and coping with the perception of cancer, Yeo et al. (2023) explains that there is a need for healthcare professionals including nurses to help encourage and strengthen hope when interacting with patients. This demonstrates that even though both patients and nurses see the importance of maintaining a positive mindset, barriers such as workload prevents nurses from providing patients with sufficient support.

3.3.5 Educational and lifestyle support

Educational and lifestyle support refers to education and educational resources that help patients live a lifestyle that would best support their well-being when managing cancer. Based on the literature identified for this review, there were more in-depth articles exploring nurses' perspectives and expectations than patients on education and lifestyle support. In the study done by Puhringer et al. (2015), nurses in general perceive dieticians as the main resource for nutritional advice and education but acknowledged that they still play a crucial role in addressing concerns. Majority of the nurses also agreed that healthy eating enhanced the overall quality of life for cancer patients, and that patients are interested in eating healthy. However, Puhringer et al. (2015) revealed that only half of the nursing participants attempted to promote healthy eating, before, during and after treatment. In addition, other studies done previously have contradictory findings, arguing that patients struggle to take interest in healthy eating. Some of the challenges to promoting healthy eating brought up by nurses were insufficient time, support, and knowledge. While hospital location and nursing experience did not correlate to differences in the promotion of healthy eating practice and beliefs, nurses working in metropolitan areas were shown to rely more on dieticians as the primary resource compared to nurses working in rural areas. Another similar study was done by Keogh et al. (2017), exploring the perspectives and beliefs of nurses on physical activity promotion for cancer patients. The study found that the majority of the cancer nurses believed that they are the main resource for promoting physical activity and that physical activity is advantageous for cancer patients as it improves quality of life, mental health and reduces other complications and diseases. Despite this belief, approximately half of the nurses actively promoted physical activity before, during and after treatment, while the remaining nurses promoted physical activity solely during treatment. Three quarters of the nurses stated that the lack of time, potential harm to patients, inadequate support and knowledge impeded them from promoting physical activity, even though it was shown that they believe a relatively high proportion of their patients were interested in physical activity. When Keogh et al. (2017) examined influencing factors to the nurses' beliefs and perspectives, they found that while years of experience and location had no significant impact on physical activity promotion, nurses in metropolitan hospitals had a stronger belief in the positive outcomes of physical activity as compared to nurses in rural hospitals, despite a higher number of them citing knowledge gap as a barrier. In addition, nurses with over 25 years of experience were less likely to have perceived barriers to physical activity promotion.

When comparing these findings to the perspectives and expectations of patients in the study done by Perniamina et al. (2021), patients also perceived a lack of support in educational and lifestyle support. Due to lack of sufficient support, Māori and Pacific Islander patients were not as aware of the benefits of healthy eating as compared to NZ Europeans and therefore were also less likely to seek support or adjust their diet to improve wellbeing. Suggestions made by patients to address these discrepancies include having consistent and ongoing nutritional support either from healthcare professionals or other online resources and courses on how to prepare healthy foods. Additionally, all patients should also be educated and offered nutritional support right from the beginning, instead of waiting for patients to raise concerns first. The study done by Delpachitra et al. (2020) on patients' preferences for sleep management showed that most patients are invested in making lifestyle and behavioural changes to improve their sleep. On top of that, having educational support for sleep and behaviour is also vital to them in preventing and managing insomnia. Some patients felt that they preferred trying non-pharmacological methods due to the potential side effects from medications and would appreciate the support in getting access to treatment such as hypnosis, having a comfortable room, as well as having a consistent sleep-wake schedule. Analysis of these studies suggests that while nurses and patients are aware of the benefits of having adequate nutrition, rest and physical activities, the lack of clarity in the nursing role and disparities in perspectives and expectations results in insufficient educational and lifestyle support.

3.3.6 Other Barriers – Cost and accessibility to service

Cost and accessibility to service are barriers brought up by patients that were not discussed in the previous themes. Amongst the literature gathered from the search, only articles that focused on patients mentioned cost and accessibility as barriers to person centred and equitable cancer care. Firstly, Yeo et al. (2023) cited that finance was a crucial deciding factor for patients when considering treatment and would opt for treatments that were covered by funding or insurance. Delpachitra et al. (2020) mentioned that while most of their patient population were financially able to cope with cancer treatment, two participants found it a struggle. Dew et al. (2015) also found through their meta-analysis that patients with better socioeconomic status and capital had better health outcomes. Lastly, Peniamina et al. (2021) and Perelini et al. (2025) both stated that cost was a barrier to accessing cancer services, especially for some of the Māori and Pacific Islander patients. Apart from cost, Yeo et al. (2023) and Perelini et al. (2025) also highlighted patients in their studies that they perceived accessibility, availability and convenience as crucial factors when deciding treatment. However, patients from the Waitemata region expressed that transport and living situations were often not accounted for when staff plan cancer treatments (Koea, et al., 2019). Additionally, Lamprell et al. (2023) expressed that access to procedures such as colonoscopy have been a barrier to patients who have been deemed as low risk, despite having recurring symptoms. The lack of discussion on cost and accessibility amongst studies that focus on nurses suggests again that nurses may have limited awareness on the barriers and challenges that cancer patients face.

3.4 Summary

Overall, patients and healthcare professionals including nurses have somewhat similar perspectives and expectations on the role and significance person centred relationships and communication have in cancer care. However, when it comes down to the finer details of what person-centred relationships and communication entails, some differences could be identified between the perspectives and expectations of patients and healthcare professionals including nurses. This could possibly explain why they perceive improvements to rapport building and communication still needs to be made. Based on the literature gathered, significant differences can be identified in how important cultural safety is perceived by patients and healthcare professionals including nurses. This conclusion was made as cultural safety and its influence on cancer care was not shown to be a common topic explored by healthcare professionals and nurses despite its importance to patients. Additionally, both patients and nurses also had different perspectives and expectations on what cultural safety meant to them. With regards to support system and self-advocacy, patients and nurses have relatively similar perspectives and expectations, both recognising that support from whānau, friends and other healthcare professionals is vital in cancer care. However perceived barriers are still present, which impedes self-advocacy and engagement of support amongst patients, as well as provision and assessment of needs amongst nurses. Moving on, both patients and healthcare professionals including nurses place equal recognition on the significance of maintaining a positive attitude and mindset in the face of cancer treatment. Despite that, the lack of time from nurses, feelings of fear or staying in denial, can complicate cancer treatment experience, which results in a poorer perception of cancer and quality of life for patients. In addition, the lack of support and knowledge gap has been a consistent and recurring barrier brought up by both nurses and patients, which jeopardises the effectiveness of educational and lifestyle support in achieving optimal well-being for patients. Lastly, the absence of cost and accessibility as a discussion theme in nursing and healthcare articles signifies the lack of awareness and focus on addressing financial and accessibility barriers that prevent patients from receiving person-centred and equitable cancer care.

3.5 Strength and limitations

While the articles selected in the literature review have provided substantial insights into the perspectives and expectations of cancer patients and nurses, the studies are not without limitations. Without considering and recognising the strengths and limitations of each study, the reliability, trustworthiness, and generalisability of subsequent research built upon this literature research will be affected. Instead, the strengths and limitations of these studies can be used to better structure and guide research aims, process, methodology and methods.

Firstly, all the articles included in the literature review are peer reviewed and have obtained ethical approval from their respective Ethics Review Board. Peer review ensures that the articles are as accurate, trustworthy, and as authentic as possible (Steer & Ernst, 2021). Ethical approval on the other hand safeguards the participants in the research by reducing risks and ensuring confidentiality, respect, integrity, and informed consent. Based on the JBI critical appraisal and summary tables, majority of the articles have also clearly implemented some form of methods to minimise and account for any biases depending on the methodology of the research. Additionally, the inclusion of literature with different methodologies such as qualitative, cross sectional, quantitative, and systematic reviews allow for a more comprehensive interpretation of such a complex and broad topic. The qualitative studies provided in-depth perspectives and experiences of participants, while measurable data helped validate and increase reliability of the findings (Ahmed et al.,2024). However, despite having such rich findings, the data is not an accurate representation of the cancer patients and nurses in New Zealand alone. This is because several of the articles included participants from other countries such as Australia, United Kingdom, and Spain. Additionally, all of the articles except Matthews et al. (2020), provided perspectives from only either patients or healthcare professionals and nurses. Without understanding the perspectives and expectations of both sides within a single study, region, or area, it would be a challenge to explicitly address any matter or barrier holistically and in a way that would benefit both patients and nurses. On top of that, a few articles such as those by Puhringer et al. (2015), Keogh et al. (2017) and Delpachitra et al. (2020) also did not clearly account for biases in their study, which could potentially affect the credibility of the study's findings. Approximately half of the articles also did not specify and outline the cultural and theoretical standpoint or background of the researchers, as well as the influence they could have had on the study and vice versa. Therefore, it would be difficult to ascertain whether the findings of these studies were skewed. This suggests a need for a study that would be able to accommodate and accurately capture the perspectives and expectations of both cancer patients and nurses with regards to person-centred care as well as equitable health in New Zealand.

3.6 Research aims and questions

After reviewing the synthesised literature as well as the strengths, limitations and gaps, research aims and questions were formulated for the subsequent study. Therefore, the following study would aim to explore the perspectives and expectations of both cancer patients and nurses in New Zealand in relation to person- centred and equitable care.

Based on the research aim, three research questions were formulated:

1. What perspectives and expectations do Haematology, and Oncology patients have in relation to person-centred and equitable care?

2. What perspectives and expectations do Haematology, and Oncology registered nurses have in relation to person-centred and equitable care?
3. How do Haematology, and Oncology registered nurses perceive patients' perceptions and expectations in relation to person-centred and equitable cancer care?

The following chapter will provide an overview and description on the methodology and methods adopted in this study with the aim of addressing the above research aim and questions.

Chapter III: Methodology

As for the future, your task is not to foresee it, but to enable it.

Antoine de Saint Exupery, 1900 – 1944

4.1 Introduction

A research framework can be referred to as theoretical principles or concepts that function as the foundation in which research is built upon. The components of a research framework include research paradigm, methodology, methods, data collection and data analysis (Adom et al., 2018). Having an in-depth understanding of the framework underpinning research is pivotal as it provides direction on how the research process should be best designed, which leads to more robust research outcomes. Therefore, this chapter is organised around the theoretical framework that this research is founded on. It discusses and provides an overview of the pragmatic research paradigm, mixed method methodology, as well as qualitative and quantitative methods for data collection and analysis.

4.2 Research paradigm

Brown & Dueñas (2019) defines a paradigm as the philosophical worldview of a researcher. A research paradigm is described as a set of shared beliefs and worldview amongst researchers, on how problems should be approached and resolved. Every researcher has a unique worldview that encompasses his or her beliefs, perspective and understanding of knowledge, reality, values, and problem-solving approach. As such, evidence has shown that adopting a research paradigm that is in line with the researcher's beliefs and aims will result in a more rigorous research design (Guraya et al., 2023). In order to do so for this research, several research paradigms such as positivism, realism, critical theory, interpretivism and pragmatism were analysed by the researcher based on their underlying values, beliefs, and assumptions (Jenny, Brannan & Brannan, 2022). Amongst them, the pragmatic paradigm was deemed the most appropriate research paradigm.

The pragmatic research paradigm was created with the aspiration of addressing problems through the use of inquiry. It believes that the knowledge and understanding of the world is built through the analysis of human experience and interactions rather than on absolute truths (Allemang, Sitter & Dimitropoulos, 2022). This philosophical belief and value align with the aim of this patient-oriented research that seeks to understand the perspectives and expectations between patients with cancer and their nurses. Allemang, Sitter and Dimitropoulos (2022) further supports this by explaining that the use of inquiry along with values of democracy and social equity in the pragmatic research paradigm is beneficial for patient-oriented research in the healthcare setting. When used to design a research framework, the pragmatic research paradigm recognises that methodologies are vital tools that can help in developing strategies to answer the research question. Methodology is defined by Patel and Patel (2019) as the theoretical framework and analysis of methods that are put into place in a research study. It usually comprises of one or more paradigms, models, phases and qualitative or quantitative methods. It aims to provide a structure to the research process by outlining and analysing the process, strategies and methods used, including their strengths, limitations, and effectiveness in addressing the research question (Patel & Patel, 2019). Although the pragmatic research paradigm relies on using appropriate methodologies of inquiry that encompass collaboration, partnership and participation, its main focus is to be able to address the research question in the best possible way (Allemang, Sitter & Dimitropoulos, 2022). As such, when it comes to patient-oriented research that involves complicated social topics such as patients' and nurses' perspective and expectations on cancer nursing care, the pragmatic research paradigm supports the adoption of a multipronged approach. This allows the collection of data from different sources rather than solely from a single source, which will facilitate better knowledge gain to answer the research questions in a more thorough manner (Allemang, Sitter & Dimitropoulos, 2022). In other words, it values the importance of having a methodology that includes the freedom of having both objective and subjective data, or qualitative and quantitative data. This is referred to as a mixed methods approach or methodology (Dawadi, Shrestha & Giri, 2021).

4.3 Mixed methods

Mixed methods research has been increasing in popularity within healthcare research. There is growing evidence to show its advantages when utilised in the healthcare field due to its underlying pragmatic research paradigm (Wasti et al., 2022). The integration of both qualitative and quantitative approaches not only helps to shed light on complex research topics by enhancing the broadness and depth of a study, but also takes into consideration social, cultural, and environmental factors. Data collected using these approaches have shown to be more extensive, providing a more comprehensive understanding of the research question, problems, and probable resolutions (Vedel et al., 2019).

Within the mixed methods methodology, various designs were explored to help the researcher decide how and when to integrate the qualitative and quantitative approach. Three frequently used designs in research namely, convergent, exploratory sequential and explanatory sequential, were evaluated. The convergent design has only one phase which involves the combination of qualitative and quantitative approach during data collection and analysis. The methods used in this design are usually similar and complementary, and the outcome of the qualitative and quantitative data are compared or combined. The sequential design on the other hand involves two phases in its process where one approach of either quantitative or qualitative is used first, and the outcome of the initial data is used to inform the next approach. In exploratory sequential, qualitative method is used first followed by quantitative, while in explanatory sequential quantitative approach is used first before qualitative (Vedel et al., 2019). After considering the aim of this research, the exploratory sequential design was chosen to guide the research process. Tenny, Brannen & Brannen (2022) supports this by explaining that research questions should begin with the qualitative approach, as it aids in developing research hypotheses that can later be tested using quantitative approach and methods. The following sections will further explore the fundamentals and principles of data collection and analysis in both qualitative and quantitative approaches based on the exploratory sequential design.

4.4 Qualitative research

Qualitative research is an approach that seeks to explore and obtain in depth insight to topics or problems through the gathering of people's perspectives, experience, and behaviour (Tenny, Brannen & Brannen, 2022). It aims to solve the questions of 'how' and 'why', rather than quantifiable questions and answers, by allowing participants to express their thoughts and feelings about their encounters in an event. Topics such as human behaviour, interactions, opinions, culture, and expectations like those explored in this research are complex subjects that are challenging to accurately grasp. Using the qualitative approach would thus allow better analysis, while deepening and broadening the understanding of the subject at the same time (Tenny, Brannen & Brannen, 2022).

A well-designed qualitative approach should firstly begin with a clear aim in mind. Four different main theories were evaluated to help guide the structure of this qualitative research. They are ethnology, grounded theory, phenomenology, and narrative. Firstly, ethnology studies the culture within groups of people, which includes shared values, language, beliefs, perspective social patterns and habits (Tomaszewski, Zarestky & Gonzalez, 2020). Its main goal is to understand and describe culture and how groups of people function in relation to the research aim and question. Grounded theory analyses how and why an occurrence takes place or why people react to events the way they do. It usually focuses on social interactions and encounters and aims to provide a theoretical explanation and reason behind the event of interest (Tenny, Brannen & Brannen, 2022). The phenomenological approach investigates the lived experience of people who have participated in or are involved in a phenomenon. It is designed to get a good grasp of what and how an individual experiences during a phenomenon and is therefore mostly used to explore broader ideas and concepts (Tomaszewski, Zarestky & Gonzalez, 2020). Lastly, the narrative approach focuses on utilising storytelling as a means to analyse an individual's interpretation of an experience or event. Its purpose is to understand the influences and factors that have influenced an individual in the way he or she portrays their narrative (Tomaszewski, Zarestky & Gonzalez, 2020). It is predominantly used when exploring events that have resulted in a change within an individual or situation, such as leadership and mentorship within the healthcare industry.

After analysing the appropriateness of each theory in relation to this research question, it was concluded that the phenomenological theory is the most applicable approach. This research aims to explore the perspective and expectations of patients' and nurses on cancer nursing care which relates more to the phenomenological theory's aim of analysing lived experience and its meaning for the participants (Tomaszewski, Zarestky & Gonzalez, 2020).

4.4.1 Data collection and analysis, interviews

Tenny, Brannen & Brannen (2022) emphasizes that apart from having a clear aim in mind, constructing a meticulous data collection and analysis approach is equally vital to having a well-designed research. They go on to further explain that the study population should be specific, data collection methods should ensure optimal gathering of data, and there should also be sufficient data analysis methods. Therefore, the following section will outline the sampling framework as well as data collection and analysis process based on the phenomenological approach that was adopted for this research.

Firstly, a sampling framework can be referred to as a structured plan that describes the methods for sampling, sampling size and recruitment process for participants (Moser & Korstjens, 2018). When selecting participants for research, having an appropriate sampling framework is crucial to optimise trustworthiness and validity (Palinkas et al., 2015). Additionally, it is vital that the sampling framework incorporated is relevant and in line with the research questions and aims. In qualitative research, participants are selected based on how appropriate they are to the research aim, as well as how well they would be able to represent the studied phenomenon (Moser & Korstjens, 2018). In qualitative phase I of this research, the goal of the sampling framework was to obtain in-depth understanding, expectations, and perspective of cancer care from Haematology and Oncology inpatients. Therefore, a purposeful sampling method was used to identify and select participants. Purposeful sampling revolves around identifying participants who have knowledge or experience with the research's topic of interest. It is not only widely utilised in qualitative research, but also effective in identifying information rich participants who would be able to maximise data collection (Palinkas et al., 2015). Moser and Korstjens (2018) also supports this by explaining that the main method used in phenomenological research is purposeful sampling. Within purposeful sampling, there are various strategies and designs that can be utilised to identify participants in this research. One such strategy involves the use of inclusion and exclusion criteria. The use of inclusion and exclusion criteria ensures that recruitment is not only ethical and relevant to the research question, but also allows the exploration of expectations and perspective amongst patients with different demographic and characteristics (Moser & Korstjens, 2018).

Secondly, since the aim of the phenomenological approach is to capture the lived experience of a target population, the main suggested data collection method for the qualitative approach in this research are interviews. Observations and a personal journal or account could also used to supplement if necessary (Tomaszewski, Zarestky & Gonzalez, 2020). Interviews are data collection methods where the interviewer or researcher asks participants questions in-person, via a phone call or through video calls. The aim of these interviews is to identify meaning and common themes in what participants share about their lived experience (Moser & Korstjens, 2018). They are primarily conducted in a semi-structured and open-ended way, where the interviewer would ask a set of pre-planned questions and adapt the flow of the interview based on the participant's response (Tenny, Brannen & Brannen, 2022). They are also usually carried out using a one-on-one approach in a participant's environment of choice, especially when discussing sensitive subjects. Prompting words may be used to encourage participants to share more. Thirdly, when it comes to data collection in qualitative research, the rule of thumb is to continue gathering data until data saturation has been attained. Data saturation refers to a point where there is no more new information to be obtained, and the data collected is able to provide optimal insight to the phenomenon (Moser & Korstjens, 2018). Moser and Korstjens (2018) estimates that fewer than 10 interviews are required in the phenomenological approach. As sample sizes in qualitative research are usually small, it is important to optimise the depth of data obtained. In light of this, the researcher in this study worked in collaboration with supervisors to develop a semi-structured interview and ensured that data saturation was attained by reviewing and analysing the data collected from interviews. Lastly, qualitative research analysis begins with processing and reprocessing collected data, while also taking into consideration the bigger picture and research question (Moser & Korstjens, 2018). In phenomenological approach, the aim is to be able to formulate themes based on data collected, that can accurately depict the expectations, perspectives and lived experience of the study population (Moser & Korstjens, 2018). In this study, interviews were audiotaped and transcribed verbatim to accurately reflect and capture participants' perspectives in relation to person-centred and equitable care. The transcripts were then analysed and cross examined using thematic analysis to identify common themes (Tenny, Brannen & Brannen, 2022). Ultimately, the results generated from the qualitative research analysis go on to guide how the subsequent quantitative sampling decisions were made. Further discussions on the methods used to collect and analyse qualitative data will be covered in the next chapter.

4.5 Quantitative research

Quantitative approach is a method used to gather and analyse numerical data (Rana, Gutierrez & Oldroyd, 2021). Unlike the qualitative approach that aims to solve the 'how' and 'why', the quantitative approach seeks to answer quantifiable questions such as 'how many' or 'to what extent'. This allows researchers to identify patterns and associations, evaluate the scale of cause and effect, as well as establish priorities within a study (Rana, Gutierrez & Oldroyd, 2021). Its main characteristics include the use of standardised research methods, having a larger study population and wider generalisability (Ghanad, 2023). Within the quantitative approach in this research, four main designs were initially considered, to help structure the research process. They are experimental, correlational, casual comparative or quasi experimental, and descriptive (Ghanad, 2023). Firstly, the experimental design, also known as the interventional or comparison research, is primarily used to evaluate the relationship between an independent and dependent variable. It involves comparing a group that has been randomly assigned to an intervention versus a group that has not been assigned, in a controlled environment (Ghanad, 2023). Similar to the experimental design, the casual relationship or quasi-experimental seeks to identify cause and effect relationship between an independent and dependent variable. However, in casual relationship the intervention group is not randomly selected but found through pre-existing groups (Ghanad, 2023). The correlational design investigates whether a change in one variable has an impact on another. It aims to identify if there is a statistical relationship between the variables even without manipulation or intentionally assigned interventions (Ghanad, 2023). Last but not least, the descriptive design seeks to accurately depict phenomenon, culture, people, and circumstances. It focuses on the characteristics of 'how', 'what', 'when' and 'where' (Ghanad, 2023). Amongst these four designs, the descriptive design was identified as the most appropriate design because its aim aligned most to the purpose of this research. Furthermore, since there is no cause and effect or correlational investigations, the other designs would not be appropriate for this study. Ghanad (2023) also supports the use of the descriptive design by highlighting that is best used when exploring qualities, differences, trends, and attributes, which is relevant when seeking to understand and explore the perspectives and expectations of patients and nurses.

4.5.1 Data collection and analysis, surveys

The descriptive research design consists of three data collection approaches namely case study, observational and survey (Ghanad, 2023). Between these three approaches, the survey design was identified as the best suited approach for this study. Firstly, it is a widely adopted approach in quantitative studies that can be used in diverse settings and contexts to gather information (Rana, Gutierrez & Oldroyd, 2021). The approach revolves around the distribution of questionnaires by the researcher to gather accurate data, and is particularly useful when evaluating perspectives, opinions and demeanour of a sample population or the whole population (Ghanad, 2023). This makes the survey approach advantageous in its ability to capture differences when it comes to perspectives and expectations of cancer nursing care between nurses and patients in this study. Furthermore, it would also have the capabilities to accommodate larger sample sizes which is required when it comes to the quantitative phase of this mixed method research. With its larger target population size, the survey approach would better represent a more diverse population, and data collected would be more generalisable and reliable as well (Ghanad, 2023). In contrast, a case study focuses on detailed evaluation of individuals in a study population through the evaluation of single case studies or comparison of multiple case studies. While it allows researchers to test predictions and increase understanding of a culture, it would not be able to accommodate the large sample size required for a high-powered study (Ghanad, 2023). While the observational approach aims to gather statistical information of participants by evaluating them at a distance, the approach would not be able to clearly capture opinions and perspectives. Therefore, surveys were developed in this study by the researcher based on the results gathered from the qualitative phase.

When it comes to data analysis, the quantitative research approach consists of two different techniques namely descriptive and inferential. The descriptive technique provides a summary and numerical presentation of the data collected, while the inferential technique measures the cause and effect or relationship between variables (Rana, Gutierrez & Oldroyd, 2021). Since this study does not involve the analysis of cause and effect, the descriptive analysis technique was identified as a more relevant technique to analyse and obtain accurate data. It describes data in three ways, specifically frequency, central tendency and dispersion. Further discussions on survey and quantitative data analysis methods will be illustrated in the next chapter.

4.6 Quality Criteria

Castillo-Page, Bodilly & Bunton (2012) describes good research as one that is accurate, relevant, dependable, and unbiased, regardless of whether the approach is qualitative or quantitative. Even though both approaches for research demand similar quality standards, the quality criteria differ between the approaches. Qualitative research prioritises trustworthiness in research (Ahmed, 2024). Through the implementation of rigorous techniques, ensuring transparency and applying reflexivity, researchers are able to achieve trustworthiness (Korstjens & Moser, 2018). On the other hand, quantitative research relies on internal validity, generalisability, reliability, and objectivity (Heale & Twycross, 2015). Thus, this section of the chapter will summarise the techniques and criteria used in this research to ensure and promote rigor and robustness (Castillo-Page, Bodilly & Bunton, 2012).

4.6.1 Trustworthiness

In qualitative research, trustworthiness refers to the certainty that research findings are authentic, accurate and truthful (Korstjens & Moser, 2018). It consists of four different components namely credibility, transferability, dependability, and confirmability (Ahmed, 2024). The following section discusses how trustworthiness is measured and applied in this research.

Credibility can be attained through prolonged engagement, persistent observation, and triangulation. Prolonged engagement refers to the investment of time to familiarise with the data collection setting, build trust with participants and minimise misinformation to obtain detailed and accurate data. This is attained by encouraging participants in this research to provide examples for their statements and getting the interviewer to ask to follow up questions (Korstjens & Moser, 2018). Persistent observation refers to the continual collection, analysis, and adaptation of the research process to best achieve the main aim of the research question. Adhering to that, data in this research is constantly reviewed, analysed, theorised, coded, and adjusted throughout the research until the expected depth of insight regarding patients' and nurses' perspective of cancer nursing care is achieved. Triangulation is described as the utilisation of different data sources, collection methods and investigators (Korstjens & Moser, 2018). In this research, both qualitative and quantitative data are collected from different demographics of cancer patients and nurses. The researcher in this study was also supported by one or more supervisors throughout.

Korstjens & Moser (2018) defines transferability as the extent to which the findings of the research is relevant and applicable to other contexts and populations. Researchers are obliged to enable readers to decide whether or not the findings are relevant to their setting by providing a thick description in the research process. Thick description in this research is attained by providing detailed breakdown of how the research is carried out. This includes context, settings, sample size, methods, participant demographics, inclusion and exclusion criteria, data collection methods and methods for analysis (Korstjens & Moser, 2018). This collection of thick descriptions is also vital when it comes to attaining dependability. Dependability refers to the consistency of the research approach and methodology throughout (Ahmed, 2024). By collecting information and keeping an audit trail of the research process in this study, consistency can be observed and maintained. This in turn increases dependability and reduces inconsistencies along the way (Ahmed, 2024).

Consistency and keeping an audit trail also minimise the risk of biases, which is a priority when it comes to confirmability. Confirmability refers to being impartial and objective of research findings, ensuring that they are not compromised by biases or preferential opinions of the researcher (Ahmed, 2024). Confirmability can be attained through member checks, peer debriefing and reflexivity. Firstly, member check refers to allowing data collected to be reviewed by the respective participants and enabling them to correct any misinterpretations (Korstjens & Moser, 2018). This minimises the chances of misconception from biases. As such, data collected from this research such as interview transcripts were offered back to participants for review and to gather feedback. Secondly, apart from seeking feedback from participants, obtaining feedback from experts engaging in peer review such as supervisors can also reduce biases and increase objectivity (Ahmed, 2024). Throughout this research, the researcher has continuous support from supervisors to review and gather feedback on the process, findings, and interpretations of the research. Lastly, a researcher's ability to practice reflexivity, or participate in acknowledging, explaining, and communicating the influence one has on the dynamics between researcher and participants is pivotal (Olmos-Vega et al., 2022). The lack of accountability in the relationship between researcher and participants could potentially compromise the depth of information shared due to fear of repercussions. This could unintentionally cause harm to participants and affect quality of data as well as ethical principles of the research (Olmos-Vega et al., 2022). Tomaszewski, Zarestky and Gonzalez (2020) also supports this by explaining that reflexivity is an essential part of the phenomenological approach. Therefore, active self-reflection was engaged throughout the research, and the relationship between participants and researcher will be further elaborated when discussing researcher's background and ethical concerns later in this dissertation.

4.6.2 Validity and reliability

In quantitative research, validity is referred to as the accuracy in which a concept or event is measured (Heale & Twycross, 2015). In other words, it describes whether or not the approach used would result in data that is relevant to the research study aim (Ranganathan et al., 2024). Reliability on the other hand is defined as the consistency in which a concept or event is measured. It seeks to show that similar findings can still be obtained even if the study were to be conducted on the same individuals at a different time (Ranganathan et al., 2024). This section aims to outline how validity and reliability is applied and measured in this research.

Validity can be measured in three different ways, namely content validity, construct validity and criterion validity (Heale & Twycross, 2015). Content validity seeks to determine whether the instrument used to collect data covers all the necessary content it was intended to. In this research, the researcher received support from supervisors to ensure that the staff questionnaire surveys created would cover all relevant themes and aspects in relation to results from the qualitative phase as well as the research question. Once the data collection instruments have been put in place, construct validity is utilised to ensure that data collected would be relevant and valid (Ranganathan et al., 2024). In other words, data collected from the questionnaire should portray cancer nurses' expectations and perspectives in relation to patients. In this study, the use of descriptive statistics allowed the researcher to portray quantitative data in a way that described the perspectives and expectations of nurses. Lastly, criterion validity is incorporated to determine whether or not the instrument used is based on gold standards, generalisable and universally applicable (Ranganathan et al., 2024). While there are currently no gold standard instruments for measuring nurses' perspectives and experiences, questionnaire surveys have been successfully used in other similar studies that seek to understand expectations of patients (Kusunoki et al., 2023).

Reliability aims to analyse how consistent a data collection instrument is. This suggests that if data were to be collected from a participant using the same instrument more than once, the data collected should be similar across (Heale & Twycross, 2015). While it is impossible to acquire a definite measurement of reliability, estimations can be made through various methods such as test retest, inter-rater reliability, and internal consistency (O'Connor, 2022). The test-retest method uses statistical techniques to measure how similar the response from a participant is after having used the same instrument several times under similar circumstances. Inter-rater reliability analyses the assessments of various observers. This can be attained by having several researchers evaluate the relevance of the contents in the instrument. Their evaluation determines the reliability of the instrument (O'Connor, 2022). Internal consistency demonstrates how consistently a participant responds to an instrument, if the same concept was phrased in a different way. Due to time restraints in this research, only inter-rater reliability and internal consistency can be determined as it was not feasible for participants to complete the questionnaire more than once. The researcher had support from supervisors when developing contents of the staff surveys. In addition, to ensure internal consistency, several questions were phrased in a different way.

4.7 Researcher background

The researcher completed a Bachelor of Nursing with Honours at the Singapore Institute of Technology, conjoined with the University of Glasgow, and has six years of experience working with oncology and haematology patients both in Singapore as well as in Health New Zealand - Te Whatu Ora Waikato. The researcher was accepted to commence post-graduate studies through the University of Auckland and managed to achieve favourable results. The researcher was therefore offered the opportunity to enter the Bachelor of Nursing with Honours programme, in partnership with the University of Waikato and Health New Zealand - Te Whatu Ora Waikato.

As part of the Bachelor of Nursing with Honours programme, it is a requirement to complete this research study. However, as a Nurse Educator, the researcher is also keen to discover evidence-based findings that can support the needs of cancer patients in the clinical area, as well as provide better tailoring of education for nurses.

4.8 Summary

In conclusion, having clear research aims, processes, underpinning theories, and methodologies are vital to ensure relevant, quality, and robust research outcomes in this study. The pragmatic research paradigm, exploratory sequential mixed methods methodology, qualitative and quantitative approach were therefore outlined and discussed in this chapter. In addition, potential biases as well as strategies that were put in place to increase trustworthiness, reliability and validity were also discussed and acknowledged to increase the authenticity and quality of this paper. The following chapter will further expand the methods and instruments used in this study, based on the chosen methodologies.

Chapter IV: Methods

After all, the ultimate goal of all research is not objectivity, but truth.

Helene Deutsch, 1884 – 1982

5.1 Introduction

Aguiar (2024) defines research methods as the techniques and instruments used for data collection, analysis, and interpretation. Methods utilised in research should be in line with the research question and aim to optimise trustworthiness, validity, and reliability. Since this research has adopted the pragmatic research paradigm and mixed methods methodology, this chapter will be organised around the methods that are relevant to these underpinning theories and framework. This includes the study design, sampling selection, data collection methods for both qualitative and quantitative approach, data analysis techniques as well as ethical concerns in this research.

5.2 Study design

Within the mixed methods methodology, this research utilised the exploratory sequential study design which consists of two phases: qualitative (Phase I) and quantitative (Phase II). Once permission was granted by the Human Research Ethics Committee of the University of Waikato 2024 (Ref no. HREC (Health)2024#19), as well as cultural and ethics committee of Health New Zealand -Te Whatu Ora Waikato (Appendix 29), data collection and analysis were initiated in Phase I using the qualitative approach. The results obtained from Phase I were then used to guide data collection and analysis in Phase II using the quantitative approach (Vedel et al., 2019).

Semi-structured interviews were conducted on up to 9 Haematology and Oncology patients in the inpatient ward over the span of several months in Phase I. The aim of the structured interviews was to gain insight and understanding on the perspective, expectations, values and lived experience of patients' interaction and care received from the inpatient Haematology and Oncology nursing staff. Following data collection and analysis from Phase I, Phase II was then initiated with staff questionnaires for all Haematology and Oncology inpatient registered nurses in Health New Zealand- Te Whatu Ora Waikato. The questionnaires were developed according to the findings and analysis of Phase I. The aim was to obtain nurses' perspective, expectations and values of nursing care provided in relation to the perspective and expectations of patients. Data collected from the questionnaires were then analysed to obtain findings and interpretation. Although conducted separately, both phases were aimed at addressing the overarching research questions. The figure below (Figure 2) provides a flowchart of this study's process.

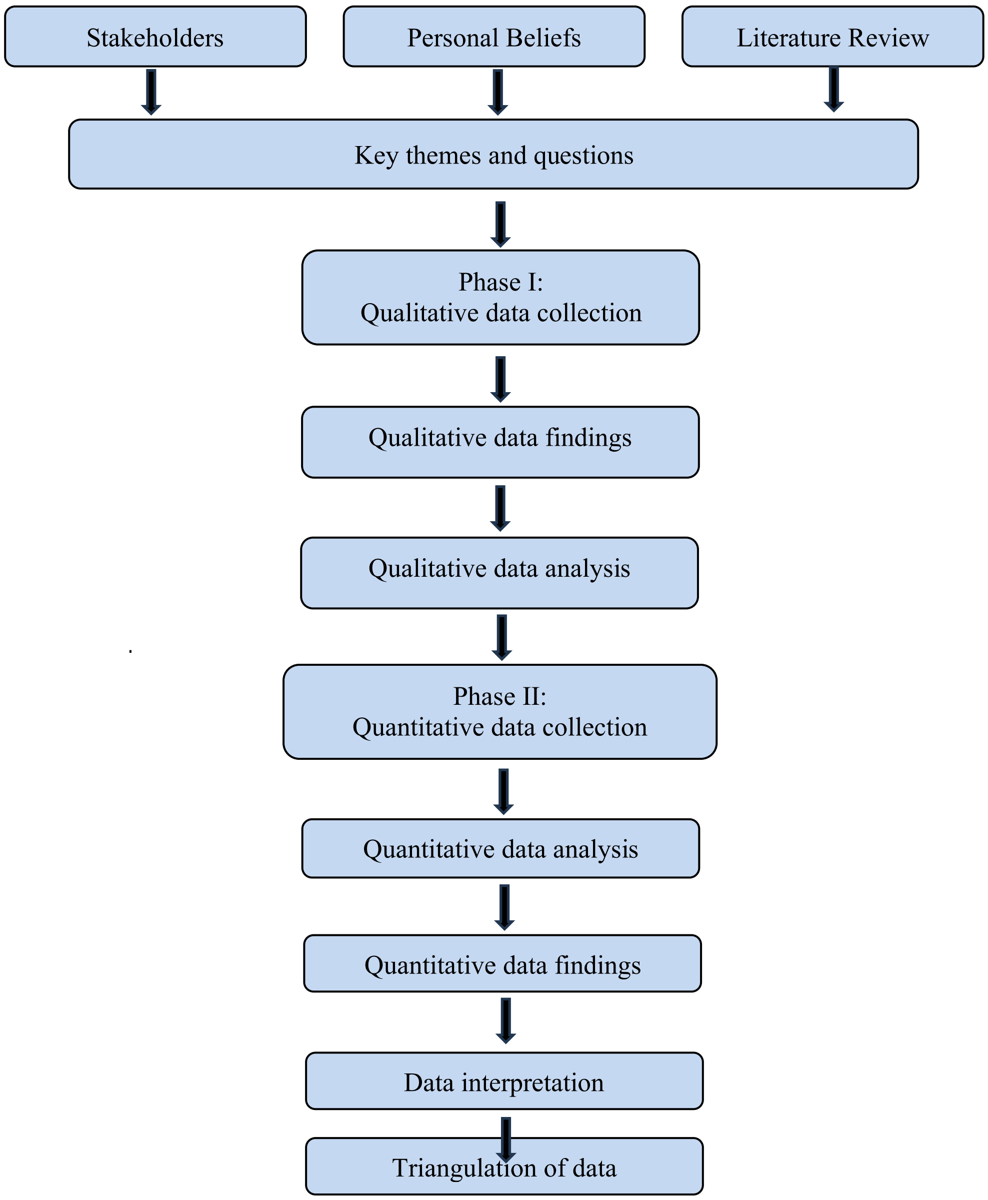


Figure 2 **Research design flowchart**

5.3 Setting

This research was conducted in an inpatient Haematology and Oncology ward in Waikato Hospital. The ward is a key stakeholder when it comes to providing and improving cancer care due to the constant interactions between nurses, patients and whānau. In addition, the topic of this research was identified as there was increased interest and focus from the ward to provide more person-centred, culturally safe, and equitable cancer nursing care. Furthermore, as the only inpatient ward in the Waikato region, data collected comes not only from local patients residing in Hamilton, but also from across a wider range of the Waikato region.

Phase I

5.4.1 Population & Recruitment

Utilising the purposeful sampling framework discussed earlier in this study, up to 9 Haematology and Oncology inpatients patients were identified. Patients were selected based on age (above 65 and under 65), ethnicity (Māori, Pacific Islander, NZ European and others), as well as gender (male and female). Inclusion and exclusion criteria were also applied to optimise the richness of data collected and to ensure patient safety. The inclusion criteria included patients who have been on the ward for a week or more during their treatment journey, as well as patients who are medically stable enough to participate in the interview. Exclusion criteria excluded patients who are acutely unwell or have been admitted for less than a week on the ward. The tables below (Tables 3 & 4) provide depiction of the sampling framework used.

Table 3 Sampling Framework

Ethnicity Age	Māori and Pacific Islander	NZ European	Others
> 65 years old	Up to 1 female and up to 1 male patient	Up to 1 female and up to 1 male patient	Up to 1 female and up to 1 male patient
< 65 Years old	Up to 1 female and up to 1 male patient	Up to 1 female and up to 1 male patient	Up to 1 female and up to 1 male patient

Table 4 Inclusion and exclusion criteria

Inclusion Criteria	Exclusion Criteria
Medically stable	Acutely unwell
Admitted for a week or more	Admitted for less than a week

Once the patients were identified, they were arranged from the highest nursing needs to the lowest according to Trendcare, the hospital's patient acuity prediction system. Nursing needs were included as a consideration as it would optimise the breadth of data collection which would contribute to obtaining rich data. Thereafter, the researcher then ascertained the interest of the first male and female patient on the list to participate in the interview. If he or she was keen to participate, a participant information sheet was then handed out to the patient (Appendix 30). If the patient has read the participant information sheet and agreed to proceed with the interview, the researcher then proceeded with obtaining an informed written consent (Appendix 31) and arranging a suitable time for the interview. If the patient did not wish to take part in the interview, the next patient on the list was then approached.

5.4.2 Data Collection

Semi-structured interviews were held in the patient's individual room or private meeting rooms in the ward and took place for no longer than an hour. This was to provide and ensure a safe and private environment for patients. Prior to starting the interview, patients were offered to have their support person or people with them, and also given the opportunity to clarify any questions and begin with a karakia, prayer, song, or other opening if they would like to. Interview questions were designed around the health model of Te Whare Tapa Whā (Durie, 1984), as the model was developed around the aim of achieving person-centred and holistic well-being, which is the ideal standard of nursing care in New Zealand (Ministry of Health NZ, 2024). The model (Appendix 32) consists of four main aspects: Taha Tinana, Taha Hinengaro, Taha Wairua and Taha Whānau. Patients were invited to share their lived experience including; what went well for them and what could have been better, while receiving nursing care on the ward, based on these aspects. Where appropriate, prompting questions and words were also used to encourage the patient to share further if they were comfortable with it.

5.4.3 Data Analysis

Once data saturation was obtained, the data collected from the semi-structured interviews were first transcribed verbatim, with any identifiable information removed. Thematic analysis was then used to process the data collected. Firstly, the interview transcripts were reviewed several times by the researcher to familiarise and understand its content. Using Braun and Clarke's reflexive thematic analysis, patterns and similarities arising within the data were categorised and classified into codes and themes. This process was repeated until no more new themes emerged. The Braun and Clarke reflexive thematic analysis method was used for thematic analysis as Sundler et al. (2019) mentioned that is complementary to the phenomenological approach that this study has undertaken. When thematic analysis was completed, checks were done by the researcher's supervisor to ensure that the data is accurate, relevant, and trustworthy. The themes and sub themes derived from the qualitative data analysis were then used to develop a Likert scale online anonymous survey for all registered nurses in the Haematology and Oncology ward during phase two.

Phase II

5.5.1 Population & Recruitment

In this phase, a voluntary sampling method was utilised to collect quantitative data. Voluntary sampling is a non-probability sampling design that recruits participants based on their willingness to be a part of the research (Murairwa, 2015). It was selected as the sampling method for this phase as a study done by Murairwa (2015) demonstrated that it yielded more accurate findings when sensitive and complex surveys are involved. All 53 registered nurses in the Haematology and Oncology inpatient ward of Health New Zealand - Te Whatu Ora Waikato were invited to participate in the online anonymous survey over the span of two weeks via their work emails. Within the email, the survey link as well as an information sheet (Appendix 33) was also attached to provide nurses with detailed explanation on the purpose of the research and survey. Murairwa (2015) highlighted in his study that since the sampling method depended on participants' willingness, persuasive strategies could be adopted to optimise responses. Therefore, intent statements and follow up emails were also sent out during the collection period with the purpose of demonstrating the value of this research, as well as encouraging participants to change their minds. The email also highlighted the anonymity of the survey to assure confidentiality with no repercussions from their responses.

5.5.2 Data collection

An anonymous Likert scale survey was developed on Microsoft Forms based on the themes and sub themes derived from the thematic analysis of the qualitative phase (Appendix 34). Likert scales are referred to as interval rating scales that seek to measure the level of agreement or frequency from participants' response in relation to a statement (Heo et al., 2022). This scale was selected for this study as it is not only widely used, but also appropriate for measuring the perspectives and expectations of registered nurses in the Haematology and Oncology ward through statistical data and inferences. The Likert scale sent out to registered nurses consisted of 16 statements. The first four statements were structured to gain a better understanding of the nurses' demographics. Due to potential imbalances in demographics amongst nurses, the options for demographics were structured in a way that would reduce as many variables as possible. Each of the remaining 12 statements represented one or more of the sub themes from the thematic analysis. Within each statement, participants had five different options to select from namely, 'Strongly agree', 'Agree', 'Neutral', 'Disagree' and 'Strongly disagree'. Considering that the duration of the survey could negatively impact the response rate, the researcher ensured that the survey would not take more than ten minutes in total. At the end of two weeks, the researcher stopped data collection and proceeded to analyse the 15 (n=15) survey responses collected.

5.5.3 Data analysis

Due to the limited sample size for the survey, it was decided that descriptive statistical data analysis was the most appropriate method to analyse results from the survey. This is justified by Hopkin et al. (2015) who suggested that with incredibly small samples, inferential statistics would not be as applicable. Rather, descriptive statistics and visualisation of data would result in better optimisation of the limited data. In addition, this statistical method was also suggested by a statistician whom the researcher consulted with in The University of Auckland. Descriptive statistics is described by Kaliyadan and Kulkarni (2019) as the summary of data, which can be presented using simple measures such as frequency, central tendency, and distribution. Frequency measures number counts as well as percentages. Central tendency measures mean, mode, median, while distribution measures standard deviation (SD) and interquartile range (IQR). Using these measurements, the researcher was able to make conclusions and inferences from the statistical data based on how much participants agreed with each statement.

5.6 Ethical considerations

When conducting any research, ethical considerations are central to preserve and protect the well-being of both researcher and participants. Stadnick et al. (2021) shares that it involves using resources responsibly, upholding human rights, and maintaining integrity in dissemination of results. Firstly, ethical approval was obtained prior to commencing the research from the Human Research Ethics Committee of the University of Waikato on 30th April 2024 (Ref no. HREC (Health)2024#19). The researcher also consulted the cultural and ethics committee of Health New Zealand - Te Whatu Ora Waikato, to seek approval and discuss how the research can be done to improve health equity for Māori patients. When commencing the research, equitable recruitment was utilised to maximise representation by including diversity when deciding on the sample framework and population. Exclusion criteria was also put in place to protect the well-being and health of patients. It ensured that the research would not be put in the way of the patient's recovery if they are acutely unwell. Informed consent was also obtained from all participants to ensure that they are fully aware of the expectations and process of this research. Additionally, information sheets were provided, and the use of simple language was used to ensure clear comprehension of what the research entails. Participants were also informed of the right to withdraw at any time if they wanted to. When conducting patient interviews, and staff surveys, participants were allowed to select a time and space that best suited them to participate in the interview or survey. During patient interviews, assessments were made by the researcher to determine if it was still safe and ethical to proceed or to discontinue if patients became unwell. Instruments utilised to collect data were also kept to an appropriate time limit to minimise and reduce burden on participants. Participants' identities were kept anonymous and confidential throughout. Pseudonyms were utilised for patients instead of their personal name and surveys did not include any identification questions or statements. Lastly, data collected was stored in a secured computer and access was also restricted to only the researcher and the researcher's supervisors.

5.7 Summary

In conclusion, intentional selection of appropriate methods utilised to conduct this research is vital. This is to ensure that accurate and reliable data are collected and analysed ethically for both qualitative and quantitative phases. Semi-structured interviews and thematic analysis was used for the qualitative phase while anonymous online Likert scale surveys and descriptive statistics was used for the quantitative phase. The following chapter will further discuss the findings and results obtained from both phases.

Chapter V: Findings

What we find changes who we are.

Zora Neale Hurston, 1903 – 1996

6.1 Introduction

Data analysis in a mixed-methods research includes analysing both quantitative and qualitative data using appropriate analysis designs respectively. After these preliminary steps, further analysis is then engaged to integrate and draw connections from both findings. The joint research finding provides representation of the data that goes beyond the conclusions from each method alone (Creswell & Inoue, 2025). This research explored the perspectives and expectations of Haematology and Oncology patients and nurses in relation to person-centred and equitable care. The study consisted of two phases: qualitative (Phase I); and quantitative (Phase II), where semi-structured interviews and anonymous online surveys were carried out with patients and nurses respectively in a Haematology and Oncology inpatient ward in Te Whatu Ora Waikato. This chapter therefore aims to carry out preliminary analysis and draw findings from the data collected. It will be organised in two parts, where part one focuses on the analysis of the semi-structured interviews using reflexive thematic analysis. Part two on the other hand will revolve around analysing the anonymous online staff survey using descriptive statistics.

Part 1: Qualitative findings

6.2 Patient Demographics

Purposeful random sampling framework was used to identify suitable patients for the semi-structured interview in the Haematology and Oncology inpatient ward. Patients were selected based on age (above 65 and under 65), ethnicity (Māori, Pacific Islander, NZ European and others), as well as gender (male and female). Inclusion and exclusion criteria were also applied to optimise the richness of data collected and to ensure patient safety. The inclusion criteria included patients who have been on the ward for a week or more during their treatment journey, as well as patients who are medically stable enough to participate in the interview. Exclusion criteria excluded patients who are acutely unwell or have been admitted for less than a week on the ward. The initial goal was to recruit up to nine patients, however only six patients (n=6) were successfully recruited in total. This was because during the recruitment period, there was a lack of diversity in patients to meet all the sampling framework and inclusion criteria. There were more patients who were aged above 65 as compared to patients below 65, resulting in the recruitment of more patients who were aged above 65. This proportion coincides with data found from the New Zealand Cancer Registry which suggested that there are higher incidences of cancer amongst the older age ranges.

Equal number of NZ European patients and Māori patients were recruited in the interviews, while there were no Pacific Islander or Asian patients. The proportion of NZ European and Māori patients were similar to data from the New Zealand Cancer Registry. However, the absence of Pacific Islander patients during the recruitment phase despite their high incidence rates could suggest possible barriers with regards to access to cancer services and patient self-presentation, which have been demonstrated in findings of studies by Gurney et al. (2020) and Perelini et al. (2025).

While there were a few Asian patients present, they did not fit the inclusion criteria as all of them have only been admitted in the ward for less than a week or were newly diagnosed patients. Overall, there were also more female patients than male patients during recruitment, despite higher incidences amongst males in New Zealand. This highlights the possible lack of engagement in cancer services amongst males as demonstrated in the study by Dearing et al. (2024). In addition, several male patients who were initially identified as potential participants were either medically unwell or did not wish to participate. A breakdown of demographics can be found in Table 5 for patients who consented to participate in the interviews.

Table 5 Patient demographics

Characteristics	Categories	No.	Percentage (%)
Age	**Total**	**6**	**100**
	Above 65	4	66.7
	Under 65	2	33.3
Ethnicity	**Total**	**6**	**100**
	NZ European	3	50.0
	Māori	3	50.0
	Pacific Islander	0	0
	Others	0	0
Gender	**Total**	**6**	**100**
	Male	2	33.3
	Female	4	66.7

6.3 Thematic analysis

Thematic analysis was utilised to analyse data from the interviews, as it is a widely incorporated approach for analysing large amounts of qualitative data. It provides a structured, systematic, and rigorous process to analysing data, through searching, identifying, refining and reporting of themes (Nowell et al., 2017). However, there are very few credible methods available that ensure accuracy and rigor. One such method implemented in this study is Braun and Clarke's reflexive thematic analysis (Braun & Clarke, 2020). The use of reflexive thematic analysis encouraged the researcher to practice reflexivity through continual reflection on beliefs, values, and assumptions, thereby increasing trustworthiness. In addition, Sundler et al. (2019) also mentioned that the Braun and Clarke reflexive thematic analysis method is complementary to the phenomenological approach that this study has undertaken, therefore making it an appropriate method. Braun and Clarke (2020) recommended a six-phase process for thematic analysis. The phases include; becoming familiar with the data, developing initial codes from key words, identifying themes, evaluating themes, refining themes, and generating the report. Following these phases, four themes were identified namely, ‘holistic needs and care’, ‘involving and engaging support system’, ‘barriers and challenges’ and ‘nursing roles and patient engagement’. The following section will further explore each theme and provide a breakdown of how the themes were generated using Braun and Clarke’s six phase thematic analysis. Pseudonyms were allocated to each patient participant in this study to ensure privacy and confidentiality. An illustration can be found in Table 6.

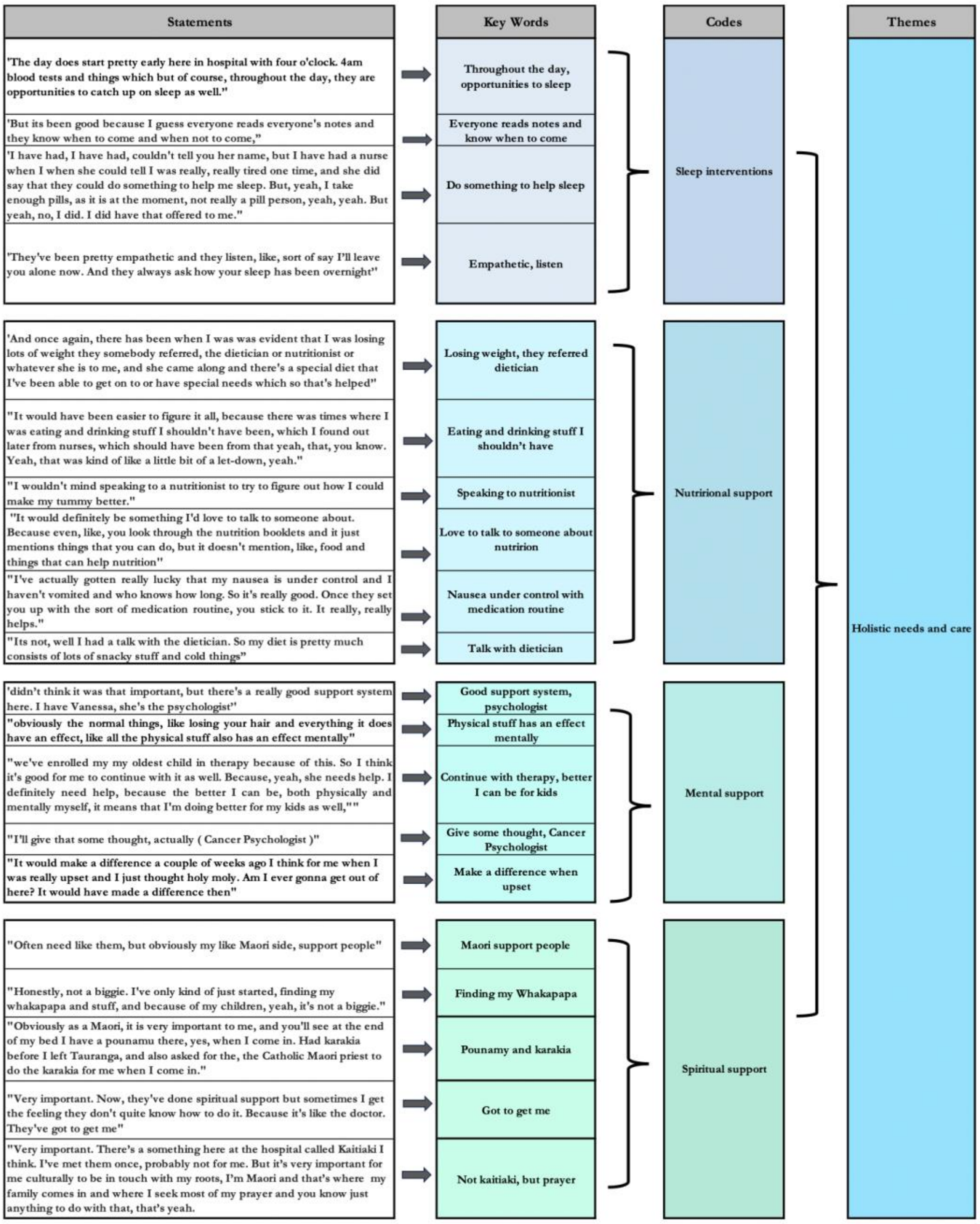
Table 6 Patient pseudonyms

Pseudonym	**Age group**	**Gender**	**Ethnicity**
Patient A	Above 65	Male	NZ European
Patient B	Above 65	Female	NZ European
Patient C	Above 65	Female	Māori
Patient D	Under 65	Female	NZ European
Patient E	Under 65	Female	Māori
Patient F	Above 65	Male	Māori

6.3.1 Holistic needs and care

Figure 3 provides an illustration of how the theme 'Holistic needs and care' was derived from what patients have communicated during the interview.

Figure 3 Holistic needs and care



Statements	Key Words	Codes	Themes
"The day does start pretty early here in hospital with four o'clock. 4am blood tests and things which but of course, throughout the day, they are opportunities to catch up on sleep as well."	Throughout the day, opportunities to sleep	Sleep interventions	Holistic needs and care
'But its been good because I guess everyone reads everyone's notes and they know when to come and when not to come,"	Everyone reads notes and know when to come		
'I have had, I have had, couldn't tell you her name, but I have had a nurse when I when she could tell I was really, really tired one time, and she did say that they could do something to help me sleep. But, yeah, I take enough pills, as it is at the moment, not really a pill person, yeah, yeah. But yeah, no, I did. I did have that offered to me."	Do something to help sleep		
"They've been pretty empathetic and they listen, like, sort of say I'll leave you alone now. And they always ask how your sleep has been overnight"	Empathetic, listen		
'And once again, there has been when I was was evident that I was losing lots of weight they somebody referred, the dietician or nutritionist or whatever she is to me, and she came along and there's a special diet that I've been able to get on to or have special needs which so that's helped"	Losing weight, they referred dietician	Nutrirional support	
"It would have been easier to figure it all, because there was times where I was eating and drinking stuff I shouldn't have been, which I found out later from nurses, which should have been from that yeah, that, you know. Yeah, that was kind of like a little bit of a let-down, yeah."	Eating and drinking stuff I shouldn't have		
"I wouldn't mind speaking to a nutritionist to try to figure out how I could make my tummy better."	Speaking to nutritionist		
"It would definitely be something I'd love to talk to someone about. Because even, like, you look through the nutrition booklets and it just mentions things that you can do, but it doesn't mention, like, food and things that can help nutrition"	Love to talk to someone about nutririon		
"I've actually gotten really lucky that my nausea is under control and I haven't vomited and who knows how long. So it's really good. Once they set you up with the sort of medication routine, you stick to it. It really, really helps."	Nausea under control with medication routine		
"Its not, well I had a talk with the dietician. So my diet is pretty much consists of lots of snacky stuff and cold things"	Talk with dietician		
'didn't think it was that important, but there's a really good support system here. I have Vanessa, she's the psychologist"	Good support system, psychologist	Mental support	
"obviously the normal things, like losing your hair and everything it does have an effect, like all the physical stuff also has an effect mentally"	Physical stuff has an effect mentally		
"we've enrolled my my oldest child in therapy because of this. So I think it's good for me to continue with it as well. Because, yeah, she needs help. I definitely need help, because the better I can be, both physically and mentally myself, it means that I'm doing better for my kids as well,""	Continue with therapy, better I can be for kids		
"I'll give that some thought, actually (Cancer Psychologist)"	Give some thought, Cancer Psychologist		
"It would make a difference a couple of weeks ago I think for me when I was really upset and I just thought holy moly. Am I ever gonna get out of here? It would have made a difference then"	Make a difference when upset		
"Often need like them, but obviously my like Maori side, support people"	Maori support people	Spiritual support	
"Honestly, not a biggie. I've only kind of just started, finding my whakapapa and stuff, and because of my children, yeah, it's not a biggie."	Finding my Whakapapa		
"Obviously as a Maori, it is very important to me, and you'll see at the end of my bed I have a pounamu there, yes, when I come in. Had karakia before I left Tauranga, and also asked for the, the Catholic Maori priest to do the karakia for me when I come in."	Pounamy and karakia		
"Very important. Now, they've done spiritual support but sometimes I get the feeling they don't quite know how to do it. Because it's like the doctor. They've got to get me"	Got to get me		
"Very important. There's a something here at the hospital called Kaitiaki I think. I've met them once, probably not for me. But it's very important for me culturally to be in touch with my roots, I'm Maori and that's where my family comes in and where I seek most of my prayer and you know just anything to do with that, that's yeah.	Not kaitiaki, but prayer		

Rest was an important aspect to half of the patients interviewed. They demonstrated appreciation when nurses were able to express empathy, accurately assess their need for rest and carry out necessary interventions that would support and optimise rest for them.

"The day does starts pretty early here in hospital with four o'clock. 4am blood tests and things which but of course, throughout the day, they are opportunities to catch up on sleep as well."
"They've been pretty empathetic, and they listen, like, sort of say I'll leave you alone now. And they always ask how your sleep has been overnight."

(Patient A – NZ European male, above 65)

But its been good because I guess everyone reads everyone's notes and they know when to come and when not to come,"

(Patient C - Māori female, above 65)

I have had, I have had, couldn't tell you her name, but I have had a nurse when I when she could tell I was really, really tired one time, and she did say that they could do something to help me sleep. But, yeah, I take enough pills, as it is at the moment, not really a pill person, yeah, yeah. But yeah, no, I did. I did have that offered to me."

(Patient E - Māori female, under 65)

Nutritional support was another aspect that patients saw significance in, as a part of holistic needs and care. Majority of the patients articulated their interest in seeking support from nurses, dieticians or resources that would help maintain their appetite as well as ensure that they are receiving the right nutrition for recovery.

'And once again, there has been when it was was evident that I was losing lots of weight then somebody referred, the dietician or nutritionist or whatever she is to me, and she came along and there's a special diet that I've been able to get on to or have special needs which so that's helped."

(Patient A – NZ European male, above 65)

" "It's not, well I had a talk with the dietician. So, my diet is pretty much consists of lots of snacky stuff and cold things."

(Patient C - Māori female, above 65)

"It would definitely be something I'd love to talk to someone about. Because even, like, you look through the nutrition booklets and it just mentions things that you can do, but it doesn't mention, like, food and things that can help nutrition".
"I've actually gotten really lucky that my nausea is under control, and I haven't vomited and who knows how long. So, it's really good. Once they set you up with the sort of medication routine, you stick to it. It really, really helps."

(Patient D – NZ European female, under 65)

"It would have been easier to figure it all, because there was times where I was eating and drinking stuff I shouldn't have been, which I found out later from nurses, which should have been from that yeah, that, you know. Yeah, that was kind of like a little bit of a let-down, yeah."

(Patient E - Māori female, under 65)

"I wouldn't mind speaking to a nutritionist to try to figure out how I could make my tummy better."

(Patient F - Māori male, above 65)

Patients also acknowledged the negative impact that treatment had on their mental health, however only patient C had access to a cancer psychologist at that point of time. Nonetheless, patients B, D and F expressed their keenness and consideration for support from the cancer psychologist, especially during emotionally challenging moments and periods during treatment.

"*It would make a difference a couple of weeks ago I think for me when I was really upset, and I just thought holy moly. Am I ever gonna get out of here? It would have made a difference then."*

(Patient B - NZ European female, above 65)

"Didn't think it was that important, but there's a really good support system here. I have Vanessa, she's the psychologist."

(Patient C - Māori female, above 65)

"Obviously the normal things, like losing your hair and everything it does have an effect, like all the physical stuff also has an effect mentally."
"we've enrolled my my oldest child in therapy because of this. So, I think it's good for me to continue with it as well. Because, yeah, she needs help. I definitely need help, because the better I can be, both physically and mentally myself, it means that I'm doing better for my kids as well,"

(Patient D – NZ European female, under 65)

"I'll give that some thought, actually (Cancer Psychologist)"

(Patient F - Māori male, above 65)

Lastly, spiritual support was brought up as a crucial element in holistic needs and care especially amongst patients who identified as Māori. All three Māori patients expressed the importance of having spiritual support from various people and in differing forms. This includes having support from people such as nurses, whānau, Catholic Māori priest, karakia and having a pounamu (greenstone, often regarded as a Māori taonga, or precious item). Patient B was the only NZ European who expressed that spiritual support was important and that sometimes it was a challenge for her needs to be understood and met.

"Very important. Now, they've done spiritual support but sometimes I get the feeling they don't quite know how to do it. Because it's like the doctor. They've got to get me."

(Patient B - NZ European female, above 65)

"Very important. There's a something here at the hospital called Kaitiaki I think. I've met them once, probably not for me. But it's very important for me culturally to be in touch with my roots, I'm Maori and that's where my family comes in and where I seek most of my prayer and you know just anything to do with that, that's yeah. "

(Patient C - Māori female, above 65)

" Often need like them, but obviously my like Maori side, support people"
"Honestly, not a biggie. I've only kind of just started, finding my whakapapa and stuff, and because of my children, yeah, it's not a biggie."

(Patient E – Māori female, under 65)

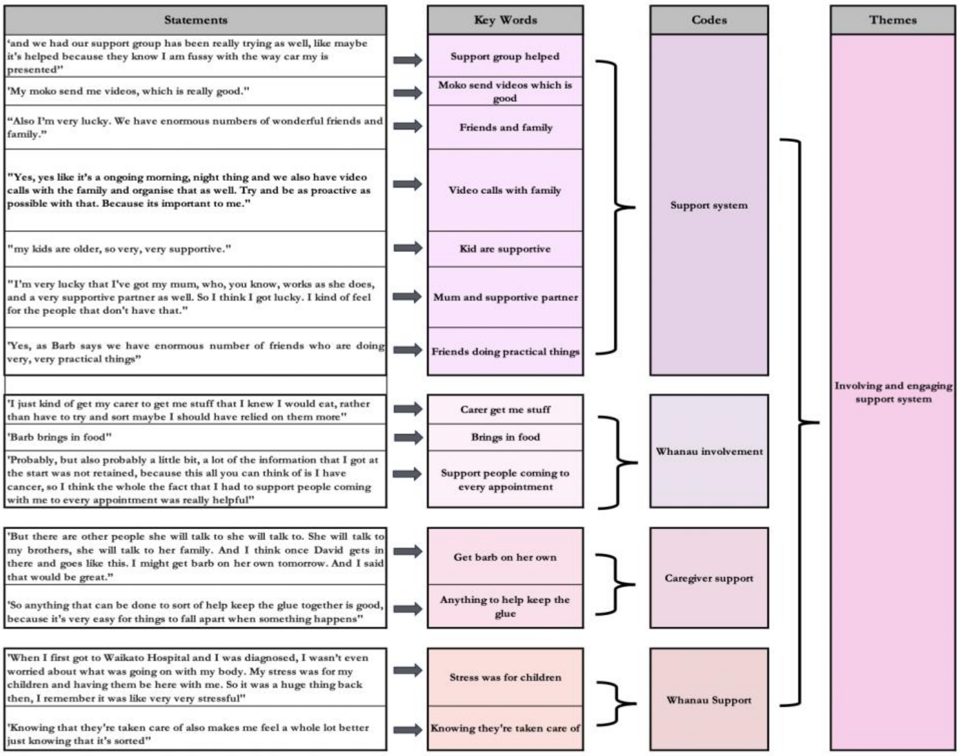
" Obviously as a Maori, it is very important to me, and you'll see at the end of my bed I have a pounamu there, yes, when I come in. Had karakia before I left Tauranga, and also asked for the, the Catholic Maori priest to do the karakia for me when I come in."

(Patient F – Māori male, above 65)

6.3.2 Involving and engaging support system

Figure 4 provides an illustration of how the theme ‘Involving and engaging support system’ was derived from what patients have communicated during the interview.

Figure 4 **Involving and engaging support system**



Statements	Key Words	Codes	Themes
‘and we had our support group has been really trying as well, like maybe it's helped because they know I am fussy with the way car my is presented"	Support group helped	Support system	Involving and engaging support system
'My moko send me videos, which is really good."	Moko send videos which is good		
“Also I’m very lucky. We have enormous numbers of wonderful friends and family.”	Friends and family		
"Yes, yes like it’s a ongoing morning, night thing and we also have video calls with the family and organise that as well. Try and be as proactive as possible with that. Because its important to me."	Video calls with family		
"my kids are older, so very, very supportive."	Kid are supportive		
"I'm very lucky that I've got my mum, who, you know, works as she does, and a very supportive partner as well. So I think I got lucky. I kind of feel for the people that don't have that."	Mum and supportive partner		
'Yes, as Barb says we have enormous number of friends who are doing very, very practical things”	Friends doing practical things		
'I just kind of get my carer to get me stuff that I knew I would eat, rather than have to try and sort maybe I should have relied on them more"	Carer get me stuff	Whanau involvement	
'Barb brings in food"	Brings in food		
'Probably, but also probably a little bit, a lot of the information that I got at the start was not retained, because this all you can think of is I have cancer, so I think the whole the fact that I had to support people coming with me to every appointment was really helpful"	Support people coming to every appointment		
'But there are other people she will talk to she will talk to. She will talk to my brothers, she will talk to her family. And I think once David gets in there and goes like this. I might get barb on her own tomorrow. And I said that would be great.”	Get barb on her own	Caregiver support	
'So anything that can be done to sort of help keep the glue together is good, because it's very easy for things to fall apart when something happens"	Anything to help keep the glue		
'When I first got to Waikato Hospital and I was diagnosed, I wasn’t even worried about what was going on with my body. My stress was for my children and having them be here with me. So it was a huge thing back then, I remember it was like very very stressful"	Stress was for children	Whanau Support	
'Knowing that they're taken care of also makes me feel a whole lot better just knowing that it's sorted"	Knowing they're taken care of		

Having a support system was significantly vital for all patients in the interview. All six patients mentioned that having the support from friends and family is important and that it has helped them cope better during their treatment.

“And we had our support group has been really trying as well, like maybe it's helped because they know I am fussy with the way car my is presented.”

(Patient A – NZ European male, above 65)

“Also, I’m very lucky. We have enormous numbers of wonderful friends and family.”
“Yes, as Barb says we have enormous number of friends who are doing very, very practical things.”

(Patient B - NZ European female, above 65)

"Yes, yes like it's an ongoing morning, night thing and we also have video calls with the family and organise that as well. Try and be as proactive as possible with that. Because it's important to me."

(Patient C - Māori female, above 65)

"I'm very lucky that I've got my mum, who, you know, works as she does, and a very supportive partner as well. So, I think I got lucky. I kind of feel for the people that don't have that."

(Patient D – NZ European female, under 65)

"My kids are older, so very, very supportive."

(Patient E – Māori female, under 65)

'My moko send me videos, which is really good."

(Patient F – Māori male, above 65)

While not all patients had their whānau physically present with them, patients who did such as patient B, D and E mentioned how involving in their care has been helpful during their treatment. Whānau were involved by bringing them food and items or being present during appointments to help retain information. This demonstrates how physical presence of support people has added benefits in optimising patient-centred and equitable care.

"My partner brings in food."

(Patient B - NZ European female, above 65)

"Probably, but also probably a little bit, a lot of the information that I got at the start was not retained, because this all you can think of is I have cancer, so I think the whole the fact that I had to support people coming with me to every appointment was really helpful."

(Patient D – NZ European female, under 65)

"I just kind of get my carer to get me stuff that I knew I would eat, rather than have to try and sort maybe I should have relied on them more."

(Patient E – Māori female, under 65)

Although having the support from whānau has been helpful to patients during treatment, patient B and D also acknowledged the challenges and stressors that their support people face. In addition, they shared that knowing their main support person is supported either by nurses or other support groups and resources would help ease their worries and reduce emotional and mental burden.

"But there are other people she will talk to she will talk to. She will talk to my brothers, she will talk to her family. And I think once David gets in there and goes like this. I might get barb on her own tomorrow. And I said that would be great."

(Patient B - NZ European female, above 65)

"So anything that can be done to sort of help keep the glue together is good, because it's very easy for things to fall apart when something happens"

(Patient D – NZ European female, under 65)

Apart from caregiver support, it was also noted that female patients who had children were concerned about the well-being of their children, and having the assurance that they were looked after gave them substantial relief.

"When I first got to Waikato Hospital and I was diagnosed, I wasn't even worried about what was going on with my body. My stress was for my children and having them be here with me. So it was a huge thing back then, I remember it was like very very stressful"

(Patient C - Māori female, above 65)

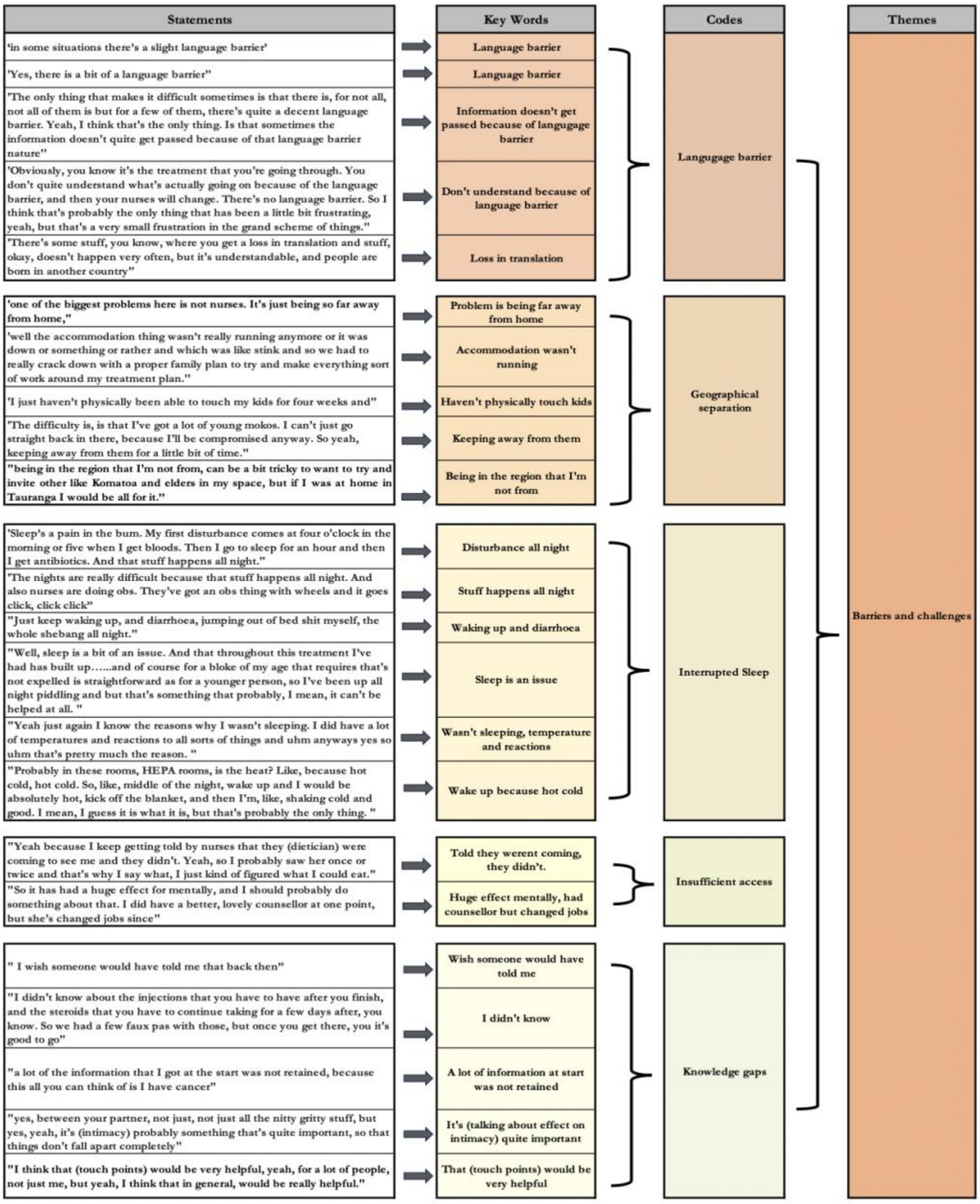
'Knowing that they're taken care of also makes me feel a whole lot better just knowing that it's sorted."

(Patient D – NZ European female, under 65)

6.3.3 Barriers and challenges

Figure 5 provides an illustration of how the theme 'Barriers and challenges' was derived from what patients have communicated during the interview.

Figure 5 Barriers and challenges



Statements	Key Words	Codes	Themes
‘in some situations there’s a slight language barrier’	Language barrier	Langugage barrier	Barriers and challenges
'Yes, there is a bit of a language barrier"	Language barrier		
"The only thing that makes it difficult sometimes is that there is, for not all, not all of them is but for a few of them, there's quite a decent language barrier. Yeah, I think that's the only thing. Is that sometimes the information doesn't quite get passed because of that language barrier nature"	Information doesn’t get passed because of langugage barrier		
'Obviously, you know it's the treatment that you're going through. You don't quite understand what's actually going on because of the language barrier, and then your nurses will change. There's no language barrier. So I think that's probably the only thing that has been a little bit frustrating, yeah, but that's a very small frustration in the grand scheme of things."	Don't understand because of language barrier		
"There's some stuff, you know, where you get a loss in translation and stuff, okay, doesn't happen very often, but it's understandable, and people are born in another country"	Loss in translation		
'one of the biggest problems here is not nurses. It's just being so far away from home,"	Problem is being far away from home	Geographical separation	
'well the accommodation thing wasn't really running anymore or it was down or something or rather and which was like stink and so we had to really crack down with a proper family plan to try and make everything sort of work around my treatment plan."	Accommodation wasn't running		
'I just haven't physically been able to touch my kids for four weeks and"	Haven't physically touch kids		
"The difficulty is, is that I've got a lot of young mokos. I can't just go straight back in there, because I'll be compromised anyway. So yeah, keeping away from them for a little bit of time."	Keeping away from them		
"being in the region that I'm not from, can be a bit tricky to want to try and invite other like Komatoa and elders in my space, but if I was at home in Tauranga I would be all for it."	Being in the region that I'm not from		
'Sleep’s a pain in the bum. My first disturbance comes at four o'clock in the morning or five when I get bloods. Then I go to sleep for an hour and then I get antibiotics. And that stuff happens all night."	Disturbance all night	Interrupted Sleep	
"The nights are really difficult because that stuff happens all night. And also nurses are doing obs. They've got an obs thing with wheels and it goes click, click click”	Stuff happens all night		
"Just keep waking up, and diarrhoea, jumping out of bed shit myself, the whole shebang all night."	Waking up and diarrhoea		
"Well, sleep is a bit of an issue. And that throughout this treatment I’ve had has built up…...and of course for a bloke of my age that requires that's not expelled is straightforward as for a younger person, so I've been up all night piddling and but that's something that probably, I mean, it can't be helped at all. "	Sleep is an issue		
"Yeah just again I know the reasons why I wasn’t sleeping. I did have a lot of temperatures and reactions to all sorts of things and uhm anyways yes so uhm that’s pretty much the reason. "	Wasn't sleeping, temperature and reactions		
"Probably in these rooms, HEPA rooms, is the heat? Like, because hot cold, hot cold. So, like, middle of the night, wake up and I would be absolutely hot, kick off the blanket, and then I'm, like, shaking cold and good. I mean, I guess it is what it is, but that's probably the only thing. "	Wake up because hot cold		
"Yeah because I keep getting told by nurses that they (dietician) were coming to see me and they didn't. Yeah, so I probably saw her once or twice and that's why I say what, I just kind of figured what I could eat."	Told they werent coming, they didn’t.	Insufficient access	
"So it has had a huge effect for mentally, and I should probably do something about that. I did have a better, lovely counsellor at one point, but she's changed jobs since"	Huge effect mentally, had counsellor but changed jobs		
" I wish someone would have told me that back then”	Wish someone would have told me	Knowledge gaps	
"I didn't know about the injections that you have to have after you finish, and the steroids that you have to continue taking for a few days after, you know. So we had a few faux pas with those, but once you get there, you it's good to go"	I didn't know		
"a lot of the information that I got at the start was not retained, because this all you can think of is I have cancer"	A lot of information at start was not retained		
"yes, between your partner, not just, not just all the nitty gritty stuff, but yes, yeah, it's (intimacy) probably something that's quite important, so that things don't fall apart completely"	It's (talking about effect on intimacy) quite important		
"I think that (touch points) would be very helpful, yeah, for a lot of people, not just me, but yeah, I think that in general, would be really helpful."	That (touch points) would be very helpful		

During the interviews, patients shared some challenges and barriers that they faced during treatment. One of which was the language barrier. Patient A, D and F mentioned that they encountered some language barrier when interacting with nurses. Patient D and F further elaborated that communication sometimes gets lost in translation, and information shared with nurses does not get passed on to oncoming nurses. While they expressed understanding and stated that it was a small concern, there was still some frustration observed.

"In some situations, there's a slight language barrier."

(Patient A – NZ European male, above 65)

"Yes, there is a bit of a language barrier."

"The only thing that makes it difficult sometimes is that there is, for not all, not all of them is but for a few of them, there's quite a decent language barrier. Yeah, I think that's the only thing. Is that sometimes the information doesn't quite get passed because of that language barrier nature."

"Obviously, you know it's the treatment that you're going through. You don't quite understand what's actually going on because of the language barrier, and then your nurses will change. There's no language barrier. So, I think that's probably the only thing that has been a little bit frustrating, yeah, but that's a very small frustration."

(Patient D – NZ European female, under 65)

"There's some stuff, you know, where you get a loss in translation and stuff, okay, doesn't happen very often, but it's understandable, and people are born in another country."

(Patient F – Māori male, above 65)

Patients who were out of their hometown also found it challenging to be away from family and support people for extended periods of time during treatment. On top of that, efforts to remain physically close to family and support were also impacted by side effects of treatment or the lack of resources and accommodation for family to travel with the patient.

"Well, the accommodation thing wasn't really running anymore, or it was down or something or rather and which was like stink and so we had to really crack down with a proper family plan to try and make everything sort of work around my treatment plan."

"I just haven't physically been able to touch my kids for four weeks…"

"Being in the region that I'm not from, can be a bit tricky to want to try and invite other like Komatoa and elders in my space, but if I was at home in Tauranga I would be all for it."

(Patient C - Māori female, above 65)

"One of the biggest problems here is not nurses. It's just being so far away from home,"

"The difficulty is, is that I've got a lot of young mokos. I can't just go straight back in there because I'll be compromised anyway. So yeah, keeping away from them for a little bit of time."

(Patient F – Māori male, above 65)

Despite having sleep interventions put in place as mentioned earlier in the theme 'Holistic needs and care', the majority of the patients still faced difficulties having uninterrupted rest. Four out of five of the patients that brought up having interrupted sleep attributed it to the side effects of treatment such as fever, diarrhoea, and low blood count. This resulted in nurses having to carry out interventions at night. Apart from that, patients B and C also pointed out environmental factors such as noise from nursing equipment and constant changing of centralised room temperature.

Well, sleep is a bit of an issue. And that throughout this treatment I've had has built up…...and of course for a bloke of my age that requires that's not expelled is straightforward as for a younger person, so I've been up all-night piddling and but that's something that probably, I mean, it can't be helped at all.

(Patient A – NZ European male, above 65)

"Sleep's a pain in the bum. My first disturbance comes at four o'clock in the morning or five when I get bloods. Then I go to sleep for an hour and then I get antibiotics. And that stuff happens all night."

"The nights are really difficult because that stuff happens all night. And also, nurses are doing obs. They've got an obs thing with wheels and it goes click, click click".

(Patient B - NZ European female, above 65)

"Yeah, just again I know the reasons why I wasn't sleeping. I did have a lot of temperatures and reactions to all sorts of things…so… that's pretty much the reason."

(Patient C - Māori female, above 65)

"Probably in these rooms, HEPA rooms, is the heat? Like, because hot cold, hot cold. So, like, middle of the night, wake up and I would be absolutely hot, kick off the blanket, and then I'm, like, shaking cold and good. I mean, I guess it is what it is, but that's probably the only thing."

(Patient E – Māori female, under 65)

"Just keep waking up, and diarrhoea, jumping out of bed all night."

(Patient F – Māori male, above 65)

Patient D brought up difficulties she faced in accessing resources and support from allied health professionals, which was supposed to help support her mental, psychological, and nutritional needs. Patient D mentioned that she used to have a counsellor, but ever since her counsellor changed jobs, she has yet to find an alternative. In addition, she also mentioned that even though she has been referred to the dietician by the nurses, there was a lack of follow ups and patient D resulted in figuring out her own diet and nutrition.

"So, it has had a huge effect for mentally, and I should probably do something about that. I did have a better, lovely counsellor at one point, but she's changed jobs since."

"Yeah, because I keep getting told by nurses that they (dietician) were coming to see me, and they didn't. Yeah, so I probably saw her once or twice and that's why I say what, I just kind of figured what I could eat."

(Patient D – NZ European female, under 65)

Lastly, knowledge gap was the last barrier and challenge identified in this theme. Patients C and D expressed that they were not fully aware of the treatment plan and its side effects. Patient C expressed that she had hoped she was made aware of the fatigue that came with the treatment earlier, as she did not understand why she was always sleeping and felt frustrated with herself. Patient D did not realise that she had injections and steroids to take after the treatment and had to get over a few stumbling blocks. She also mentioned that it would be helpful to have some education on the side effects that treatment can have on intimacy with her partner. However, she acknowledged that it was difficult to retain information after receiving her diagnosis and expressed that having regular touch points and follow ups to reiterate information would be helpful.

"I wish someone would have told me that back then."

(Patient C - Māori female, above 65)

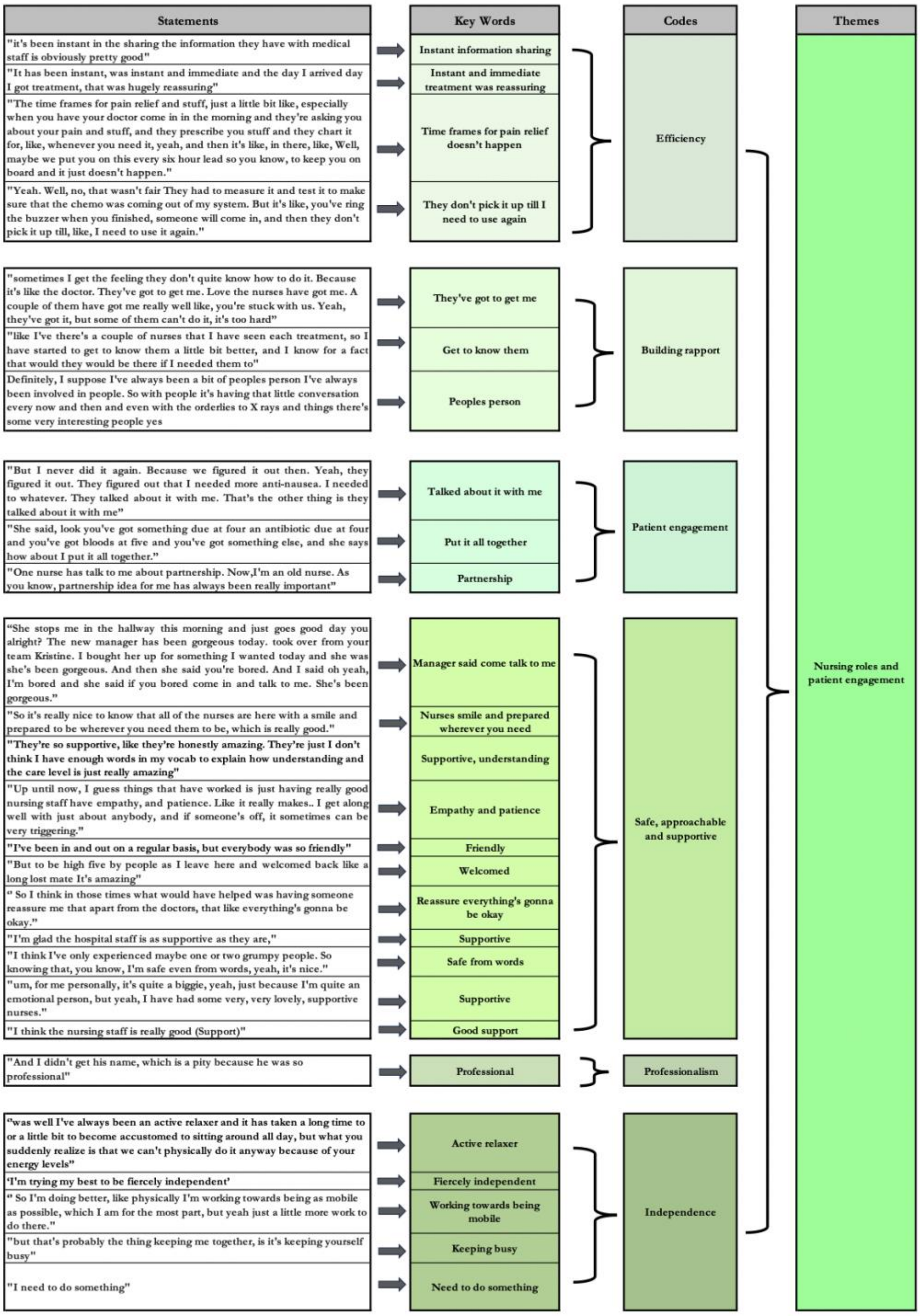
"I didn't know about the injections that you have to have after you finish, and the steroids that you have to continue taking for a few days after, you know. So we had a few faux pas with those, but once you get there, you it's good to go"
"Yes, between your partner, not just, not just all the nitty gritty stuff, but yes, yeah, it's (intimacy) probably something that's quite important, so that things don't fall apart completely."
"I think that (touch points) would be very helpful, yeah, for a lot of people, not just me, but yeah, I think that in general, would be really helpful."
"a lot of the information that I got at the start was not retained, because this all you can think of is I have cancer"

(Patient D – NZ European female, under 65)

6.3.4 Nursing roles and patient engagement

Figure 6 provides and illustration of how the theme 'Nursing roles and patient engagement was generated from the information that patients have shared.

Figure 6 Nursing role and patient engagement



Statements	Key Words	Codes	Themes
"it's been instant in the sharing the information they have with medical staff is obviously pretty good"	Instant information sharing	Efficiency	Nursing roles and patient engagement
"It has been instant, was instant and immediate and the day I arrived day I got treatment, that was hugely reassuring"	Instant and immediate treatment was reassuring		
"The time frames for pain relief and stuff, just a little bit like, especially when you have your doctor come in in the morning and they're asking you about your pain and stuff, and they prescribe you stuff and they chart it for, like, whenever you need it, yeah, and then it's like, in there, like, Well, maybe we put you on this every six hour lead so you know, to keep you on board and it just doesn't happen."	Time frames for pain relief doesn't happen		
"Yeah. Well, no, that wasn't fair They had to measure it and test it to make sure that the chemo was coming out of my system. But it's like, you've ring the buzzer when you finished, someone will come in, and then they don't pick it up till, like, I need to use it again."	They don't pick it up till I need to use again		
"sometimes I get the feeling they don't quite know how to do it. Because it's like the doctor. They've got to get me. Love the nurses have got me. A couple of them have got me really well like, you're stuck with us. Yeah, they've got it, but some of them can't do it, it's too hard"	They've got to get me	Building rapport	
"like I've there's a couple of nurses that I have seen each treatment, so I have started to get to know them a little bit better, and I know for a fact that would they would be there if I needed them to"	Get to know them		
Definitely, I suppose I've always been a bit of peoples person I've always been involved in people. So with people it's having that little conversation every now and then and even with the orderlies to X rays and things there's some very interesting people yes	Peoples person		
"But I never did it again. Because we figured it out then. Yeah, they figured it out. They figured out that I needed more anti-nausea. I needed to whatever. They talked about it with me. That's the other thing is they talked about it with me"	Talked about it with me	Patient engagement	
"She said, look you've got something due at four an antibiotic due at four and you've got bloods at five and you've got something else, and she says how about I put it all together."	Put it all together		
"One nurse has talk to me about partnership. Now,I'm an old nurse. As you know, partnership idea for me has always been really important"	Partnership		
"She stops me in the hallway this morning and just goes good day you alright? The new manager has been gorgeous today. took over from your team Kristine. I bought her up for something I wanted today and she was she's been gorgeous. And then she said you're bored. And I said oh yeah, I'm bored and she said if you bored come in and talk to me. She's been gorgeous."	Manager said come talk to me	Safe, approachable and supportive	
"So it's really nice to know that all of the nurses are here with a smile and prepared to be wherever you need them to be, which is really good."	Nurses smile and prepared wherever you need		
"They're so supportive, like they're honestly amazing. They're just I don't think I have enough words in my vocab to explain how understanding and the care level is just really amazing"	Supportive, understanding		
"Up until now, I guess things that have worked is just having really good nursing staff have empathy, and patience. Like it really makes.. I get along well with just about anybody, and if someone's off, it sometimes can be very triggering."	Empathy and patience		
"I've been in and out on a regular basis, but everybody was so friendly"	Friendly		
"But to be high five by people as I leave here and welcomed back like a long lost mate It's amazing"	Welcomed		
" So I think in those times what would have helped was having someone reassure me that apart from the doctors, that like everything's gonna be okay."	Reassure everything's gonna be okay		
"I'm glad the hospital staff is as supportive as they are,"	Supportive		
"I think I've only experienced maybe one or two grumpy people. So knowing that, you know, I'm safe even from words, yeah, it's nice."	Safe from words		
"um, for me personally, it's quite a biggie, yeah, just because I'm quite an emotional person, but yeah, I have had some very, very lovely, supportive nurses."	Supportive		
"I think the nursing staff is really good (Support)"	Good support		
"And I didn't get his name, which is a pity because he was so professional"	Professional	Professionalism	
"was well I've always been an active relaxer and it has taken a long time to or a little bit to become accustomed to sitting around all day, but what you suddenly realize is that we can't physically do it anyway because of your energy levels"	Active relaxer	Independence	
'I'm trying my best to be fiercely independent'	Fiercely independent		
" So I'm doing better, like physically I'm working towards being as mobile as possible, which I am for the most part, but yeah just a little more work to do there."	Working towards being mobile		
"but that's probably the thing keeping me together, is it's keeping yourself busy"	Keeping busy		
"I need to do something"	Need to do something		

Firstly, patients A and E shared that efficiency was a component of cancer nursing care that they valued. However, they both had very different perspectives and experiences based on the care that they had received. Patient A mentioned that he was happy he received instant information and treatment when he got admitted in the ward. While patient E on the other hand expressed her frustration with regards to the long timeframes that nurses were taking to administer her pain medications and get her toilet pan emptied and replaced for the next use. This was in spite of her making several attempts to seek support from the nurses. She elaborated in the interview that she believed her requests for pain relief sometimes do not reach her primary nurse if someone else came to answer her call bell. In addition, some nurses did not follow through with their commitment even though they said that they will return empty and replace her toilet pan.

"It's been instant in the sharing the information they have with medical staff is obviously pretty good."

"It has been instant, was instant and immediate and the day I arrived day I got treatment, that was hugely reassuring."

(Patient A – NZ European male, above 65)

"The time frames for pain relief and stuff, just a little bit like, especially when you have your doctor come in in the morning and they're asking you about your pain and stuff, and they prescribe you stuff and they chart it for, like, whenever you need it, yeah, and then it's like, in there, like, Well, maybe we put you on this every six hour lead so you know, to keep you on board and it just doesn't happen."

"Yeah. Well, no, that wasn't fair. They had to measure it and test it to make sure that the chemo was coming out of my system. But it's like, you've ring the buzzer when you finished, someone will come in, and then they don't pick it up till, like, I need to use it again."

(Patient E – Māori female, under 65)

While all the patients felt that their nurses have been supportive in general, only half of them clearly described that they valued nurses building a rapport with them and vice versa. Patient A described that as a relatively social person, having a connection with his nurses was vital and it aligned with what he would also naturally tend to do. Similarly, patient D also mentioned that through the treatment period, she has had the opportunity to get to know some of the nurses that she has interacted with more consistently. Patient B also expressed that she valued having a connection with nurses, however further elaborated that sometimes it was hard to build a connection as there were differences in what she had expected and what nurses can provide.

Definitely, I suppose I've always been a bit of people's person I've always been involved in people. So, with people it's having that little conversation every now and then and even with the orderlies to X rays and things there's some very interesting people yes."

(Patient A – NZ European male, above 65)

"Sometimes I get the feeling they don't quite know how to do it. Because it's like the doctor. They've got to get me. Love the nurses have got me. A couple of them have got me really well like, you're stuck with us. Yeah, they've got it, but some of them can't do it, it's too hard."

(Patient B - NZ European female, above 65)

" Like I've there's a couple of nurses that I have seen each treatment, so I have started to get to know them a little bit better, and I know for a fact that they would be there if I needed them to."

(Patient D – NZ European female, under 65)

As a nurse, patient B also expressed how important partnership in nursing care is to her even as a patient. She expressed her appreciation when nurses discussed and included her in nursing cares.

"One nurse has talk to me about partnership. Now, I'm an old nurse. As you know, partnership idea for me has always been really important."

"But I never did it again. Because we figured it out then. Yeah, they figured it out. They figured out that I needed more anti-nausea. I needed to whatever. They talked about it with me. That's the other thing is they talked about it with me."

"She said, look you've got something due at four an antibiotic due at four and you've got bloods at five and you've got something else, and she says how about I put it all together."

(Patient B - NZ European female, above 65)

Having a safe, approachable, and supportive environment was another crucial aspect of cancer nursing care for all of the patients. During the interviews, they expressed gratification on how supportive and friendly the nurses have been in general through various ways, such as asking about their day, being understanding and empathetic, and putting on a smile. However, two of the patients did also bring up some negative experiences. Patient C mentioned that she gets along with anybody but finds it upsetting when she notices that nurses are being task orientated, and in a rush just to get tasks completed. She further adds on by suggesting that it would be helpful if nurses provided some reassurance when providing care, especially when patients are going through life changing treatment. Patient D shared that she had encountered one or two grumpy nurses, but still felt supported by the other nurses overall as they advocated for her.

"I've been in and out on a regular basis, but everybody was so friendly"
"But to be high five by people as I leave here and welcomed back like a long lost mate It's amazing"

(Patient A – NZ European male, above 65)

"She stops me in the hallway this morning and just goes good day you alright? The new manager has been gorgeous today. took over from your team Kristine. I bought her up for something I wanted today, and she was she's been gorgeous. And then she said you're bored. And I said oh yeah, I'm bored and she said if you bored come in and talk to me. She's been gorgeous."

(Patient B - NZ European female, above 65)

"They're so supportive, like they're honestly amazing. They're just I don't think I have enough words in my vocab to explain how understanding and the care level is just really amazing."
"Up until now, I guess things that have worked is just having really good nursing staff have empathy, and patience. Like it really makes. I get along well with just about anybody, and if someone's off, it sometimes can be very triggering."
" So, I think in those times what would have helped was having someone reassure me that apart from the doctors, that like everything's gonna be okay."

(Patient C - Māori female, above 65)

"So, it's really nice to know that all of the nurses are here with a smile and prepared to be wherever you need them to be, which is really good."
"I'm glad the hospital staff is as supportive as they are,"
"I think I've only experienced maybe one or two grumpy people. So, knowing that, you know, I'm safe even from words, yeah, it's nice."

(Patient D – NZ European female, under 65)

"Um, for me personally, it's quite a biggie, yeah, just because I'm quite an emotional person, but yeah, I have had some very, very lovely, supportive nurses."

(Patient E – Māori female, under 65)

"I think the nursing staff is really good (Support)"

(Patient F – Māori male, above 65)

When patient B had an incident where she had soiled the floor and walls of her room due to nausea, vomiting and diarrhoea, she shared that she was really amazed by the professionalism of a male healthcare assistant who was tending to her. While there were several other nurses around helping out with the situation, it was the professionalism of the male healthcare assistant that left the most significant positive impact. This demonstrated how much professionalism was valued in the care that she received.

"And I didn't get his name, which is a pity because he was so professional."

(Patient B - NZ European female, above 65)

Lastly, the majority of the patients also valued being able to remain independent in their care. Even though the side effects of treatment had impacted their physical health, they appreciated nurses advocating and allowing them the opportunities to exercise independence in a safe and appropriate manner.

"…well I've always been an active relaxer and it has taken a long time to or a little bit to become accustomed to sitting around all day, but what you suddenly realize is that we can't physically do it anyway because of your energy levels."

(Patient A – NZ European male, above 65)

'I'm trying my best to be fiercely independent."

(Patient B - NZ European female, above 65)

" So, I'm doing better, like physically I'm working towards being as mobile as possible, which I am for the most part, but yeah just a little more work to do there."

(Patient C - Māori female, above 65)

"But that's probably the thing keeping me together, is it's keeping yourself busy."

(Patient D – NZ European female, under 65)

"I need to do something."

(Patient F – Māori male, above 65)

From this thematic analysis, it was observed that the different themes were of varying priorities and significance to patients. This observation was made based on how frequent each theme was brought up, as well as the depth in which the theme was discussed. Having a safe, approachable, professional, and supportive environment, engaging with whānau and psychosocial support, promoting independence as well as nutritional support were perceived to be of the highest value and priority amongst patients. This conclusion was made as majority, or all of the patients had expressed the significant influence it had during treatment. Therefore, it was also deduced that patients would have higher expectations for these themes as well. Holistic care, which includes supporting rest, mental and spiritual well-being, building rapport, as well as minimising language barrier was perceived to be of moderate value and expectations to patients. While they were still significant to patients, fewer patients related to these themes as significant aspects to cancer care. The remaining themes which include knowledge gaps, efficiency, patient engagement and geographical separation were brought up by only a few patients. This implies that while the remaining themes are crucial to a few patients, they are not the main priorities amongst the overall patient population. After the completion of the thematic analysis, each sub theme was used to create an anonymous online survey for the registered nurses in the Haematology and

Oncology inpatient ward, in accordance with the exploratory sequential approach. This will be further explored in the next section.

Part 2: Quantitative findings

6.4 Demographics of registered nurses

An anonymous online Likert scale survey was created and sent out along with a participant sheet to the work email of all the registered nurses (n = 53) in the Haematology and Oncology in patient ward of Health New Zealand (Te Whatu Ora) Waikato. A type of non-probability sampling design also known as voluntary sample design was used with the aim of achieving an ideal census size of 53 responses (Murairwa, 2015). However, despite multiple attempts to reach out to the nurses through their email, only 15 (n=15) participants responded during the two-week collection period. Amongst the participants, there is a relatively equal distribution of nurses with varying years of experience in nursing. More than half of the participants are aged between 31 to 40 years of age and one third are in the 20 to 30 age range. Only one participant was in the 41 to 50 age range. When asked about the ethnicity they identified as, the majority of the participants identified themselves as Asians, while a quarter of participants identified as NZ European, Māori and Pacific Islander combined. Only one participant identified as South African. Approximately half of the participants have lived in NZ for more than ten years. A quarter have lived in NZ for five years or less and a quarter was born and raised in NZ. This demonstrates the huge diversity in the cultural background within the nursing population as mentioned earlier in this study, which emphasizes again the crucial need to understand the perspectives and expectations of nurses and patients in order to achieve equitable and person-centred cancer care. Table 7 portrays the demographics of registered nurses who took part in the surveys.

Table 7: Registered nurse demographics

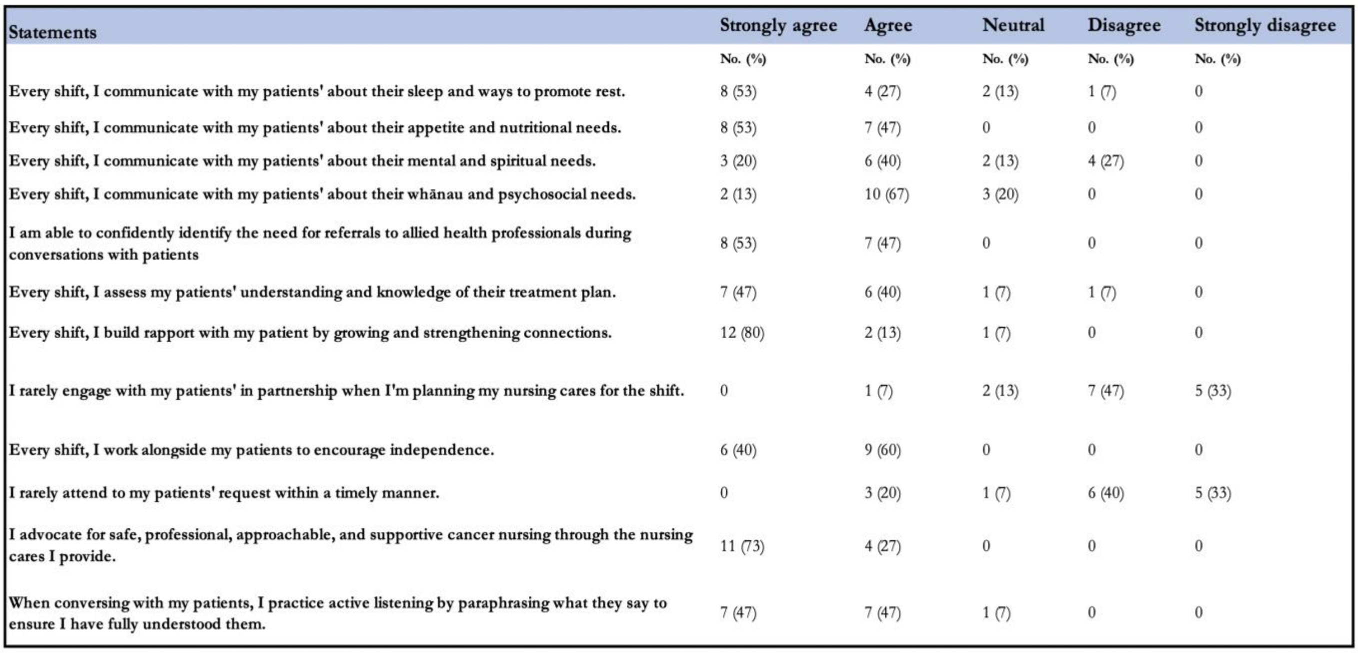
Characteristics	Categories	No.	Percentage (%)
Nursing experience	**Total**	**15**	**100**
	1-2 years	3	20
	3-5 years	3	27
	6-10 years	3	27
	>10 years	3	27
Age group	**Total**	**15**	**100**
	20 - 30	6	53
	31- 40	8	40
	41- 50	1	7
	51 – 60	0	0
	60 +	0	0
Ethnicity	**Total**	**15**	**100**
	NZ European	2	13
	Māori/Pacific Islander	2	13
	Asian	10	67
	Others	1	7
Years lived in NZ (%)	**Total**	**15**	**100**
	< 1 year	0	0
	1-2 years	2	13
	3 – 5 years	2	13
	6-10 years	0	0
	> 10 years	7	47
	Born and raised in NZ	4	27

The following sections will examine how descriptive statistics was used to analyse the data collected from the surveys.

6.5 Descriptive statistics

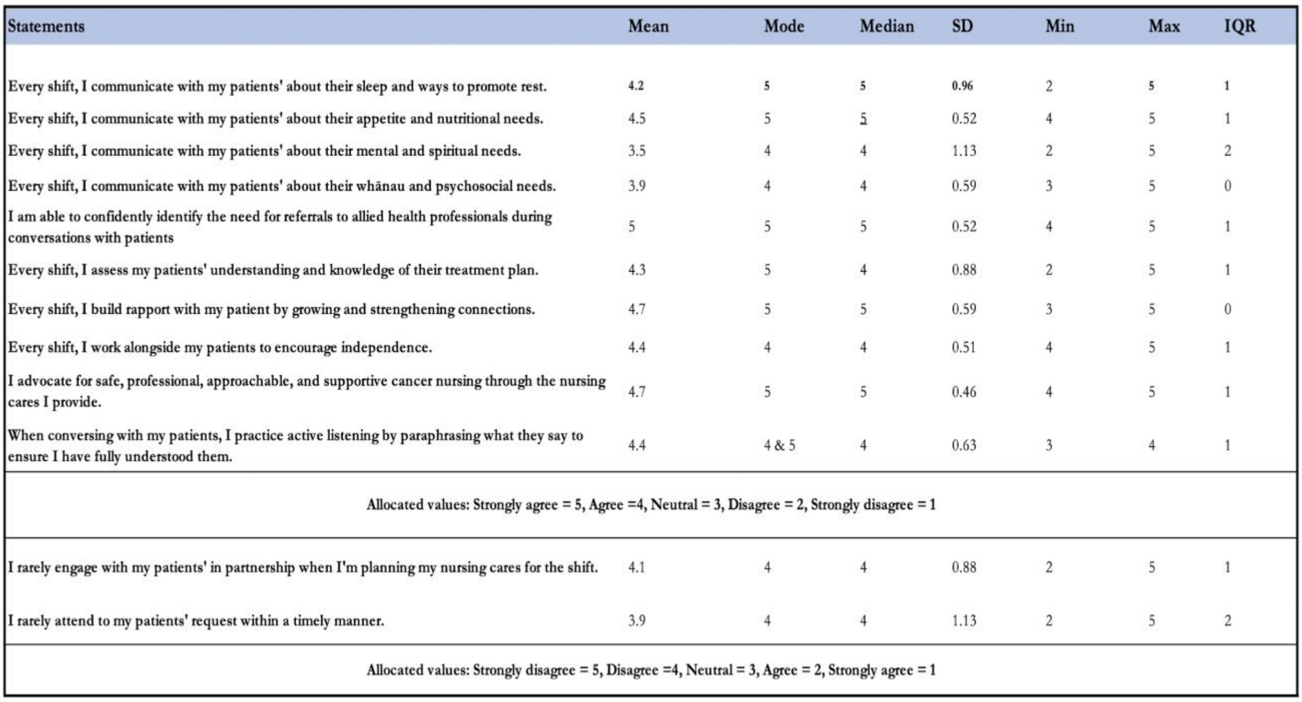
Descriptive statistics is described by Kaliyadan and Kulkarni (2019) as the summary of data, which can be presented using simple measures such as percentage, mean, mode and central tendency. Descriptive statistics in this study will be represented using frequency, which includes number count and percentage, as well as central tendency such as mean, mode, median, standard deviation, minimum and maximum, and interquartile range. Mean refers to the sum of all values added up, divided by the number of participants (n=15). It illustrates the average response that participants have (Kaliyadan & Kulkarni, 2019). Mode portrays the most common response that participants have, and median refers to the middle value across all responses if they were placed in sequential order. It was analysed together with the mean value to determine if there is normal distribution amongst the data or if it is skewed. Normal distribution is classified when the mean and median are the same. A skewed distribution refers to when there are differences between the median and mean due to possible outlier responses (Kotronoulas et al., 2023). In order to have a better understanding of the distribution of responses, standard deviation (SD) was also analysed together with interquartile range (IQR). IQR and SD were used to evaluate consistency and consensus in responses respectively. IQR measured the distribution of the middle portion of the data, while SD measured how far the responses were from the mean (Kotronoulas et al., 2023). For both measurements, a lower score signifies less variability and stronger consensus. When interpreting the data, Kotronoulas et al. (2023) explained that IQR and median should be used as the primary source for interpretation if the data is skewed. Whereas if there is normal distribution, SD can be used. Having an in-depth understanding of the distribution of responses in this analysis is a crucial aspect to determining the perspectives of nurses in relation to person-centred and equitable care, as well as to patients' perspectives and expectations. Table 8 illustrates the frequency of responses, while Table 9 portrays the calculated central tendency.

Table 8 Response frequency



Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Every shift, I communicate with my patients' about their sleep and ways to promote rest.	8 (53)	4 (27)	2 (13)	1 (7)	0
Every shift, I communicate with my patients' about their appetite and nutritional needs.	8 (53)	7 (47)	0	0	0
Every shift, I communicate with my patients' about their mental and spiritual needs.	3 (20)	6 (40)	2 (13)	4 (27)	0
Every shift, I communicate with my patients' about their whānau and psychosocial needs.	2 (13)	10 (67)	3 (20)	0	0
I am able to confidently identify the need for referrals to allied health professionals during conversations with patients	8 (53)	7 (47)	0	0	0
Every shift, I assess my patients' understanding and knowledge of their treatment plan.	7 (47)	6 (40)	1 (7)	1 (7)	0
Every shift, I build rapport with my patient by growing and strengthening connections.	12 (80)	2 (13)	1 (7)	0	0
I rarely engage with my patients' in partnership when I'm planning my nursing cares for the shift.	0	1 (7)	2 (13)	7 (47)	5 (33)
Every shift, I work alongside my patients to encourage independence.	6 (40)	9 (60)	0	0	0
I rarely attend to my patients' request within a timely manner.	0	3 (20)	1 (7)	6 (40)	5 (33)
I advocate for safe, professional, approachable, and supportive cancer nursing through the nursing cares I provide.	11 (73)	4 (27)	0	0	0
When conversing with my patients, I practice active listening by paraphrasing what they say to ensure I have fully understood them.	7 (47)	7 (47)	1 (7)	0	0

Table 9 Central Tendency



Statements	Mean	Mode	Median	SD	Min	Max	IQR
Every shift, I communicate with my patients' about their sleep and ways to promote rest.	4.2	5	5	0.96	2	5	1
Every shift, I communicate with my patients' about their appetite and nutritional needs.	4.5	5	5	0.52	4	5	1
Every shift, I communicate with my patients' about their mental and spiritual needs.	3.5	4	4	1.13	2	5	2
Every shift, I communicate with my patients' about their whānau and psychosocial needs.	3.9	4	4	0.59	3	5	0
I am able to confidently identify the need for referrals to allied health professionals during conversations with patients	5	5	5	0.52	4	5	1
Every shift, I assess my patients' understanding and knowledge of their treatment plan.	4.3	5	4	0.88	2	5	1
Every shift, I build rapport with my patient by growing and strengthening connections.	4.7	5	5	0.59	3	5	0
Every shift, I work alongside my patients to encourage independence.	4.4	4	4	0.51	4	5	1
I advocate for safe, professional, approachable, and supportive cancer nursing through the nursing cares I provide.	4.7	5	5	0.46	4	5	1
When conversing with my patients, I practice active listening by paraphrasing what they say to ensure I have fully understood them.	4.4	4 & 5	4	0.63	3	4	1
Allocated values: Strongly agree = 5, Agree =4, Neutral = 3, Disagree = 2, Strongly disagree = 1							
I rarely engage with my patients' in partnership when I'm planning my nursing cares for the shift.	4.1	4	4	0.88	2	5	1
I rarely attend to my patients' request within a timely manner.	3.9	4	4	1.13	2	5	2
Allocated values: Strongly disagree = 5, Disagree =4, Neutral = 3, Agree = 2, Strongly agree = 1							

6.5.1 Sleep interventions

'' Every shift, I communicate with my patients' about their sleep and ways to promote rest.''

Slightly more than half of the participants strongly agree that they communicate about sleep and rest with their patients. A quarter agreed with the statement, while two were neutral and one disagreed. This resulted in a data that is slightly skewed to the left (Mean: 4.2, Median: 5). Since the data is skewed, IQR and median was used as the primary data to interpret the results, while SD was utilised as extra evidence and support. A median of 5 and IQR of 1 suggests that the majority of the participants consistently strongly agreed with the statement. However, an SD of 0.96 also points out that there are some varying responses. This therefore demonstrates that there is strong consensus amongst participants about communicating with patients on sleep and rest, with a slight variance.

6.5.2 Nutritional support

"Every shift, I communicate with my patients' about their appetite and nutritional needs."

More than half of the participants strongly agreed that they communicate about appetite and nutritional needs with their patients every shift, while the rest responded with agreement. This slight difference explains a mildly skewed data to the left. Once again since the data is skewed, IQR and median was used as the primary data to interpret the results, while SD was utilised as extra evidence and support. Despite having skewed data, an IQR of 1, median of 5 and SD of 0.52 suggests that there is very strong and consistent consensus amongst the nurses. Thus, it can be concluded that there is very strong consensus and consistency amongst the responses of nurses that they communicate with their patients about appetite and nutritional needs every shift.

6.5.3 Mental and spiritual support

"Every shift, I communicate with my patients' about their mental and spiritual needs."

Two thirds of the participants either strongly agree or agree with the statement, while one third of the participants was either neutral or disagreed. Due to the differing responses, the data is skewed to the left (Mean: 3.5, Median: 4). Using IQR and median as the primary data to interpret the results, an IQR of 2 and SD of 1.13 indicates that while most of the participants agree with the statement, there are mixed consensus and inconsistent opinions when it comes to communicating with patients about mental and spiritual needs amongst participants with some disagreements.

6.5.4 Whānau and psychosocial needs

"Every shift, I communicate with my patients' about their whānau and psychosocial needs."

More than two thirds of the participants agree with the statement. Two participants strongly agreed and the remaining three stayed neutral. Due to the few lower responses, the data was slightly skewed to the left (Mean: 3.9, Median: 4). Using IQR of 0, median of 4 and SD of 0.59 for analysis, all of the data concludes that there is very strong consensus and consistency amongst the participants agreeing that they communicate with patients about whānau and psychosocial needs every shift.

6.5.5 Access to support

"I am able to confidently identify the need for referrals to allied health professionals during conversations with patients (e.g.Dietician, Cancer Psychologists, Kaitiaki/Chaplains, Social workers, cancer support groups)."

Slightly more than half the participants strongly agreed with the statement, while the rest chose 'Agree'. With a mean response, mode, and median value of 5, it can be concluded that the data is well distributed. Therefore, SD was used in this statement as the primary source to evaluate the data instead. With a SD of 0.52, IQR of 1, as well mean, mode and median of 5, it can therefore be concluded that there is very strong consensus and consistently amongst all the participants when it comes to strongly agreeing that they are confident in identifying the need for referrals to allied health professionals.

6.5.6 Knowledge gaps

"Every shift, I assess my patients' understanding and knowledge of their treatment plan."

Majority of the participants strongly agreed or agreed with the statement, however there were 2 participants who chose 'Neutral' and 'Disagree'. This explains the slight skew to the right with a mean response value of 4.3 and median of 4. Using IQR and median as the primary measurement for analysis, an IQR of 1 and median of 4 suggests that there is relatively strong consensus and agreement amongst the participants in assessing patients' understanding and knowledge of their treatment plan. However, an SD of 0.88 suggests that there are still some slight inconsistencies.

6.5.7 Building rapport

"*Every shift, I build rapport with my patient by growing and strengthening connections."*

All of the participants except one either strongly agreed or agreed to the statement. One patient responded with neutral, therefore resulting in a slight skewed to the left (Median: 5, Mean: 4.7). However, when analysing IQR of 0 and median of 5, it shows that there is very strong consensus and consistency amongst participants in strongly agreeing that they build rapport with patients every shift. This is also supported by a SD of 0.59.

6.5.8 Patient engagement

"I rarely engage with my patients in partnership when I'm planning my nursing cares for the shift."

Majority of the participants either strongly disagree or disagree with the statement. However, three participants had differing responses, therefore leading to a slightly skewed to the right (Mean: 4.1, Median: 4). An IQR of 1 and median of 4 suggests that there is strong consensus amongst participants with some variance consensus, as also supported by a SD of 0.88.

6.5.9 Independence

"Every shift, I work alongside my patients to encourage independence."

All of the participants either strongly agreed or agreed with the statement. With a mean response value of 4.4 and median of 4, it shows that the data is slightly skewed to the right. However, an IQR of 1 and standard deviation of 0.51 suggest that there is consistent and strong consensus amongst participants agreeing that they work alongside patients every shift to encourage independence.

6.6.1 Efficiency

"I rarely attend to my patients' request within a timely manner."

The majority of the participants either strongly disagreed or disagreed with the statement (Mode: 4). However, 4 participants shared differing responses (Mean: 3.9, Median: 4), which led the data to being slightly skewed to the left. An IQR of 2 and median of 4 suggest that whilst most participants disagreed with the statement, there is a considerable number of differing and inconsistent opinions. This is supported by a standard deviation of 1.13.

6.6.2 Safe, professional, approachable, and supportive

"I advocate for safe, professional, approachable, and supportive cancer nursing through the nursing cares I provide."

Three quarters of the participants strongly agree with this statement. With a mean response value of 4.7 and median of 5, it can be concluded that the data is slightly skewed to the left. However, an IQR of 1 and standard deviation of 0.46, suggests that there is a very high level of consensus, consistency, and agreement amongst participants when it comes to advocating for safe, professional, approachable, and supportive care.

6.6.3 Language barrier

"When conversing with my patients, I practice active listening by paraphrasing what they say to ensure I have fully understood them."

All of the participants except one either strongly agreed or agreed to the statement. The single outlier response resulted in a data that is skewed to the right (Mean: 4.4 , Median: 4). However, with an IQR of 1 and median of 4, it can be concluded that most of the patients consistently agreed with the statement. This therefore suggests that there is strong and consistent consensus amongst participants with minimal variance, in agreeing that they practice active listening.

Overall based on the descriptive statistics, the themes that had strong consensus and consistency amongst nurses were whānau and psychosocial needs, insufficient access, building rapport, as well as having a safe, professional, approachable, and supportive environment. Themes that were classified as moderate consensus and consistency include sleep intervention, nutritional support, knowledge gaps, patient engagement, independence, and language barrier. Efficiency, mental support, and spiritual support were the remaining themes that were observed to have inconsistent consensus and more mixed opinions. With the analysis of both qualitative and quantitative data completed, the following chapter will further elaborate and discuss the integration of both data sets using data triangulation in order to answer the research questions.

Chapter VI: Discussion

The beginning of knowledge is the discovery of something we do not understand.

Frank Herbert, 1920 – 1986

7.1 Introduction

This study employed an exploratory sequential mixed methods research design to explore the perspectives and expectations of patients and nurses in a Haematology and Oncology inpatient ward. The aim was to explore and gain insights into their perspectives and expectations in relation to person-centred and equitable cancer care. Henceforth, three guiding research questions were formulated in order to achieve this aim. Literature searches, semi-structured patient interviews and anonymous online staff surveys were also carried out and analysed accordingly. Creswell and Inoue (2025) suggested that further analysis is still required to integrate the findings and draw connections that would provide a comprehensive representation of patients' and nurses' perspectives and expectations. Therefore, this chapter will be organised to achieve this in three different parts. The first part focuses on addressing the three research questions through methodological triangulation that combines, integrates, and compares qualitative and quantitative data findings. The three research questions are:

1. What perspectives and expectations do Haematology, and Oncology patients have in relation to person-centred and equitable care?
2. What perspectives and expectations do Haematology, and Oncology registered nurses have in relation to person-centred and equitable care?
3. How do Haematology, and Oncology registered nurses perceive patients' perceptions and expectations in relation to person-centred and equitable cancer care?

Hofler et al. (2018), also highlights that conclusions drawn from this study could incur implications to the current cancer care system as well as future research. Therefore, part two of this discussion would explore this study's impact on current practice, and part three would provide an overview of the limitations, conclusions and implications that could be used to inform future research.

Part 1: Research questions

7.2 What are the Haematology, and Oncology patients' perspectives and expectations in relation to person-centred and equitable cancer nursing care?

The perspectives and expectations of patients are important aspects to understanding and improving person-centred and equitable cancer care in NZ. It creates more awareness amongst nurses with regards to patients' needs and wants, in order to best provide care that would optimise health outcomes. The perspectives and expectations of patients were explored in the qualitative phase of this study using semi-structured interviews. The themes that emerged will be used to discuss the perspectives and expectations of Haematology and Oncology patients, based on the highest to lowest perceived value and expectation that was identified in the qualitative findings.

Having a safe, approachable, professional, and supportive environment, engaging in whānau and psychosocial support, promoting independence as well as nutritional support were perceived to be of the highest value and priority amongst patients. Firstly, while patients value a positive environment that is safe, approachable, professional, and supportive, the findings from other studies such as those done by Egan et al. (2016) and Perelini et al. (2025), show that patients have varying perceptions of what a positive environment means to them. Other aspects such as having an empathetic, compassionate, culturally safe, and caring environment were also mentioned throughout the studies done as part of the literature review. This disparity demonstrates that since having a positive environment is significant to a wide range of patients, nurses would in turn be expected to understand and tailor their care according to what it means to patients on an individual level. This suggests a need for connections and rapport to be built between patients and nurses, which was an important aspect that was also highlighted by at least half of the patients both in this study as well as in others.

Whānau and psychosocial support emerged as the next most crucial aspect of cancer care amongst patients during the interview. It was clearly demonstrated that the physical presence, engagement, and involvement of whānau played a major role in helping patients get through treatment smoothly. This is comparable to the findings of other studies in the literature review, such as those done by Egan et al. (2016); Lamprell et al. (2023) and Perelini et al. (2025), which concluded that family and friends were pivotal sources of support for patients in a multitude of ways. However, patients in these studies also brought up deeper insights to whānau and psychosocial support.

Apart from receiving support from whānau, the access to psychosocial support and resources available for whānau during treatment was also one of the biggest contributing factors in influencing patients' mental and emotional well-being. This is especially significant amongst patients who are physically away from family, as well as female patients with young children. Hence, it can be inferred that patients would not only appreciate receiving support, but also appreciate that resources provided to them include information and support that their caregivers and whānau can access as well.

Patients also expressed that they highly valued maintaining physical independence and autonomy in their daily activities. Therefore, they held the expectation that nurses would support and advocate for them in this aspect. While other studies such as those done by Puhringer et al. (2015) and Keogh et al. (2017), had similar findings, they were solely based on the perspectives of nurses, which suggests the need for further studies to be done in order to fully grasp its significance to patients.

Lastly, the majority of the patients also demonstrated that they understood the significance of maintaining good nutrition through their expression of interest in seeking support from nurses and dieticians. While this is consistent with the finding from Garcia, Whitehead, & Winter. (2015), the study was conducted based on the perspectives of nurses and was inconsistent with other studies included their research. Thus, this also suggests the need for more in-depth research to be done based on patients' perspectives.

Holistic care, including supporting rest, access to support, mental and spiritual well-being, as well as minimising language barrier was perceived to be of moderate value to patients. While they are still crucial to patients, fewer patients spoke about these themes as significant aspects of cancer care. Despite nursing interventions, many patients still faced interrupted sleep due to side effects from treatment and environmental noise disruptions. However, patients were observed to prefer non-pharmacological interventions over oral sedatives. This is consistent with the study conducted by Delpachitra et al. (2020). Apart from having sufficient rest, patients also demonstrated that they understood the significance of maintaining mental well-being through their expression of interest in seeking support. This finding was inconsistent with the study done by Aldez et al. (2017), that claimed patients lacked insight and incentive to seek support. However, despite their expressed interest, the majority of these patients have not had access to support and resources from nurses or other professionals. The lack of support is consistent with findings from studies by Dew et al. (2015), Egan et al. (2016), Koea et al. (2019) and Yeo et al. (2023), where access to support was sometimes a challenge.

The interviews also demonstrated that Māori patients were also less likely to have access to and self-advocate their need to seek for support as compared to the NZ European patients. While the reason for the lack of self-advocacy and support was not explored in the interview, other studies such as Prip et al. (2018) suggest insufficient insights, motivation, fear of judgement and the perception that their symptoms are not severe enough. In addition, male participants in the patient interviews were also observed to be more reserved when compared to female participants. This was hypothesised by noting that male participants required more prompting questions to gather in-depth information. While female patients on the other hand appeared more proactive in sharing details of their experiences and less reserved especially when it came to discussing mental and emotional well-being. These findings suggest that proactive initiation from nurses, as well as ongoing support and follow through of referrals to other support resources and professionals will help support patients in receiving the care that they need. Last but not least, the majority of the patients who expressed that spiritual support was vital to them were observed to have sought their own support from people that they know. This is contradictory to other studies done in NZ such as Dew et al. (2015), Prip et al. (2018), and Perelini et al. (2025) which suggests that patients relied more heavily on nurses for spiritual support and struggled to have their needs met.

Minimising language barrier was also a relatively crucial aspect amongst patients, with half of the patients expressing that communication was sometimes broken or lost in translation. This impeded their needs from being met, despite having attempted to self-advocate for themselves. The findings are consistent with other studies such as those by Egan et al. (2016) and Perelini et al. (2025), which state that there are gaps in person-centred and culturally safe communication.

Finally, patient engagement, knowledge gaps and efficiency were the remaining themes that were brought up by two patients. This implies that while these themes are important, they may not be generalisable to the overall patient population. However, the study done by Koea et al. (2019) suggest otherwise, indicating that patient engagement is strongly associated with patient satisfaction and improved nursing care. In addition, Koea et al. (2019) also showed that minimising knowledge gaps not only results in better self-advocacy and support especially for Māori and Pacific Islander patients, but also reduced anxiety and mental distress amongst a considerable population of patients. Two patients in the interview shared how the efficiency of nurses both negatively and positively impacted their experience and perception of care during treatment. This finding was consistent with other studies done by Egan et al. (2016) and Prip et al. (2018), where some patients highlighted barriers with regards to timeliness amongst nurses in meeting their needs. This suggests that while patients may not perceive these themes to be of the highest priorities, they still have significant influence on patient outcomes and therefore it can be concluded that nurses are still expected within their professional scope to ensure that they are not disregarded. This is particularly relevant to Māori and Pacific Islanders who may encounter more barriers when navigating cancer treatment. Interestingly, while all the themes brought up by patients in the interview were discussed in studies identified from the literature review, seuqnone of these patients mentioned requiring support for finance and service accessibility, which were significant factors for patients in those studies, especially amongst those of lower socioeconomic statuses.

These conclusions only provide a one-sided overview of what person-centred and equitable cancer nursing care entails based on the perspectives and expectations of patients. Therefore, the following research question will aim to discuss and further analyse the perspectives and expectations of registered nurses.

7.3 What perceptions and expectations do Haematology, and Oncology registered nurses have in relation to person-centred and equitable cancer nursing care?

Having a clear understanding of the perspectives and expectations nurses have is crucial, as they play a major role in influencing cancer care and patient outcomes. Based on the descriptive data collected in the quantitative phase, this research question will outline the perspectives and expectations of registered nurses from the highest to the lowest level of consistency and collective agreement amongst nurses.

Based on the descriptive data collected, the themes that emerged with strong consistency and agreement amongst nurses are nutritional support, access to support, independence, building rapport, as well as safe, professional, approachable, and supportive environment. Firstly, the majority of the nurses indicated that they advocated for nutritional support and independence on every shift. However, some discrepancies were noted when comparisons were made with other studies. In the studies done by Puhringer et al. (2015) and Keogh et al. (2017), only half of the nursing participants were shown to actively promote and advocate for nutrition and independence. This suggests that nurses in general regard nutritional support and independence as expected vital aspects of cancer care. However potential variabilities could still be present in different settings. Nurses also indicated that they were confident in assessing and referring patients to other allied health for support. This finding was comparable to the findings from Puhringer et al. (2015) and Keogh et al. (2017), indicating that nurses are aware of the significant role other health professionals play in ensuring that patients receive the support they require. It also implies that nurses understand the expectations surrounding their role when it comes to assessing and appropriately referring patients to other professionals for support.

The descriptive statistics revealed that nurses actively promoted a positive environment that is safe, professional, approachable, and supportive. While there were no comparable findings from studies in the literature review, the study by Aldez et al. (2017) mentioned that nurses recognised the value of having an empathetic and caring environment. This highlights that there are also differing perspectives amongst nurses as to what a positive environment entail. In order to ensure that patients are cared for in an environment that best optimises patient outcome, nurses were also observed to heavily prioritise the building of rapport with patients. This is consistent to findings by Aldez et al. (2017), Matthews et al. (2020), which demonstrate that nurses recognise the benefits and significance of building rapport and connections with patients to better understand their needs.

Patient engagement, language barrier as well as whānau and psychosocial support were themes that also garnered strong collective agreement and consistency amongst nurses. Despite that, slight variances and mixed opinions were noted at the same time. The majority of the participants agreed that they engaged with patients when making decisions on nursing care. However, there were several differing responses that indicated otherwise. Similarly, the study conducted by Prip et al. (2018), have also demonstrated comparable findings that had varying responses. This reinforces the conclusion that while most nurses are aware of the significance that patient engagement has on treatment outcome, some of them struggle to include patients in the planning and decision-making process. It could be theorised that nurses struggled to engage patients due to the perceived lack of time, and high work demands as shown in studies by Puhringer et al. (2015), Whitehead et al. (2015) and Keogh et al. (2017). All except one nurse expressed that they practiced active listening and paraphrasing to ensure effective and clear communication. While there were insufficient studies in the literature review exploring nurses' perspectives on language barrier and communication, findings from Puhringer et al. (2015) and Aldez et al. (2017) did briefly mention that nurses feel improvements are still required to ensure clear and effective communication between nurses and patients. Whānau and psychosocial support also attained some mixed responses from the survey. While the perspectives of nurses were not extensively explored in the literature review with regards to whānau and psychosocial support, studies done by Dew et al. (2015), Egan et al. (2016), Aldez et al. (2017), Matthews et al. (2020), Lamprell et al. (2023) and Perelini et al. (2025) did acknowledge the importance of whānau and psychosocial support in reducing emotional distress amongst patients. In addition, findings from Peniamina et al. (2021) and Lamprell et al. (2023) also pointed out that nurses felt patients lack the insight and incentives to seek support. This could potentially justify the mixed responses received in the surveys and imply that there might be some varying perspectives and expectations amongst nurses as to whether nurses or patients should take the first initiative in suggesting whānau and psychosocial support.

Mental and spiritual support, efficiency, knowledge gaps and sleep interventions were the remaining themes that emerged as vital aspects of person-centred and equitable cancer care. However, unlike the previous themes, nurses had more noticeable variance and discrepancies in perspectives within these remaining themes. Limited studies within the literature review were found to understand the perspectives and expectations of nurses in these aspects. However, they may still provide some insights into the discrepancies and barriers. While nurses in studies by Aldez et al. (2017) and Garcia, Whitehead, & Winter. (2015), recognised the benefits of having mental and spiritual support, efficient care, reduced knowledge gaps and promotion of rest, two recurring barriers were cited across several studies. Firstly, many nurses in those studies cited that the lack of time, inadequate knowledge, increased work demands heavily impacted their abilities to provide patients with the care that they require. In addition, some nurses may also rely more on fellow allied health professionals, perceiving that they should be the primary resource for providing patients with the needed education and support. Secondly, nurses may struggle with being proactive and initiating conversations with patients about their needs as they assume that patients are also responsible for advocating for themselves and speaking up when they require support.

These conclusions gathered from the discussion of patients and nurses provided a complete overview of the different priorities and perspectives that both sides have with regards to person-centred and equitable care cancer care. However, these differences could greatly impact the quality of care delivered, which could ultimately be detrimental to the goal of person-centred and equitable care. Therefore, the last research question will further discuss and analyse similarities and differences between patients and nurses.

7.4 How do Haematology, and Oncology registered nurses perceive patient's perception and expectations of person-centred and equitable cancer nursing care?

This final research question aims to further analyse and discuss similarities and gaps between the perception and expectations of patients and registered nurses. Gaps highlighted would not only be helpful in informing future policies, but also interventions that could help bridge the gaps to obtain more streamlined and quality cancer care. This research question involves the integration and comparison of findings from both data sets and will be discussed according to patients' perceived priorities in cancer care.

When comparing what patients and nurses perceive to be of highest priorities and expectations in person-centred and equitable cancer care, both sides have mostly similar preferences, except for engaging whānau and psychosocial support. Patients considered whānau and psychosocial support as one of the most important aspects of cancer care, however some inconsistencies and disagreements were noted from the perspective of nurses. This implies that while the main priorities of nurses are mostly aligned with patients, they may not fully understand or grasp the significance that whānau and psychosocial support has for patients. On the contrary, nurses perceived it was more important to be able to assess and refer patients to allied health professionals for support, than compared to facilitating whānau and psychosocial support for patients. Holistic care, including supporting rest, mental and spiritual well-being, as well as minimising language barrier were the next most important aspects of cancer care to patients. However, this is vastly different to what nurses perceived as important, as language barrier was the only aspect that nurses saw equivalent significance in. Additionally, substantial inconsistencies and varied levels of agreement were identified amongst nurses for holistic care, promotion of rest as well as mental and spiritual well-being. The considerable number of discrepancies between the perspective of patients and nurses suggests that there is a significant lack of awareness amongst nurses in relation to the needs of patients. Lastly, patient engagement, knowledge gaps and efficiency were deemed to be of lower priorities based on the perspectives of patients. Whereas for nurses, mental and spiritual support, efficiency, knowledge gaps, as well as promotion of rest were of the least importance to nurses. Once again, the difference in perspectives emphasises that as a whole, nurses have limited awareness and knowledge of what patients truly value in person-centred and equitable cancer nursing care. This also further suggests while the main priorities such as having a safe, approachable, professional, and supportive environment, promoting independence as well as nutritional support are being addressed, the other needs of patients may not be met in a timely manner or could go entirely unmet.

Part 2: Aligning perspectives and expectations of person-centred and equitable nursing care

Equitable and person-centred cancer care is the ideal and "gold standard" level of care that Health New Zealand - Te Whatu Ora aims to achieve for cancer patients and services. It ensures that patients' unique needs are met, which results in optimal health outcomes and therefore reduced burden on individuals and the health system. While efforts have been put in place by the health system to encourage equitable and person-centred care, the presence of multi-faceted barriers prevent nurses and patients from providing and receiving equitable and person-centred care respectively. One such prominent barrier is the lack of cultural competency and the misalignment in perspectives and expectations between nurses and patients, as evident in the discussion above and in studies by Chin et al. (2018) and Kanengoni-Nyatara et al. (2024). These mismatched perspectives and expectations not only impact the patient nurse relationship, but they also lead to unmet needs and potentially poorer health outcomes. Therefore, this highlights the significance of needing and having cancer services that seek to understand and align the perspectives and expectations of nurses and patients within their care. Through the exploration and findings of this study, deeper insights were obtained into the similarities and disparities between the perspectives and expectations of nurses and patients, which can be utilised to bridge the gaps and create more awareness. In order to achieve this, implementation of interventions and strategies would be beneficial to facilitate and provide a guide on how to address these barriers and disparities. Coulter & Oldham. (2016) proposed that interventions and strategies should aim to improve cancer care at multiple levels within the healthcare system, including the policy, educational and clinical sectors. By addressing equitable and person-centred care at different levels, it would ensure consistency and sustainability by reducing fragmentation within the sectors. In addition, strategies and recommendations should also not only seek to align perspective and expectations between nurses and patients, but also to prevent and minimise possible future disparities between them that could arise. Therefore, potential implications and recommendations on policies, clinical and educational practice will be further discussed later in this chapter.

Part 3: Limitations, conclusions, and implications

7.5 Study limitations

Study limitations refers to flaws in a research design that may impact the accuracy and reliability and generalisability of a study, which is also known as validity. Ross and Bibler Zaidi (2019), highlighted that all researchers are obliged to include a clear presentation of limitations in their study, as it assures transparency for both the researcher and participants, and is also part of an ethical requirement. Since validity consists of both internal and external validity, this section of the research is organised around the discussion of internal and external limitations that affect internal and external validity respectively. Limitations will be evaluated based on study designs, data collection, data analysis and findings. In the following sections, possible limitations, implications to the study, and probable alternative methods as well as any strategies that were used to reduce limitations will also be provided as suggested by Ross and Bibler Zaidi (2019).

7.5.1 Internal limitations

Internal limitations refer to flaws in the research that may impact the reliability and accuracy of the study's findings (Ross & Bibler Zaidi, 2019). This includes sample size, selection bias, data collection instruments, interviewer bias, interpretation bias, response bias as well as reporting bias. Firstly, sample sizes in this study were small, and hence may not be the most accurate representative of the studied population (Ahmed, 2024). This was largely due to time constraints of the research and the sampling strategies put in place. In qualitative phase one, purposeful sampling as well as inclusion and exclusion criteria were incorporated to ensure that patients identified were medically well enough to participate and were admitted for at least a week to optimise the collection of rich data. However due to this, none of the patients who were of Asian and Pacific Islander background could be included in the study, as they were all admitted for less than a week. In attempts to address this, the researcher looked for evidence of recent past admissions into the ward, but unfortunately all the Asian and Pacific Islander patients at that point were either previously treated in the outpatient department or were newly diagnosed. While no new themes were discovered after the analysis of the interviews with the six successfully recruited patients, these six patients only consisted of NZ European and Māori patients. Therefore, it would be difficult to ascertain if true data saturation was attained due to the lack of cultural representation in the qualitative sample in relation to NZ's demographics (Rahimi & Khatooni, 2024).

Contrastingly, there were more than one patient who qualified for the NZ European and Māori above 65 years old categories. While these patients were arranged and selected according to their nursing needs based on Trendcare, the Trendcare assessment was subjective based on what the patient's primary nurse has indicated which could have potentially led to a selection bias. Therefore, to address this, the researcher conducted an independent assessment of Trendcare based on the patients' clinical notes. The interview and survey questions were not formally validated or accredited, which could have affected and limited the scope and depth of findings captured. However, the researcher utilised a well-respected and established health model such as Te Whare Tapa Whā to develop the interview and survey questions. As a result of resource constraints, the interviews and subsequent thematic analysis were also solely conducted by the researcher, which could bring about interviewer and interpretation bias especially since the researcher was also a Nurse Educator in the same department. In addition, the researcher is also of Asian cultural background and may not have been able to accurately capture and analyse data in a way that would best represent patients of other cultural backgrounds. This could lead to patient responses and analysis that is influenced by the perception and role of the researcher, thus leading to inauthentic and inaccurate findings. In order to minimise biases, the researcher utilised pre-developed structured questions and practiced reflexivity, thereby being self-aware and intentional when conducting interviews and analysis. Stricter member checking could have also been put in place by sending transcripts, analysis, and findings to patients for confirmation. However not all patients wanted to be contacted and due to time constraints, results of the study could only be sent at the end of the study.

In the quantitative phase, sample size also plays a significant role in determining the accuracy and validity of the findings. Out of 53 surveys that were sent out, only 15 participants responded, which highlights potential response and non-response biases. Firstly, the small response number may not adequately represent all the registered nurses in the Haematology and Oncology ward, as valuable information may not have been fully captured due to non-response. Secondly, registered nurses who responded and agreed to participate could potentially be nurses who are usually more engaged with contributing and improving cancer nursing care. This therefore results in statistically unreliable data (Cao et al., 2024). To minimise biases, the survey was developed in a way that would reduce as much variability and confounding factors as possible. Pilot tests were also done with the researcher's supervisors to ensure that the online survey instruments were functioning as intended to. Descriptive analysis was also utilised to optimise the accuracy of data analysis. On top of that, appropriate measurements were used to analyse the quantitative data depending on whether the results were skewed due to the sample size. Lastly since the study was conducted by a sole researcher, there is also a higher risk of reporting bias where some data could have been left out due to potential blind spots, confirmation bias and selective interpretation. Therefore, informal peer review and supervision was undertaken by the researcher with at least one supervisor. Some reporting guidelines such as the adapted PRISMA diagram were also used to clearly illustrate literature search.

7.5.2 External limitations

External limitations refer to flaws in a research study that could impact the generalisability of results to larger or similar populations with respect to context, setting, participants, and time (Ross & Bibler Zaidi, 2019). Majority of the external limitations in this study is also linked to the impacts of internal limitations mentioned previously. This includes participants, sample size, diversity, and geographical constraints. Firstly, this study was conducted in an inpatient Haematology and Oncology ward within an urban hospital, and therefore may not be generalisable and transferable to other specialties, communities, as well as outpatient or rural settings within NZ or internationally. Secondly, the small sample sizes for both qualitative and quantitative also limits the generalisability and transferability of findings to the wider population of Haematology and Oncology patients and registered nurses in NZ. While the findings have provided valuable insight, it may not have captured the full diversity of perspectives and expectations especially since there is also a lack of sufficient cultural diversity amongst patients.

7.6 Conclusions

To summarise, person-centred and equitable cancer care is the gold standard of care that NZ is aiming to work towards. It holds significance within cancer care as it not only ensures that patients' needs are met through individualised care, but also optimises and enhances health outcomes for all cancer patients. This in turn reduces morbidity and mortality rates associated with cancer, which ultimately leads to the reduction in burden on individuals and the healthcare system. This is especially crucial and relevant in view of expected increase in cancer prevalence as well as diversity amongst patient and nursing populations, which could lead to more inequities and disparities in health outcomes if not addressed. While a diverse nursing population may prove to be beneficial in meeting the needs of a culturally diverse patient population, barriers such as cultural incompetence and lack of awareness on health disparities could impede the delivery of person-centred and equitable nursing care. Since the perspectives and expectations of nurses and patients on cancer care have been shown to influence these barriers, this research strived to explore the perspectives and expectations of cancer nurses and patients within an acute in-patient Haematology and Oncology ward within Health New Zealand (Te Whatu Ora) Waikato. Through the guidance of the pragmatic research paradigm and phenomenological approach, an exploratory mixed method research was implemented, which involved the use of semi-structured interviews and anonymous online surveys to collect qualitative and quantitative data from registered nurses and patients respectively. Based on the thematic analysis of the interviews, descriptive statistics of the surveys, and discussions from the findings, it was apparent that the perspectives and expectations between nurses and patients were concerningly misaligned. Therefore, this suggests that cancer services should aim to address this by focusing on aligning the perspectives and expectations of nurses and patients, building stronger nurse-patient relationships and minimise potential barriers to person-centred and equitable cancer nursing care. through strategies implemented at a policy, educational and clinical level.

7.7 Policy implications and recommendations

Findings from this study suggests that policies in cancer services should focus on ensuring that there are consistent trainings, ongoing support, and continual professional development for nurses with regards to the incorporation and application of health models that advocate for person-centred and equitable cancer care. This ensures that strategies suggested are not only based on findings from this study but are also evidenced based and widely recognised. An already existing model is the Te Whare

Tapa Whā (Durie, 1984), in which patient interviews and staff surveys in this study were developed from. While nurses are aware of this model and its four main pillars that make up an individual's wellbeing, many of them are unsure on how to effectively apply it into their practice in order to provide person-centred and equitable care as mentioned earlier in this study. Therefore, mandatory trainings, ongoing support, and continual professional development with regards to holistic health models could support nurses in addressing barriers to person-centred and equitable care that were identified in this study, such as whānau engagement, ongoing assessments, and timely access to support, knowledge gaps and cultural competence. On top of that, more focus on cultural competence training would also be beneficial as part of nurses ongoing and professional development, to equip them with the knowledge and skills to provide care for patients of diverse cultural background. Utilising or improving already existing models and trainings provides a more simplistic and resource mindful solution at the policy level.

However, given the persistent knowledge gap and lack of confidence in applying the existing health models, a complementary nursing frameworks could be considered as well alongside the Te Whare Tapa Whā health model to provide a clearer and more structured manner. An example of a relevant nursing framework is the Swanson-Kauffman's middle-range theory of caring (Grobbel et al., 2015). The framework revolves around five main core processes namely, 'Knowing', 'Being with', 'Doing for', 'Enabling' and 'Maintaining belief'. Firstly, 'Knowing' refers to nurses striving to understand the unique experiences, perceptions and needs of patients under their care. Secondly, 'Being with' highlights the need for nurses to be present with patients physically, mentally, emotionally, and spiritually, offering support when required. Thirdly, 'Doing for' involves nurses taking initiative and interventions to meet patients' needs. Fourthly, 'Enabling' involves encouraging and empowering patients to participate in decision making, maintaining independence and self-advocacy. Lastly, 'Maintaining belief' involves nurses supporting patients to foster hope and resilience especially during challenging moments. The Swanson- Kauffman's middle-range theory of caring not only addresses several aspects of person-centred and equitable care that patients perceived as crucial in the interviews. Studies have also shown that it has made a significant positive impact on patients' and nurses' satisfaction. Its integration into current relevant guidelines, protocols and tools could potentially help support nurses in the application of holistic health models, thereby reducing disparities and increasing alignment in perception between patients and nurses. However, the researcher also acknowledges that any implementation of new framework would involve change on a large scale that would incur significant time, cost, and resources.

7.8 Educational implications and recommendations

Nursing education plays a major role in keeping nurses up to date on current research findings and practice updates. In order for nurses to provide person-centred and equitable care, they would need to understand the perspectives of patients, barriers to person-centred and equitable care, as well as strategies they can apply in clinical practice. Without education, policies would not be effectively disseminated into clinical areas as well. Education can be achieved through existing and ongoing educational programmes, trainings study days, workshops, or in-services as mentioned earlier. Firstly, these trainings should be focused on demonstrating to nurses the importance of providing person-centred and equitable cancer care. Instead of disease and clinical skill focused trainings, education could also place more emphasis in demonstrating patients' cancer journeys. This could provide more insights to the barriers and challenges that patients face that could impact their health outcomes apart from treatment related adverse effects. In addition, these training could also be tailored to portray the findings from this research, in order to give nurses an overview of current perspectives, expectations, and barriers, as well as to support them in making more well-informed nursing care plans and decisions that meet patients' needs. In line with policy implications, it would be valuable for ongoing nursing education and support to include teachings on how to apply holistic health models like Te Whare Tapa Whā in practice. Training would also further support nurse if they included strategies and available resources that nurses can access to help them communicate, engage, and provide educational resources to patients of diverse background in an effective and culturally safe manner.

7.9 Clinical implications and recommendations

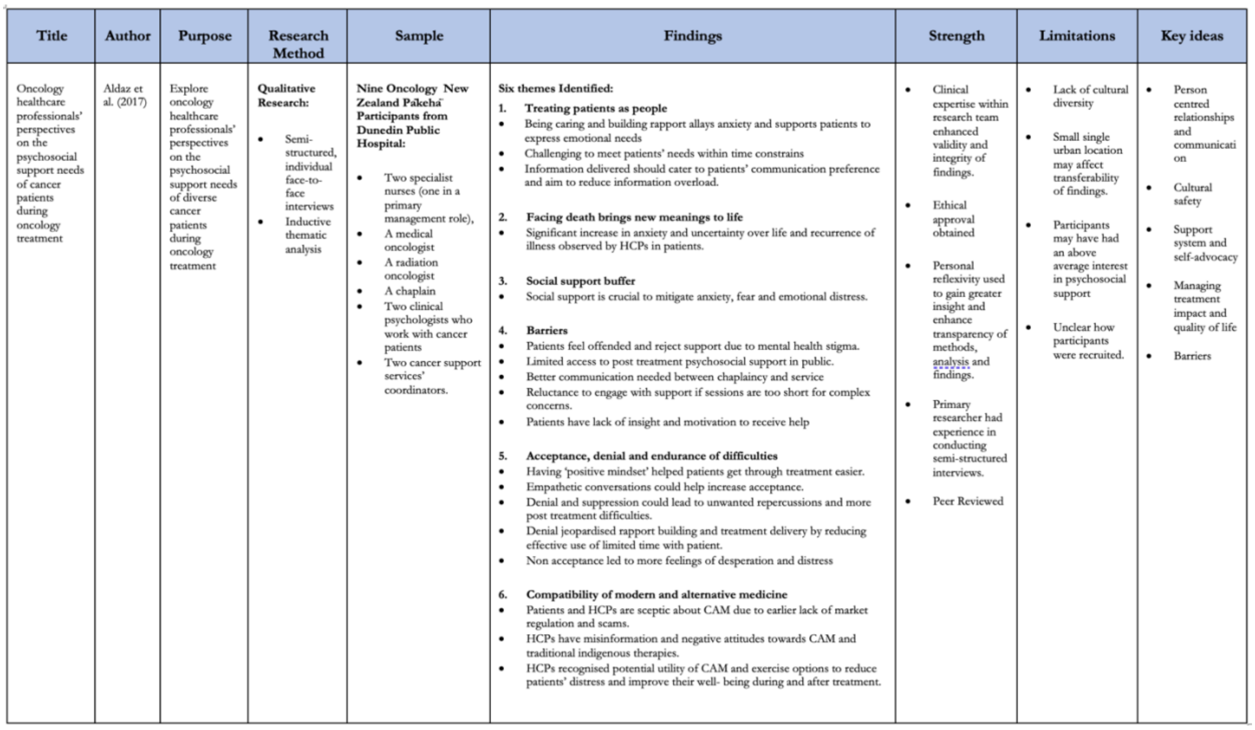
With educational support and guidelines in place, nurses should be more confident in providing person-centred and equitable care by assessing, recognising, and responding appropriately to patients' perspectives and expectations, as well as identifying barriers and challenges that patients face. However, since barriers such as high workload and a perceived lack of time is still a significant barrier for nurses with regards to providing person-centred and equitable care, clinical support would be vital and beneficial ensuring that nurses are well supported to provide the care patients need. This could include methods that would maximise time spent with patients, such as ensuring appropriate patient to staff ratio, assigning championship roles to nurses who are keen to be advocates on the ground, ensuring that educational resources are readily available for both nurses and patients or potentially developing admission packs that includes relevant and culturally information that patient can access. These packs could provide information to patients on available support resources, self-advocacy, patient autonomy and independence, mental health support, as well as treatment plan and side effects. Further information could also be provided to inform patients on ward schedules and what they can expect from their primary nurses, so as to align expectations.

8.0 Future research

This study aimed to explore the perspectives and expectations of haematology and oncology nurses and patients. Qualitative interviews were used to gain insights into the perspectives and expectations of patients. However quantitative surveys were used for registered nurses, which would have impacted the depth of insights gathered. Therefore, more nursing focused qualitative research should be conducted so as to obtain deeper insights into their perspectives, expectations, and barriers to providing person-centred and equitable cancer care. Additionally, since this study was only conducted in Health New Zealand (Te Whatu Ora) Waikato and may not be generalisable to other regions of NZ, further studies could be done to explore the perspectives and expectations of patients and nurses from different regions or settings. Since the perspectives and expectations of nurses and patients are greatly influenced by a multitude of different factors such as age, gender, socioeconomic status and cultural background, nursing experience and cultural diversity, more in-depth research could be done to explore, compare and contrast similarities and differences in perspectives and expectations of patients and nurses within each factor. Future research should also be conducted using a validated research tool that is able to consistently facilitate the study of patients and nurses' perspectives and expectations but would also be generalisable to different cancer service areas. An example is the Person-Centred Care Assessment Tool (P-CAT). With the possibility of more future studies, paired with research-informed interventions and implementations, more opportunities would be available address barriers and achieve the aim of providing person-centred and equitable cancer care in NZ.

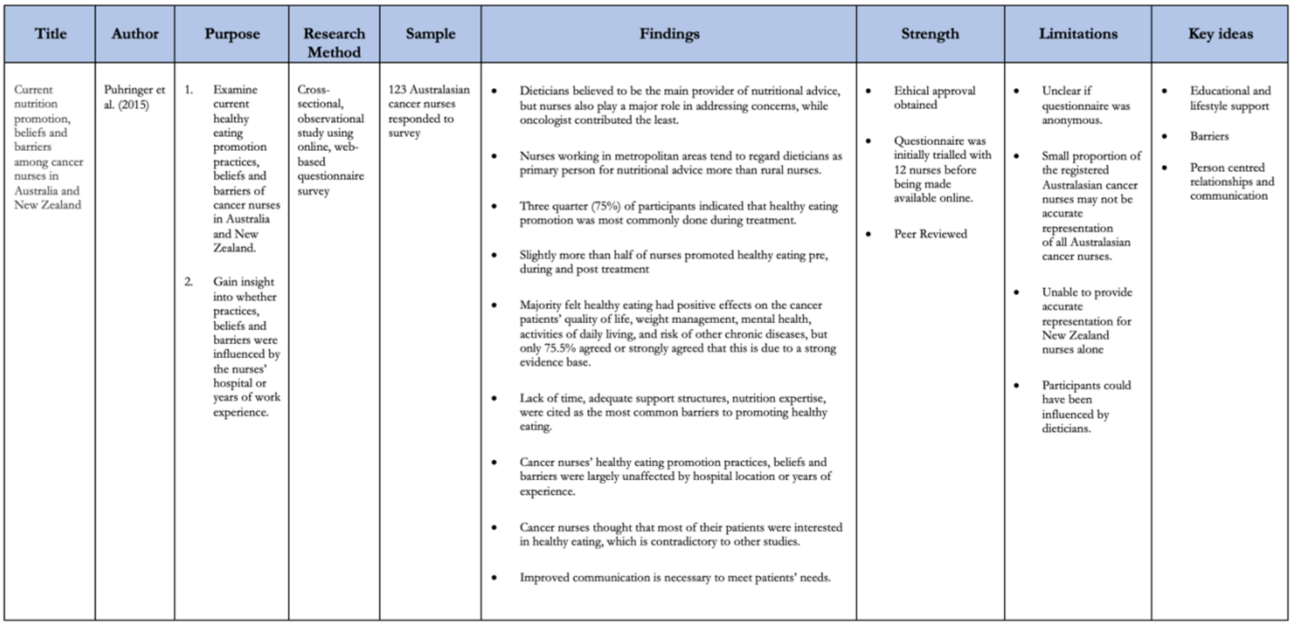
Appendices

Appendix 1: Oncology healthcare professionals' perspectives on the psychosocial support needs of cancer patients during oncology treatment (Aldez et al. 2017)



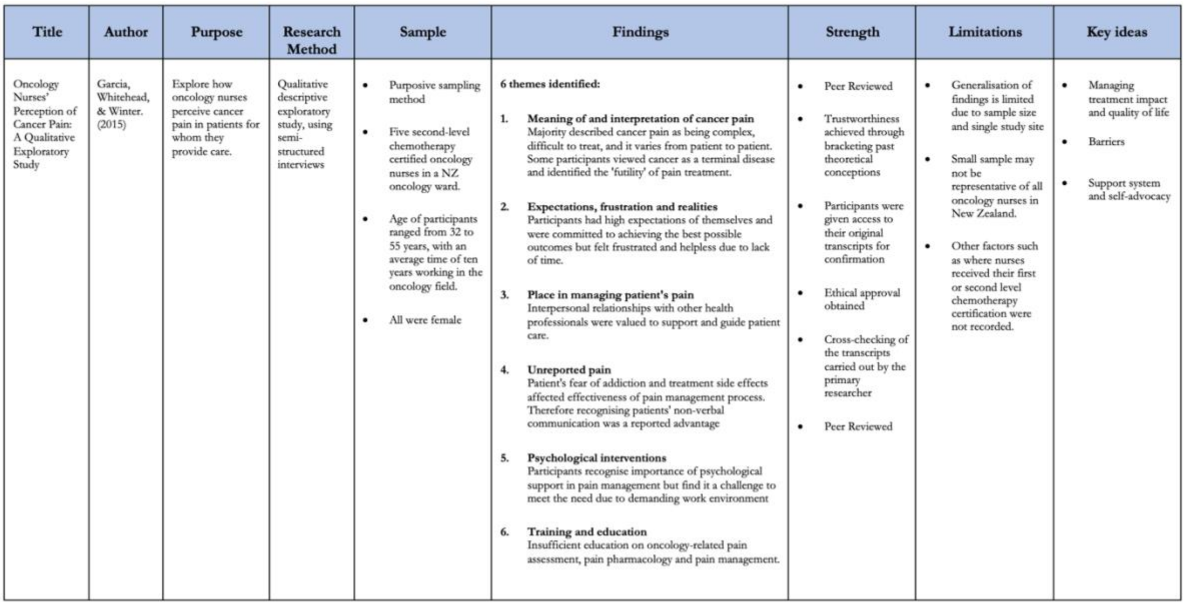
Title	Author	Purpose	Research Method	Sample	Findings	Strength	Limitations	Key ideas
Oncology healthcare professionals' perspectives on the psychosocial support needs of cancer patients during oncology treatment	Aldaz et al. (2017)	Explore oncology healthcare professionals' perspectives on the psychosocial support needs of diverse cancer patients during oncology treatment	**Qualitative Research:** • Semi-structured, individual face-to-face interviews • Inductive thematic analysis	**Nine Oncology New Zealand Pākehā Participants from Dunedin Public Hospital:** • Two specialist nurses (one in a primary management role), • A medical oncologist • A radiation oncologist • A chaplain • Two clinical psychologists who work with cancer patients • Two cancer support services' coordinators.	**Six themes Identified:** **1. Treating patients as people** • Being caring and building rapport allays anxiety and supports patients to express emotional needs • Challenging to meet patients' needs within time constrains • Information delivered should cater to patients' communication preference and aim to reduce information overload. **2. Facing death brings new meanings to life** • Significant increase in anxiety and uncertainty over life and recurrence of illness observed by HCPs in patients. **3. Social support buffer** • Social support is crucial to mitigate anxiety, fear and emotional distress. **4. Barriers** • Patients feel offended and reject support due to mental health stigma. • Limited access to post treatment psychosocial support in public. • Better communication needed between chaplaincy and service • Reluctance to engage with support if sessions are too short for complex concerns. • Patients have lack of insight and motivation to receive help **5. Acceptance, denial and endurance of difficulties** • Having 'positive mindset' helped patients get through treatment easier. • Empathetic conversations could help increase acceptance. • Denial and suppression could lead to unwanted repercussions and more post treatment difficulties. • Denial jeopardised rapport building and treatment delivery by reducing effective use of limited time with patient. • Non acceptance led to more feelings of desperation and distress **6. Compatibility of modern and alternative medicine** • Patients and HCPs are sceptic about CAM due to earlier lack of market regulation and scams. • HCPs have misinformation and negative attitudes towards CAM and traditional indigenous therapies. • HCPs recognised potential utility of CAM and exercise options to reduce patients' distress and improve their well- being during and after treatment.	• Clinical expertise within research team enhanced validity and integrity of findings. • Ethical approval obtained • Personal reflexivity used to gain greater insight and enhance transparency of methods, analysis and findings. • Primary researcher had experience in conducting semi-structured interviews. • Peer Reviewed	• Lack of cultural diversity • Small single urban location may affect transferability of findings. • Participants may have had an above average interest in psychosocial support • Unclear how participants were recruited.	• Person centred relationships and communication • Cultural safety • Support system and self-advocacy • Managing treatment impact and quality of life • Barriers

Appendix 2: **Current nutrition promotion, beliefs, and barriers among cancer nurses in Australia and New Zealand (Puhringer et al., 2015)**



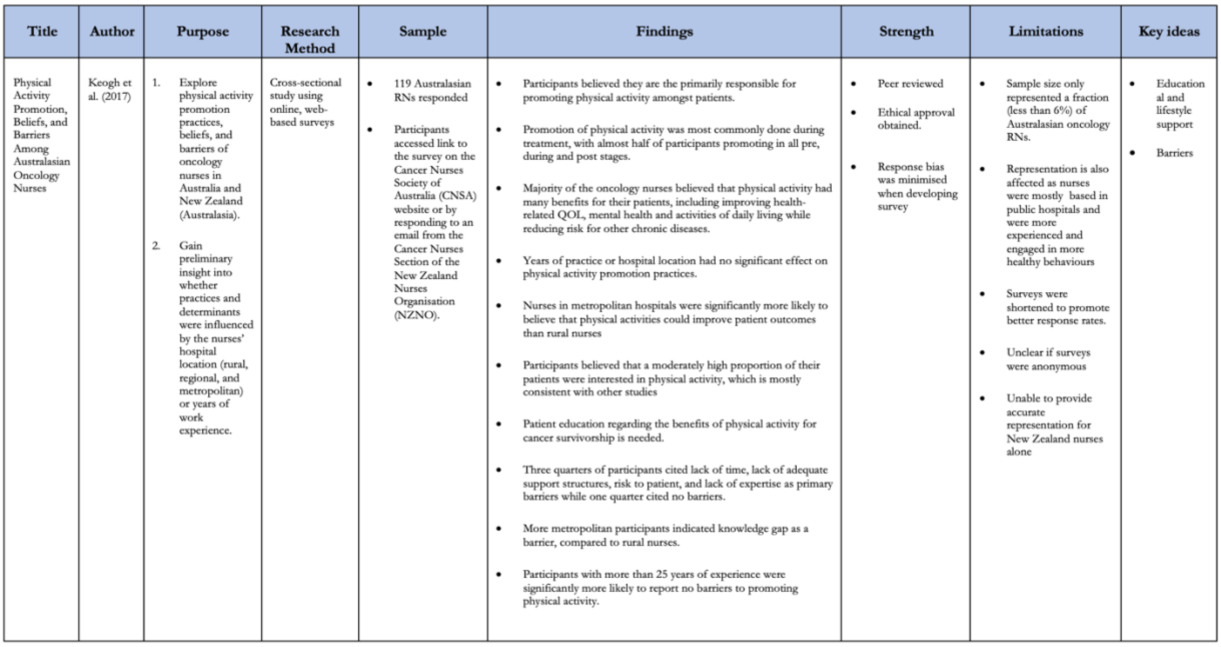
Title	Author	Purpose	Research Method	Sample	Findings	Strength	Limitations	Key ideas
Current nutrition promotion, beliefs and barriers among cancer nurses in Australia and New Zealand	Puhringer et al. (2015)	1. Examine current healthy eating promotion practices, beliefs and barriers of cancer nurses in Australia and New Zealand. 2. Gain insight into whether practices, beliefs and barriers were influenced by the nurses' hospital or years of work experience.	Cross-sectional, observational study using online, web-based questionnaire survey	123 Australasian cancer nurses responded to survey	• Dieticians believed to be the main provider of nutritional advice, but nurses also play a major role in addressing concerns, while oncologist contributed the least. • Nurses working in metropolitan areas tend to regard dieticians as primary person for nutritional advice more than rural nurses. • Three quarter (75%) of participants indicated that healthy eating promotion was most commonly done during treatment. • Slightly more than half of nurses promoted healthy eating pre, during and post treatment • Majority felt healthy eating had positive effects on the cancer patients' quality of life, weight management, mental health, activities of daily living, and risk of other chronic diseases, but only 75.5% agreed or strongly agreed that this is due to a strong evidence base. • Lack of time, adequate support structures, nutrition expertise, were cited as the most common barriers to promoting healthy eating. • Cancer nurses' healthy eating promotion practices, beliefs and barriers were largely unaffected by hospital location or years of experience. • Cancer nurses thought that most of their patients were interested in healthy eating, which is contradictory to other studies. • Improved communication is necessary to meet patients' needs.	• Ethical approval obtained • Questionnaire was initially trialled with 12 nurses before being made available online. • Peer Reviewed	• Unclear if questionnaire was anonymous. • Small proportion of the registered Australasian cancer nurses may not be accurate representation of all Australasian cancer nurses. • Unable to provide accurate representation for New Zealand nurses alone • Participants could have been influenced by dieticians.	• Educational and lifestyle support • Barriers • Person centred relationships and communication

Appendix 3: Oncology Nurses' Perception of Cancer Pain: A Qualitative Exploratory Study (Garcia, Whitehead, & Winter. 2015)



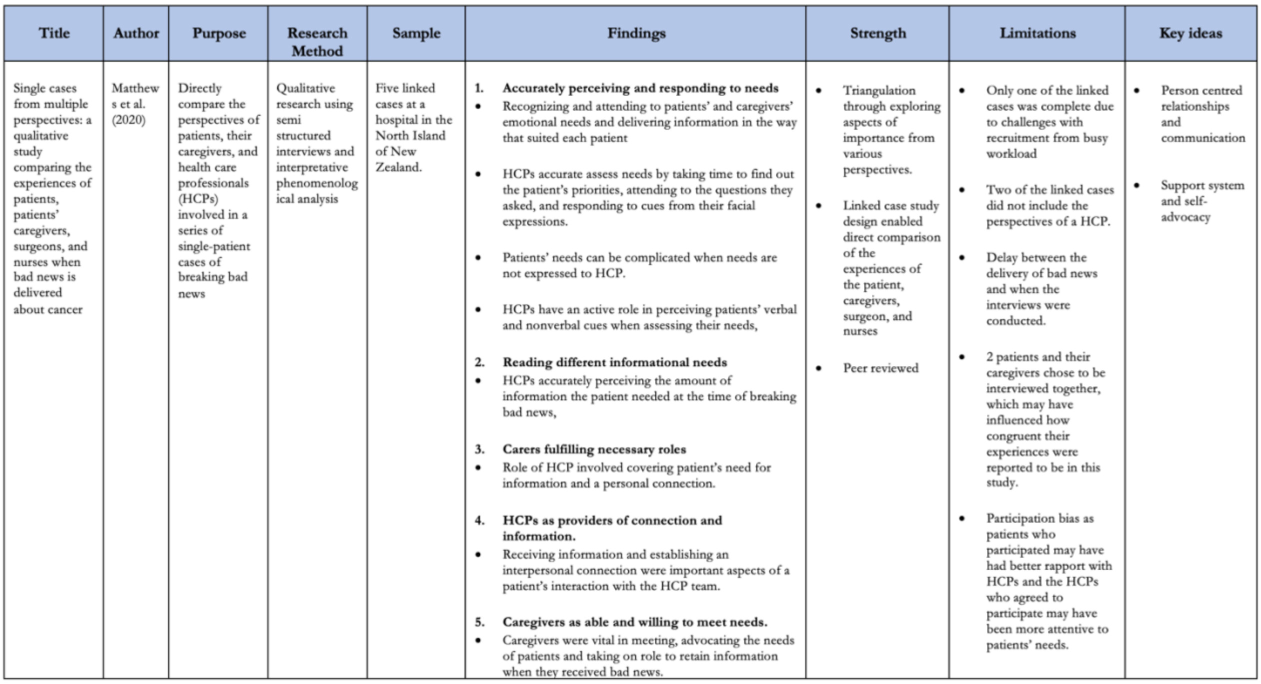
Title	Author	Purpose	Research Method	Sample	Findings	Strength	Limitations	Key ideas
Oncology Nurses' Perception of Cancer Pain: A Qualitative Exploratory Study	Garcia, Whitehead, & Winter. (2015)	Explore how oncology nurses perceive cancer pain in patients for whom they provide care.	Qualitative descriptive exploratory study, using semi-structured interviews	• Purposive sampling method • Five second-level chemotherapy certified oncology nurses in a NZ oncology ward. • Age of participants ranged from 32 to 55 years, with an average time of ten years working in the oncology field. • All were female	**6 themes identified:** 1. **Meaning of and interpretation of cancer pain** Majority described cancer pain as being complex, difficult to treat, and it varies from patient to patient. Some participants viewed cancer as a terminal disease and identified the 'futility' of pain treatment. 2. **Expectations, frustration and realities** Participants had high expectations of themselves and were committed to achieving the best possible outcomes but felt frustrated and helpless due to lack of time. 3. **Place in managing patient's pain** Interpersonal relationships with other health professionals were valued to support and guide patient care. 4. **Unreported pain** Patient's fear of addiction and treatment side effects affected effectiveness of pain management process. Therefore recognising patients' non-verbal communication was a reported advantage 5. **Psychological interventions** Participants recognise importance of psychological support in pain management but find it a challenge to meet the need due to demanding work environment 6. **Training and education** Insufficient education on oncology-related pain assessment, pain pharmacology and pain management.	• Peer Reviewed • Trustworthiness achieved through bracketing past theoretical conceptions • Participants were given access to their original transcripts for confirmation • Ethical approval obtained • Cross-checking of the transcripts carried out by the primary researcher • Peer Reviewed	• Generalisation of findings is limited due to sample size and single study site • Small sample may not be representative of all oncology nurses in New Zealand. • Other factors such as where nurses received their first or second level chemotherapy certification were not recorded.	• Managing treatment impact and quality of life • Barriers • Support system and self-advocacy

Appendix 4: Physical Activity Promotion, Beliefs, and Barriers Among Australasian Oncology Nurses (Keogh et al., 2017)



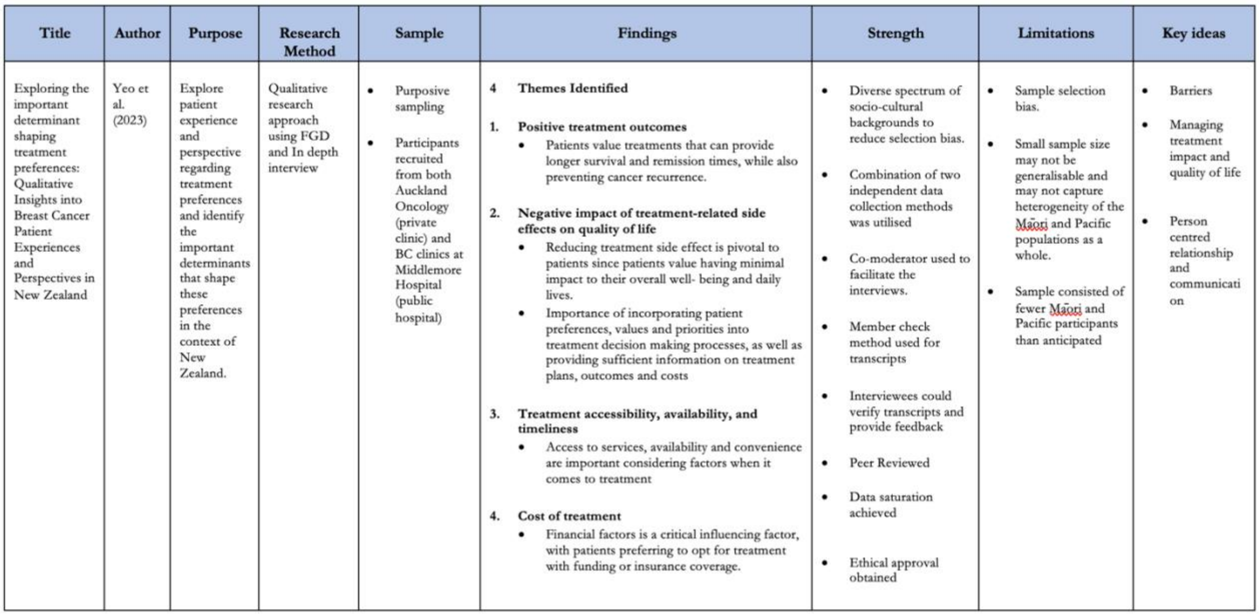
Title	Author	Purpose	Research Method	Sample	Findings	Strength	Limitations	Key ideas
Physical Activity Promotion, Beliefs, and Barriers Among Australasian Oncology Nurses	Keogh et al. (2017)	1. Explore physical activity promotion practices, beliefs, and barriers of oncology nurses in Australia and New Zealand (Australasia). 2. Gain preliminary insight into whether practices and determinants were influenced by the nurses' hospital location (rural, regional, and metropolitan) or years of work experience.	Cross-sectional study using online, web-based surveys	• 119 Australasian RNs responded • Participants accessed link to the survey on the Cancer Nurses Society of Australia (CNSA) website or by responding to an email from the Cancer Nurses Section of the New Zealand Nurses Organisation (NZNO).	• Participants believed they are the primarily responsible for promoting physical activity amongst patients. • Promotion of physical activity was most commonly done during treatment, with almost half of participants promoting in all pre, during and post stages. • Majority of the oncology nurses believed that physical activity had many benefits for their patients, including improving health-related QOL, mental health and activities of daily living while reducing risk for other chronic diseases. • Years of practice or hospital location had no significant effect on physical activity promotion practices. • Nurses in metropolitan hospitals were significantly more likely to believe that physical activities could improve patient outcomes than rural nurses • Participants believed that a moderately high proportion of their patients were interested in physical activity, which is mostly consistent with other studies • Patient education regarding the benefits of physical activity for cancer survivorship is needed. • Three quarters of participants cited lack of time, lack of adequate support structures, risk to patient, and lack of expertise as primary barriers while one quarter cited no barriers. • More metropolitan participants indicated knowledge gap as a barrier, compared to rural nurses. • Participants with more than 25 years of experience were significantly more likely to report no barriers to promoting physical activity.	• Peer reviewed • Ethical approval obtained. • Response bias was minimised when developing survey	• Sample size only represented a fraction (less than 6%) of Australasian oncology RNs. • Representation is also affected as nurses were mostly based in public hospitals and were more experienced and engaged in more healthy behaviours • Surveys were shortened to promote better response rates. • Unclear if surveys were anonymous • Unable to provide accurate representation for New Zealand nurses alone	• Educational and lifestyle support • Barriers

Appendix 5: Single cases from multiple perspectives: a qualitative study comparing the experiences of patients, patients' caregivers, surgeons, and nurses when bad news is delivered about cancer (Matthews et al., 2020)



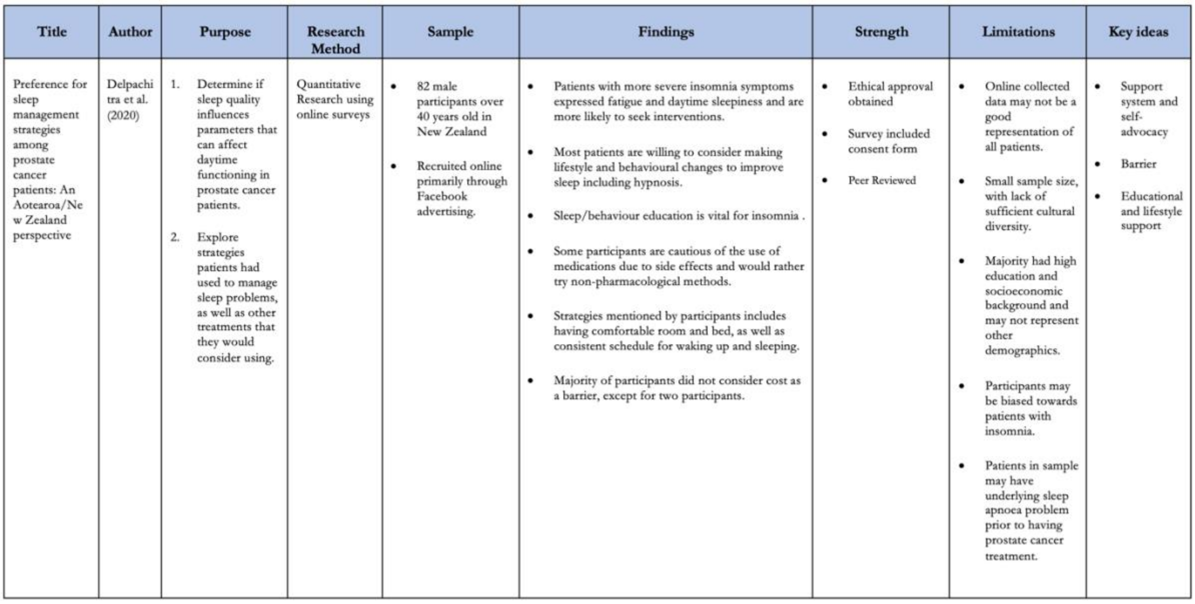
Title	Author	Purpose	Research Method	Sample	Findings	Strength	Limitations	Key ideas
Single cases from multiple perspectives: a qualitative study comparing the experiences of patients, patients' caregivers, surgeons, and nurses when bad news is delivered about cancer	Matthews et al. (2020)	Directly compare the perspectives of patients, their caregivers, and health care professionals (HCPs) involved in a series of single-patient cases of breaking bad news	Qualitative research using semi structured interviews and interpretative phenomenological analysis	Five linked cases at a hospital in the North Island of New Zealand.	1. **Accurately perceiving and responding to needs** • Recognizing and attending to patients' and caregivers' emotional needs and delivering information in the way that suited each patient • HCPs accurate assess needs by taking time to find out the patient's priorities, attending to the questions they asked, and responding to cues from their facial expressions. • Patients' needs can be complicated when needs are not expressed to HCP. • HCPs have an active role in perceiving patients' verbal and nonverbal cues when assessing their needs, 2. **Reading different informational needs** • HCPs accurately perceiving the amount of information the patient needed at the time of breaking bad news, 3. **Carers fulfilling necessary roles** • Role of HCP involved covering patient's need for information and a personal connection. 4. **HCPs as providers of connection and information.** • Receiving information and establishing an interpersonal connection were important aspects of a patient's interaction with the HCP team. 5. **Caregivers as able and willing to meet needs.** • Caregivers were vital in meeting, advocating the needs of patients and taking on role to retain information when they received bad news.	• Triangulation through exploring aspects of importance from various perspectives. • Linked case study design enabled direct comparison of the experiences of the patient, caregivers, surgeon, and nurses • Peer reviewed	• Only one of the linked cases was complete due to challenges with recruitment from busy workload • Two of the linked cases did not include the perspectives of a HCP. • Delay between the delivery of bad news and when the interviews were conducted. • 2 patients and their caregivers chose to be interviewed together, which may have influenced how congruent their experiences were reported to be in this study. • Participation bias as patients who participated may have had better rapport with HCPs and the HCPs who agreed to participate may have been more attentive to patients' needs.	• Person centred relationships and communication • Support system and self-advocacy

Appendix 6: Exploring the important determinant shaping treatment preferences: Qualitative Insights into Breast Cancer Patient Experiences and Perspectives in New Zealand (Yeo et al., 2023)



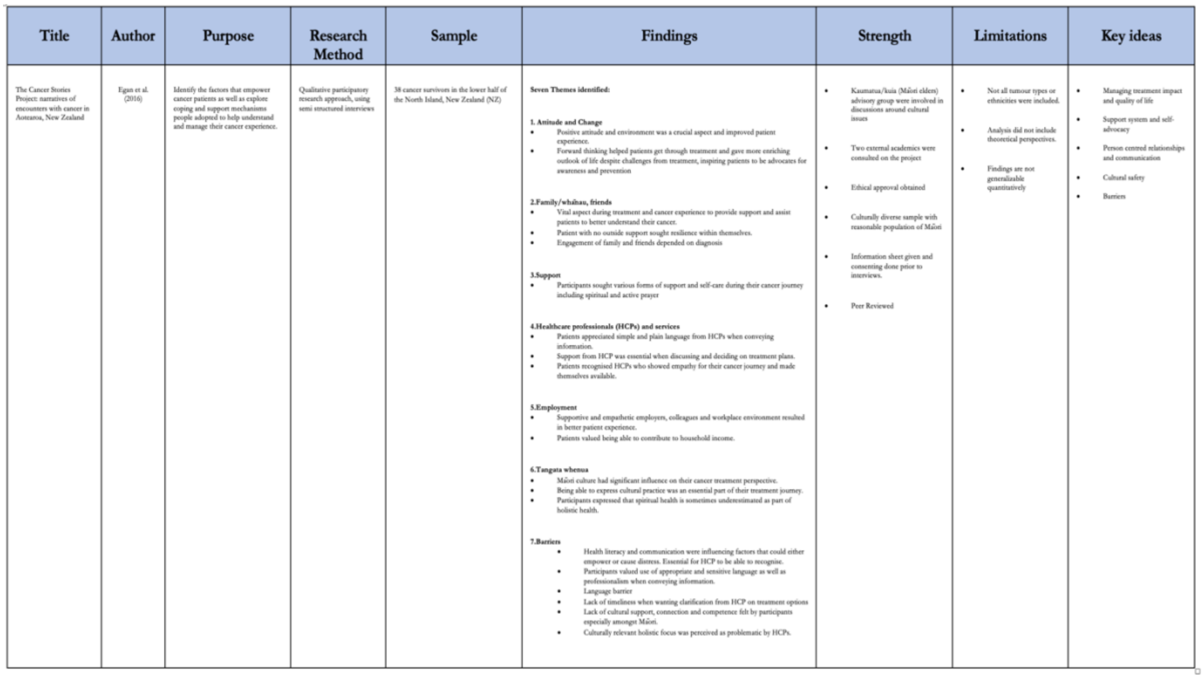
Title	Author	Purpose	Research Method	Sample	Findings	Strength	Limitations	Key ideas
Exploring the important determinant shaping treatment preferences: Qualitative Insights into Breast Cancer Patient Experiences and Perspectives in New Zealand	Yeo et al. (2023)	Explore patient experience and perspective regarding treatment preferences and identify the important determinants that shape these preferences in the context of New Zealand.	Qualitative research approach using FGD and In depth interview	• Purposive sampling • Participants recruited from both Auckland Oncology (private clinic) and BC clinics at Middlemore Hospital (public hospital)	4 **Themes Identified** 1. **Positive treatment outcomes** • Patients value treatments that can provide longer survival and remission times, while also preventing cancer recurrence. 2. **Negative impact of treatment-related side effects on quality of life** • Reducing treatment side effect is pivotal to patients since patients value having minimal impact to their overall well- being and daily lives. • Importance of incorporating patient preferences, values and priorities into treatment decision making processes, as well as providing sufficient information on treatment plans, outcomes and costs 3. **Treatment accessibility, availability, and timeliness** • Access to services, availability and convenience are important considering factors when it comes to treatment 4. **Cost of treatment** • Financial factors is a critical influencing factor, with patients preferring to opt for treatment with funding or insurance coverage.	• Diverse spectrum of socio-cultural backgrounds to reduce selection bias. • Combination of two independent data collection methods was utilised • Co-moderator used to facilitate the interviews. • Member check method used for transcripts • Interviewees could verify transcripts and provide feedback • Peer Reviewed • Data saturation achieved • Ethical approval obtained	• Sample selection bias. • Small sample size may not be generalisable and may not capture heterogeneity of the Māori and Pacific populations as a whole. • Sample consisted of fewer Māori and Pacific participants than anticipated	• Barriers • Managing treatment impact and quality of life • Person centred relationship and communication

Appendix 7: Preference for sleep management strategies among prostate cancer patients: An Aotearoa/New Zealand perspective (Delpachitra et al., 2020)



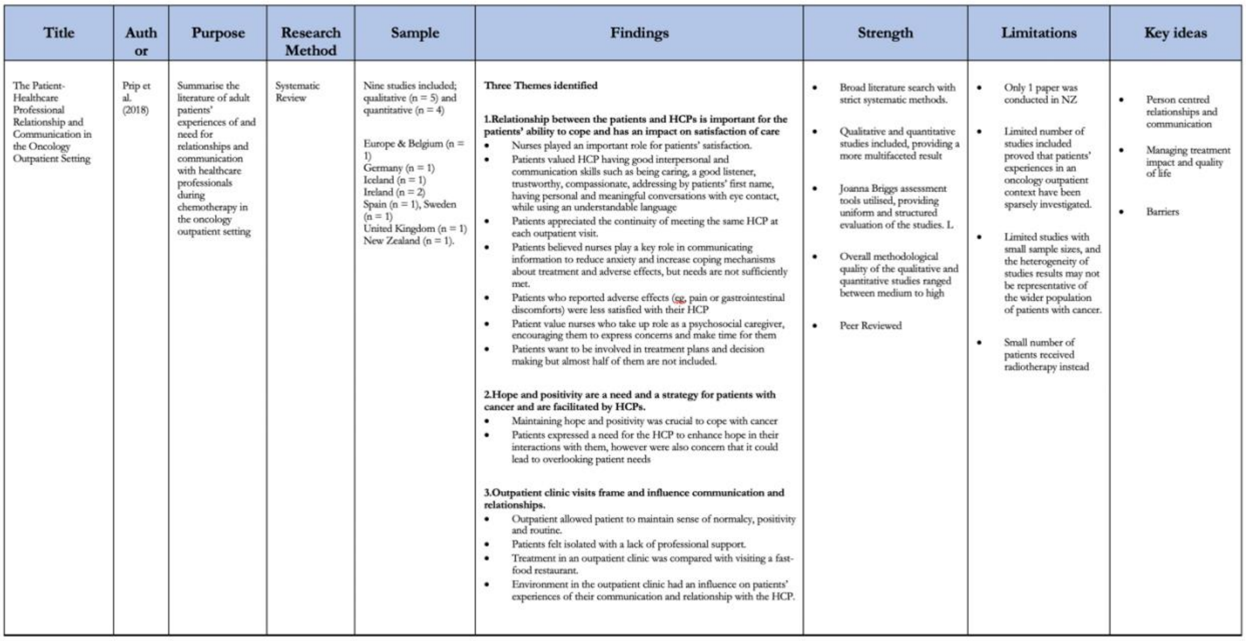
Title	Author	Purpose	Research Method	Sample	Findings	Strength	Limitations	Key ideas
Preference for sleep management strategies among prostate cancer patients: An Aotearoa/New Zealand perspective	Delpachitra et al. (2020)	1. Determine if sleep quality influences parameters that can affect daytime functioning in prostate cancer patients. 2. Explore strategies patients had used to manage sleep problems, as well as other treatments that they would consider using.	Quantitative Research using online surveys	• 82 male participants over 40 years old in New Zealand • Recruited online primarily through Facebook advertising.	• Patients with more severe insomnia symptoms expressed fatigue and daytime sleepiness and are more likely to seek interventions. • Most patients are willing to consider making lifestyle and behavioural changes to improve sleep including hypnosis. • Sleep/behaviour education is vital for insomnia . • Some participants are cautious of the use of medications due to side effects and would rather try non-pharmacological methods. • Strategies mentioned by participants includes having comfortable room and bed, as well as consistent schedule for waking up and sleeping. • Majority of participants did not consider cost as a barrier, except for two participants.	• Ethical approval obtained • Survey included consent form • Peer Reviewed	• Online collected data may not be a good representation of all patients. • Small sample size, with lack of sufficient cultural diversity. • Majority had high education and socioeconomic background and may not represent other demographics. • Participants may be biased towards patients with insomnia. • Patients in sample may have underlying sleep apnoea problem prior to having prostate cancer treatment.	• Support system and self-advocacy • Barrier • Educational and lifestyle support

Appendix 8: The Cancer Stories Project: narratives of encounters with cancer in Aotearoa, New Zealand (Egan et al., 2016)



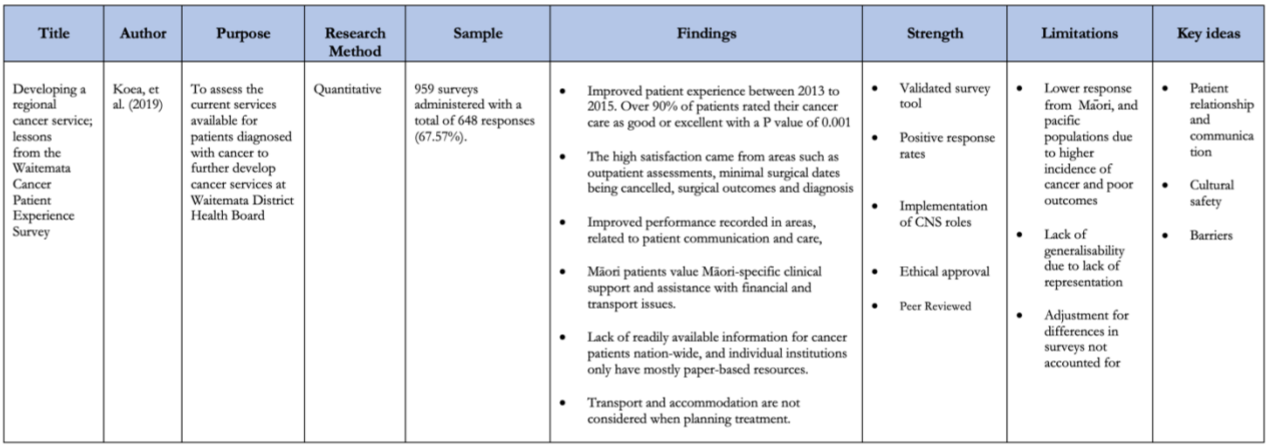
Title	Author	Purpose	Research Method	Sample	Findings	Strength	Limitations	Key ideas
The Cancer Stories Project: narratives of encounters with cancer in Aotearoa, New Zealand	Egan et al. (2016)	Identify the factors that empower cancer patients as well as explore coping and support mechanisms people adopted to help understand and manage their cancer experience.	Qualitative participatory research approach, using semi structured interviews	38 cancer survivors in the lower half of the North Island, New Zealand (NZ)	**Seven Themes identified:** **1. Attitude and Change** • Positive attitude and environment was a crucial aspect and improved patient experience. • Forward thinking helped patients get through treatment and gave more enriching outlook of life despite challenges from treatment, inspiring patients to be advocates for awareness and prevention **2.Family/whānau, friends** • Vital aspect during treatment and cancer experience to provide support and assist patients to better understand their cancer. • Patient with no outside support sought resilience within themselves. • Engagement of family and friends depended on diagnosis **3.Support** • Participants sought various forms of support and self-care during their cancer journey including spiritual and active prayer **4.Healthcare professionals (HCPs) and services** • Patients appreciated simple and plain language from HCPs when conveying information. • Support from HCP was essential when discussing and deciding on treatment plans. • Patients recognised HCPs who showed empathy for their cancer journey and made themselves available. **5.Employment** • Supportive and empathetic employers, colleagues and workplace environment resulted in better patient experience. • Patients valued being able to contribute to household income. **6.Tangata whenua** • Māori culture had significant influence on their cancer treatment perspective. • Being able to express cultural practice was an essential part of their treatment journey. • Participants expressed that spiritual health is sometimes underestimated as part of holistic health. **7.Barriers** • Health literacy and communication were influencing factors that could either empower or cause distress. Essential for HCP to be able to recognise. • Participants valued use of appropriate and sensitive language as well as professionalism when conveying information. • Language barrier • Lack of timeliness when wanting clarification from HCP on treatment options • Lack of cultural support, connection and competence felt by participants especially amongst Māori. • Culturally relevant holistic focus was perceived as problematic by HCPs.	• Kaumatua/kuia (Māori elders) advisory group were involved in discussions around cultural issues • Two external academics were consulted on the project • Ethical approval obtained • Culturally diverse sample with reasonable population of Māori • Information sheet given and consenting done prior to interviews. • Peer Reviewed	• Not all tumour types or ethnicities were included. • Analysis did not include theoretical perspectives. • Findings are not generalizable quantitatively	• Managing treatment impact and quality of life • Support system and self-advocacy • Person centred relationships and communication • Cultural safety • Barriers

Appendix 9: The Patient-Healthcare Professional Relationship and Communication in the Oncology Outpatient Setting (Prip et al., 2018)



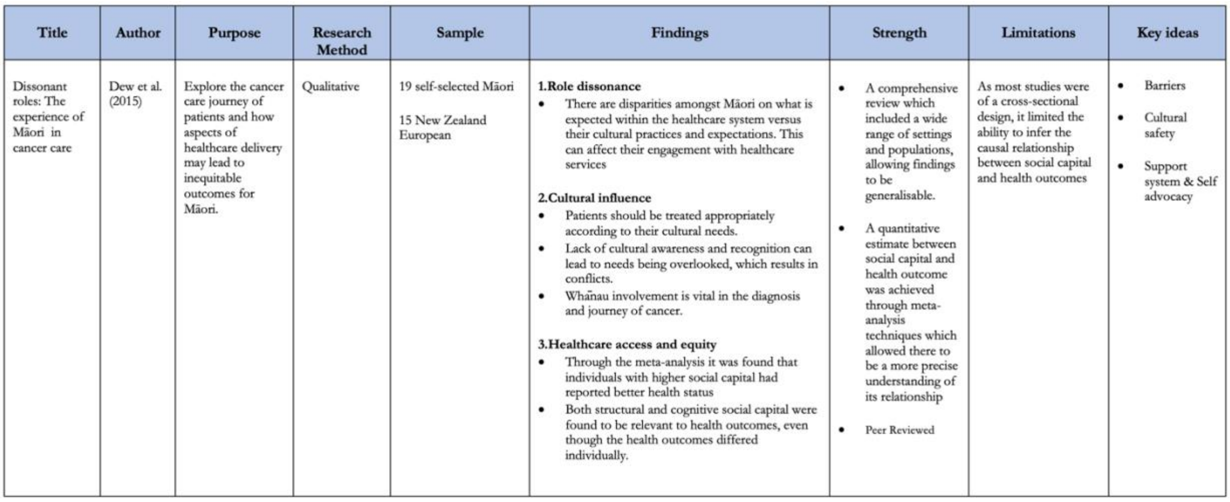
Title	Author	Purpose	Research Method	Sample	Findings	Strength	Limitations	Key ideas
The Patient-Healthcare Professional Relationship and Communication in the Oncology Outpatient Setting	Prip et al. (2018)	Summarise the literature of adult patients' experiences of and need for relationships and communication with healthcare professionals during chemotherapy in the oncology outpatient setting	Systematic Review	Nine studies included; qualitative (n = 5) and quantitative (n = 4) Europe & Belgium (n = 1) Germany (n = 1) Iceland (n = 1) Ireland (n = 2) Spain (n = 1), Sweden (n = 1) United Kingdom (n = 1) New Zealand (n = 1).	**Three Themes identified** **1.Relationship between the patients and HCPs is important for the patients' ability to cope and has an impact on satisfaction of care** • Nurses played an important role for patients' satisfaction. • Patients valued HCP having good interpersonal and communication skills such as being caring, a good listener, trustworthy, compassionate, addressing by patients' first name, having personal and meaningful conversations with eye contact, while using an understandable language • Patients appreciated the continuity of meeting the same HCP at each outpatient visit. • Patients believed nurses play a key role in communicating information to reduce anxiety and increase coping mechanisms about treatment and adverse effects, but needs are not sufficiently met. • Patients who reported adverse effects (eg, pain or gastrointestinal discomforts) were less satisfied with their HCP • Patient value nurses who take up role as a psychosocial caregiver, encouraging them to express concerns and make time for them • Patients want to be involved in treatment plans and decision making but almost half of them are not included. **2.Hope and positivity are a need and a strategy for patients with cancer and are facilitated by HCPs.** • Maintaining hope and positivity was crucial to cope with cancer • Patients expressed a need for the HCP to enhance hope in their interactions with them, however were also concern that it could lead to overlooking patient needs **3.Outpatient clinic visits frame and influence communication and relationships.** • Outpatient allowed patient to maintain sense of normalcy, positivity and routine. • Patients felt isolated with a lack of professional support. • Treatment in an outpatient clinic was compared with visiting a fast-food restaurant. • Environment in the outpatient clinic had an influence on patients' experiences of their communication and relationship with the HCP.	• Broad literature search with strict systematic methods. • Qualitative and quantitative studies included, providing a more multifaceted result • Joanna Briggs assessment tools utilised, providing uniform and structured evaluation of the studies. I. • Overall methodological quality of the qualitative and quantitative studies ranged between medium to high • Peer Reviewed	• Only 1 paper was conducted in NZ • Limited number of studies included proved that patients' experiences in an oncology outpatient context have been sparsely investigated. • Limited studies with small sample sizes, and the heterogeneity of studies results may not be representative of the wider population of patients with cancer. • Small number of patients received radiotherapy instead	• Person centred relationships and communication • Managing treatment impact and quality of life • Barriers

Appendix 10: Developing a regional cancer service; lessons from the Waitemata Cancer Patient Experience Survey (Koea et al., 2019)



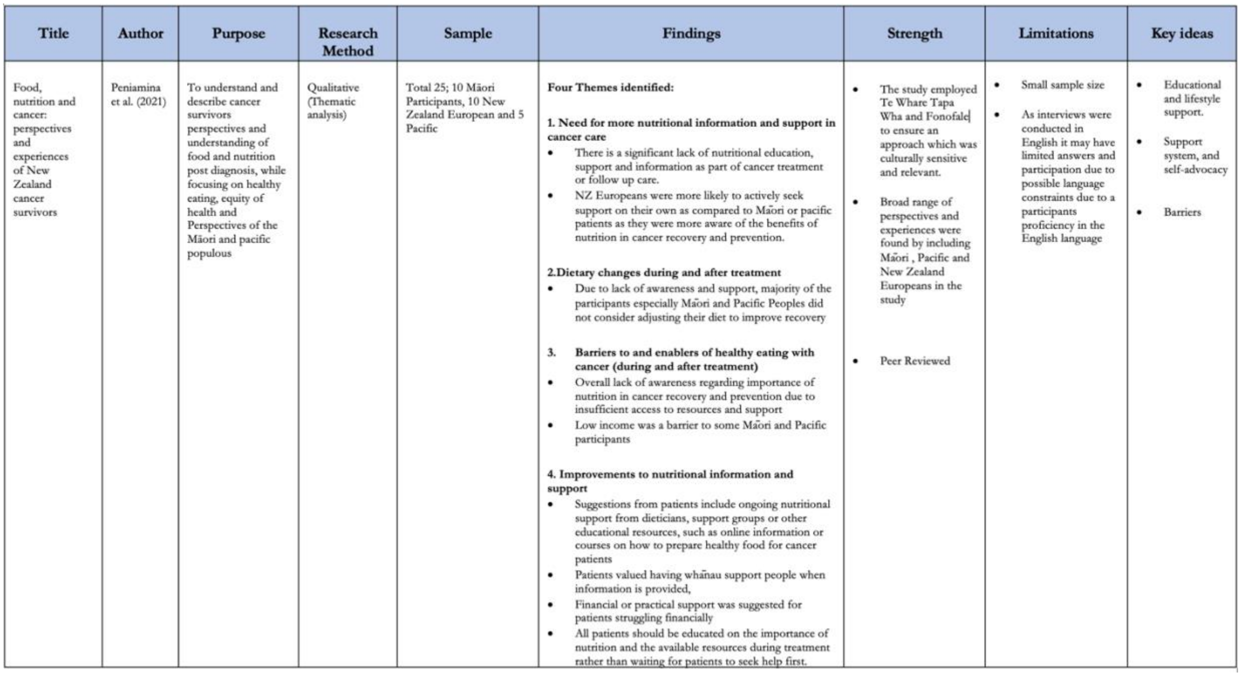
Title	Author	Purpose	Research Method	Sample	Findings	Strength	Limitations	Key ideas
Developing a regional cancer service; lessons from the Waitemata Cancer Patient Experience Survey	Koea, et al. (2019)	To assess the current services available for patients diagnosed with cancer to further develop cancer services at Waitemata District Health Board	Quantitative	959 surveys administered with a total of 648 responses (67.57%).	• Improved patient experience between 2013 to 2015. Over 90% of patients rated their cancer care as good or excellent with a P value of 0.001 • The high satisfaction came from areas such as outpatient assessments, minimal surgical dates being cancelled, surgical outcomes and diagnosis • Improved performance recorded in areas, related to patient communication and care, • Māori patients value Māori-specific clinical support and assistance with financial and transport issues. • Lack of readily available information for cancer patients nation-wide, and individual institutions only have mostly paper-based resources. • Transport and accommodation are not considered when planning treatment.	• Validated survey tool • Positive response rates • Implementation of CNS roles • Ethical approval • Peer Reviewed	• Lower response from Māori, and pacific populations due to higher incidence of cancer and poor outcomes • Lack of generalisability due to lack of representation • Adjustment for differences in surveys not accounted for	• Patient relationship and communication • Cultural safety • Barriers

Appendix 11: Dissonant roles: The experience of Māori in cancer care (Dew et al., 2015)



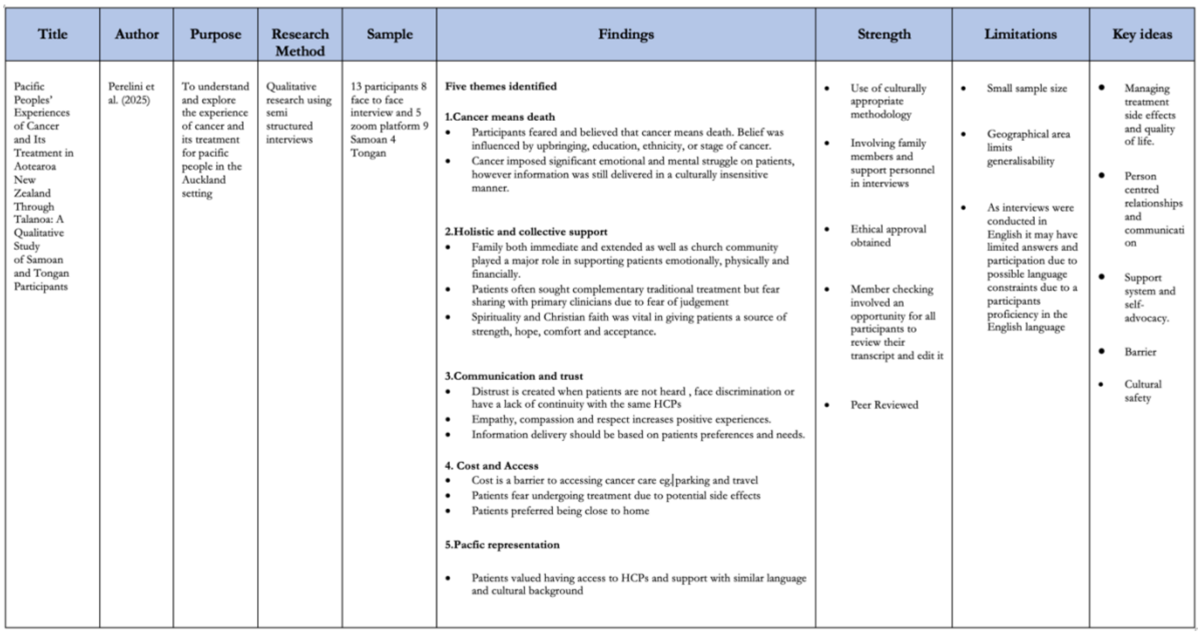
Title	Author	Purpose	Research Method	Sample	Findings	Strength	Limitations	Key ideas
Dissonant roles: The experience of Māori in cancer care	Dew et al. (2015)	Explore the cancer care journey of patients and how aspects of healthcare delivery may lead to inequitable outcomes for Māori.	Qualitative	19 self-selected Māori 15 New Zealand European	**1.Role dissonance** • There are disparities amongst Māori on what is expected within the healthcare system versus their cultural practices and expectations. This can affect their engagement with healthcare services **2.Cultural influence** • Patients should be treated appropriately according to their cultural needs. • Lack of cultural awareness and recognition can lead to needs being overlooked, which results in conflicts. • Whānau involvement is vital in the diagnosis and journey of cancer. **3.Healthcare access and equity** • Through the meta-analysis it was found that individuals with higher social capital had reported better health status • Both structural and cognitive social capital were found to be relevant to health outcomes, even though the health outcomes differed individually.	• A comprehensive review which included a wide range of settings and populations, allowing findings to be generalisable. • A quantitative estimate between social capital and health outcome was achieved through meta-analysis techniques which allowed there to be a more precise understanding of its relationship • Peer Reviewed	As most studies were of a cross-sectional design, it limited the ability to infer the causal relationship between social capital and health outcomes	• Barriers • Cultural safety • Support system & Self advocacy

Appendix 12: Food, nutrition, and cancer: perspectives and experiences of New Zealand cancer survivors (Peniamina et al., 2021)



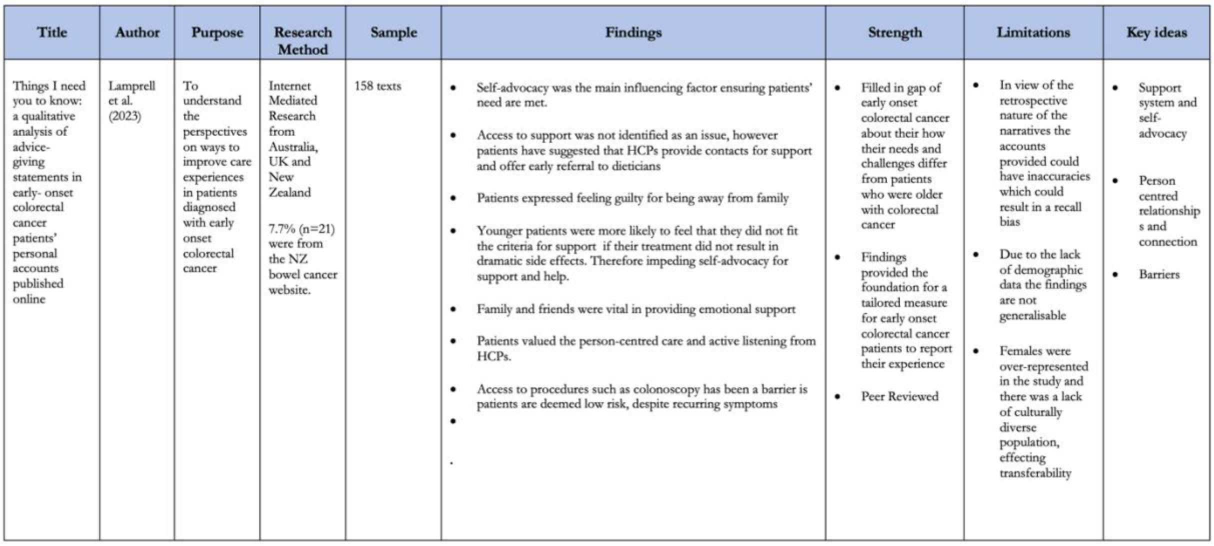
Title	Author	Purpose	Research Method	Sample	Findings	Strength	Limitations	Key ideas
Food, nutrition and cancer: perspectives and experiences of New Zealand cancer survivors	Peniamina et al. (2021)	To understand and describe cancer survivors perspectives and understanding of food and nutrition post diagnosis, while focusing on healthy eating, equity of health and Perspectives of the Māori and pacific populous	Qualitative (Thematic analysis)	Total 25; 10 Māori Participants, 10 New Zealand European and 5 Pacific	**Four Themes identified:** **1. Need for more nutritional information and support in cancer care** • There is a significant lack of nutritional education, support and information as part of cancer treatment or follow up care. • NZ Europeans were more likely to actively seek support on their own as compared to Māori or pacific patients as they were more aware of the benefits of nutrition in cancer recovery and prevention. **2.Dietary changes during and after treatment** • Due to lack of awareness and support, majority of the participants especially Māori and Pacific Peoples did not consider adjusting their diet to improve recovery **3. Barriers to and enablers of healthy eating with cancer (during and after treatment)** • Overall lack of awareness regarding importance of nutrition in cancer recovery and prevention due to insufficient access to resources and support • Low income was a barrier to some Māori and Pacific participants **4. Improvements to nutritional information and support** • Suggestions from patients include ongoing nutritional support from dieticians, support groups or other educational resources, such as online information or courses on how to prepare healthy food for cancer patients • Patients valued having whānau support people when information is provided, • Financial or practical support was suggested for patients struggling financially • All patients should be educated on the importance of nutrition and the available resources during treatment rather than waiting for patients to seek help first.	• The study employed Te Whare Tapa Wha and Fonofale to ensure an approach which was culturally sensitive and relevant. • Broad range of perspectives and experiences were found by including Māori , Pacific and New Zealand Europeans in the study • Peer Reviewed	• Small sample size • As interviews were conducted in English it may have limited answers and participation due to possible language constraints due to a participants proficiency in the English language	• Educational and lifestyle support. • Support system, and self-advocacy • Barriers

Appendix 13: Pacific Peoples' Experiences of Cancer and Its Treatment in Aotearoa New Zealand Through Talanoa: A Qualitative Study of Samoan and Tongan Participants (Perelini et al., 2025)



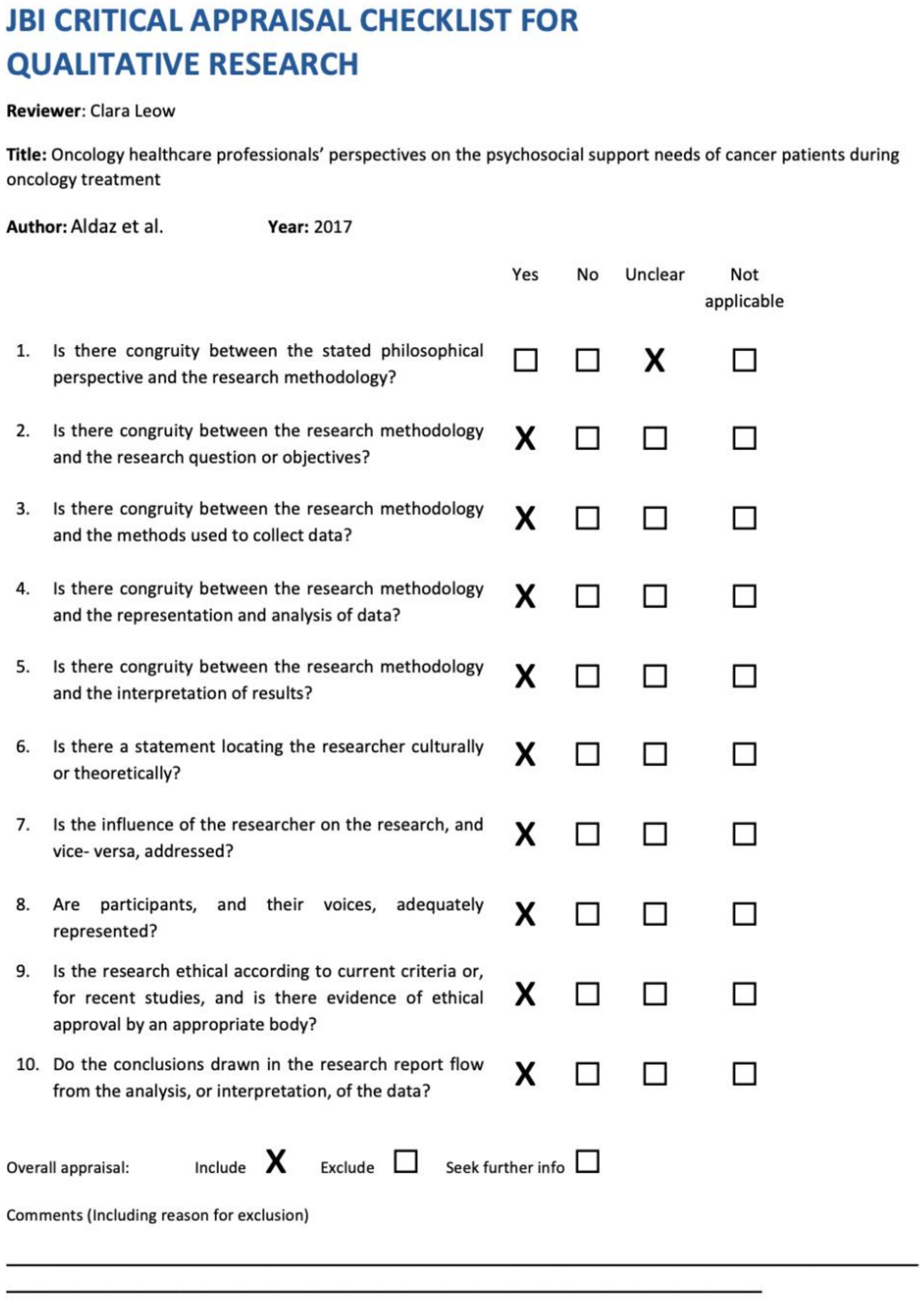
Title	Author	Purpose	Research Method	Sample	Findings	Strength	Limitations	Key ideas
Pacific Peoples' Experiences of Cancer and Its Treatment in Aotearoa New Zealand Through Talanoa: A Qualitative Study of Samoan and Tongan Participants	Perelini et al. (2025)	To understand and explore the experience of cancer and its treatment for pacific people in the Auckland setting	Qualitative research using semi structured interviews	13 participants 8 face to face interview and 5 zoom platform 9 Samoan 4 Tongan	**Five themes identified** **1.Cancer means death** • Participants feared and believed that cancer means death. Belief was influenced by upbringing, education, ethnicity, or stage of cancer. • Cancer imposed significant emotional and mental struggle on patients, however information was still delivered in a culturally insensitive manner. **2.Holistic and collective support** • Family both immediate and extended as well as church community played a major role in supporting patients emotionally, physically and financially. • Patients often sought complementary traditional treatment but fear sharing with primary clinicians due to fear of judgement • Spirituality and Christian faith was vital in giving patients a source of strength, hope, comfort and acceptance. **3.Communication and trust** • Distrust is created when patients are not heard , face discrimination or have a lack of continuity with the same HCPs • Empathy, compassion and respect increases positive experiences. • Information delivery should be based on patients preferences and needs. **4. Cost and Access** • Cost is a barrier to accessing cancer care eg.parking and travel • Patients fear undergoing treatment due to potential side effects • Patients preferred being close to home **5.Pacfic representation** • Patients valued having access to HCPs and support with similar language and cultural background	• Use of culturally appropriate methodology • Involving family members and support personnel in interviews • Ethical approval obtained • Member checking involved an opportunity for all participants to review their transcript and edit it • Peer Reviewed	• Small sample size • Geographical area limits generalisability • As interviews were conducted in English it may have limited answers and participation due to possible language constraints due to a participants proficiency in the English language	• Managing treatment side effects and quality of life. • Person centred relationships and communication • Support system and self-advocacy. • Barrier • Cultural safety

Appendix 14: Things I need you to know: a qualitative analysis of advice- giving statements in early-onset colorectal cancer patients' personal accounts published online (Lamprell et al., 2023)



Title	Author	Purpose	Research Method	Sample	Findings	Strength	Limitations	Key ideas
Things I need you to know: a qualitative analysis of advice-giving statements in early- onset colorectal cancer patients' personal accounts published online	Lamprell et al. (2023)	To understand the perspectives on ways to improve care experiences in patients diagnosed with early onset colorectal cancer	Internet Mediated Research from Australia, UK and New Zealand 7.7% (n=21) were from the NZ bowel cancer website.	158 texts	• Self-advocacy was the main influencing factor ensuring patients' need are met. • Access to support was not identified as an issue, however patients have suggested that HCPs provide contacts for support and offer early referral to dieticians • Patients expressed feeling guilty for being away from family • Younger patients were more likely to feel that they did not fit the criteria for support if their treatment did not result in dramatic side effects. Therefore impeding self-advocacy for support and help. • Family and friends were vital in providing emotional support • Patients valued the person-centred care and active listening from HCPs. • Access to procedures such as colonoscopy has been a barrier is patients are deemed low risk, despite recurring symptoms • .	• Filled in gap of early onset colorectal cancer about their how their needs and challenges differ from patients who were older with colorectal cancer • Findings provided the foundation for a tailored measure for early onset colorectal cancer patients to report their experience • Peer Reviewed	• In view of the retrospective nature of the narratives the accounts provided could have inaccuracies which could result in a recall bias • Due to the lack of demographic data the findings are not generalisable • Females were over-represented in the study and there was a lack of culturally diverse population, effecting transferability	• Support system and self-advocacy • Person centred relationships and connection • Barriers

Appendix 15



JBI CRITICAL APPRAISAL CHECKLIST FOR QUALITATIVE RESEARCH

Reviewer: Clara Leow

Title: Oncology healthcare professionals' perspectives on the psychosocial support needs of cancer patients during oncology treatment

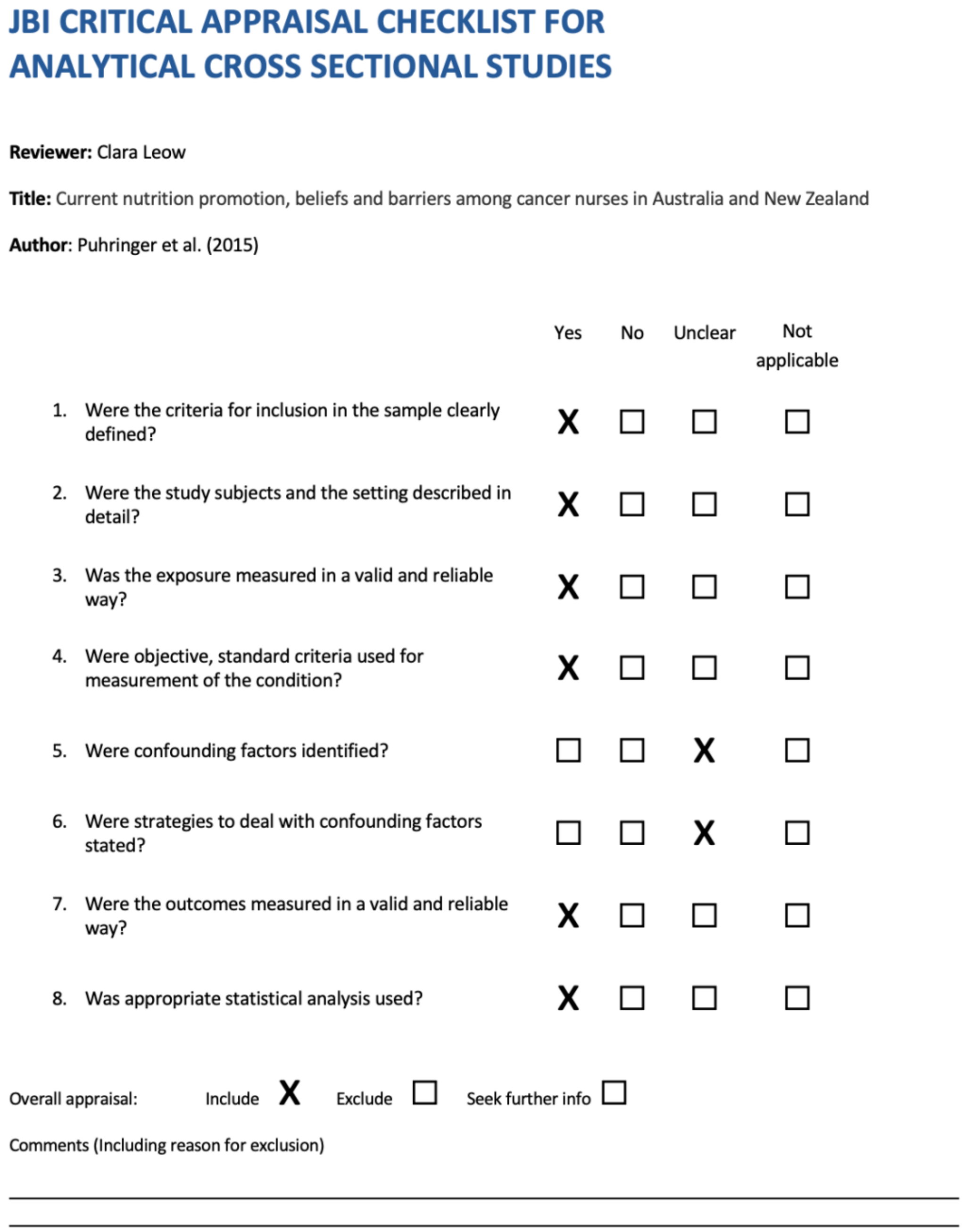
Author: Aldaz et al. **Year:** 2017

	Yes	No	Unclear	Not applicable
1. Is there congruity between the stated philosophical perspective and the research methodology?	☐	☐	X	☐
2. Is there congruity between the research methodology and the research question or objectives?	X	☐	☐	☐
3. Is there congruity between the research methodology and the methods used to collect data?	X	☐	☐	☐
4. Is there congruity between the research methodology and the representation and analysis of data?	X	☐	☐	☐
5. Is there congruity between the research methodology and the interpretation of results?	X	☐	☐	☐
6. Is there a statement locating the researcher culturally or theoretically?	X	☐	☐	☐
7. Is the influence of the researcher on the research, and vice- versa, addressed?	X	☐	☐	☐
8. Are participants, and their voices, adequately represented?	X	☐	☐	☐
9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	X	☐	☐	☐
10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	X	☐	☐	☐

Overall appraisal: Include X Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

Appendix 16



JBI CRITICAL APPRAISAL CHECKLIST FOR ANALYTICAL CROSS SECTIONAL STUDIES

Reviewer: Clara Leow

Title: Current nutrition promotion, beliefs and barriers among cancer nurses in Australia and New Zealand

Author: Puhringer et al. (2015)

	Yes	No	Unclear	Not applicable
1. Were the criteria for inclusion in the sample clearly defined?	X	☐	☐	☐
2. Were the study subjects and the setting described in detail?	X	☐	☐	☐
3. Was the exposure measured in a valid and reliable way?	X	☐	☐	☐
4. Were objective, standard criteria used for measurement of the condition?	X	☐	☐	☐
5. Were confounding factors identified?	☐	☐	X	☐
6. Were strategies to deal with confounding factors stated?	☐	☐	X	☐
7. Were the outcomes measured in a valid and reliable way?	X	☐	☐	☐
8. Was appropriate statistical analysis used?	X	☐	☐	☐

Overall appraisal: Include X Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

Appendix 17

JBI CRITICAL APPRAISAL CHECKLIST FOR QUALITATIVE RESEARCH

Reviewer: Clara Leow

Title: Oncology Nurses' Perception of Cancer Pain: A Qualitative Exploratory Study

Author: Garcia, Whitehead, & Winter. (2015)

	Yes	No	Unclear	Not applicable
1. Is there congruity between the stated philosophical perspective and the research methodology?	X	☐	☐	☐
2. Is there congruity between the research methodology and the research question or objectives?	X	☐	☐	☐
3. Is there congruity between the research methodology and the methods used to collect data?	X	☐	☐	☐
4. Is there congruity between the research methodology and the representation and analysis of data?	X	☐	☐	☐
5. Is there congruity between the research methodology and the interpretation of results?	X	☐	☐	☐
6. Is there a statement locating the researcher culturally or theoretically?	☐	☐	X	☐
7. Is the influence of the researcher on the research, and vice- versa, addressed?	☐	X	☐	☐
8. Are participants, and their voices, adequately represented?	X	☐	☐	☐
9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	X	☐	☐	☐
10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	X	☐	☐	☐

Overall appraisal: Include X Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

____

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Appendix 18

JBI CRITICAL APPRAISAL CHECKLIST FOR ANALYTICAL CROSS SECTIONAL STUDIES

Reviewer: Clara Leow

Title: Physical Activity Promotion, Beliefs, and Barriers Among Australasian Oncology Nurses

Author: Keogh et al. (2017)

	Yes	No	Unclear	Not applicable
1. Were the criteria for inclusion in the sample clearly defined?	X	☐	☐	☐
2. Were the study subjects and the setting described in detail?	X	☐	☐	☐
3. Was the exposure measured in a valid and reliable way?	X	☐	☐	☐
4. Were objective, standard criteria used for measurement of the condition?	X	☐	☐	☐
5. Were confounding factors identified?	☐	☐	X	☐
6. Were strategies to deal with confounding factors stated?	☐	☐	X	☐
7. Were the outcomes measured in a valid and reliable way?	X	☐	☐	☐
8. Was appropriate statistical analysis used?	X	☐	☐	☐

Overall appraisal: Include X Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

Appendix 19

JBI CRITICAL APPRAISAL CHECKLIST FOR QUALITATIVE RESEARCH

Reviewer: Clara Leow

Title: Single cases from multiple perspectives: a qualitative study comparing the experiences of patients, patients' caregivers, surgeons, and nurses when bad news is delivered about cancer

Author: Matthews et al. (2020)

	Yes	No	Unclear	Not applicable
1. Is there congruity between the stated philosophical perspective and the research methodology?	X	☐	☐	☐
2. Is there congruity between the research methodology and the research question or objectives?	X	☐	☐	☐
3. Is there congruity between the research methodology and the methods used to collect data?	X	☐	☐	☐
4. Is there congruity between the research methodology and the representation and analysis of data?	X	☐	☐	☐
5. Is there congruity between the research methodology and the interpretation of results?	X	☐	☐	☐
6. Is there a statement locating the researcher culturally or theoretically?	X	☐	☐	☐
7. Is the influence of the researcher on the research, and vice- versa, addressed?	X	☐	☐	☐
8. Are participants, and their voices, adequately represented?	X	☐	☐	☐
9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	X	☐	☐	☐
10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	X	☐	☐	☐

Overall appraisal: Include X Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

Appendix 20

JBI CRITICAL APPRAISAL CHECKLIST FOR QUALITATIVE RESEARCH

Reviewer: Clara Leow

Title: Exploring the important determinant shaping treatment preferences: Qualitative Insights into Breast Cancer Patient Experiences and Perspectives in New Zealand

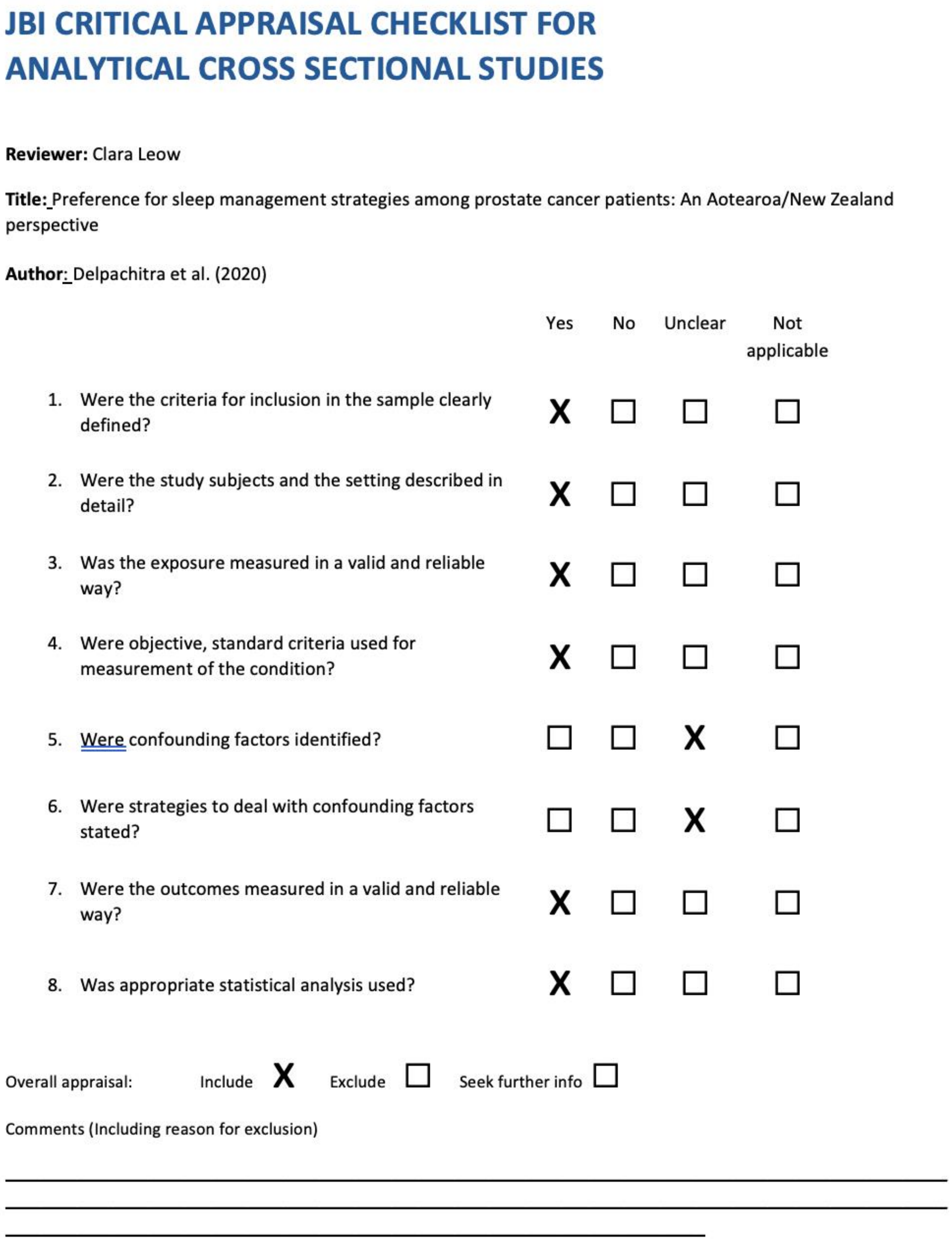
Author: Yeo et al. (2023)

	Yes	No	Unclear	Not applicable
1. Is there congruity between the stated philosophical perspective and the research methodology?	X	☐	☐	☐
2. Is there congruity between the research methodology and the research question or objectives?	X	☐	☐	☐
3. Is there congruity between the research methodology and the methods used to collect data?	X	☐	☐	☐
4. Is there congruity between the research methodology and the representation and analysis of data?	X	☐	☐	☐
5. Is there congruity between the research methodology and the interpretation of results?	X	☐	☐	☐
6. Is there a statement locating the researcher culturally or theoretically?	☐	☐	X	☐
7. Is the influence of the researcher on the research, and vice- versa, addressed?	☐	☐	X	☐
8. Are participants, and their voices, adequately represented?	X	☐	☐	☐
9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	X	☐	☐	☐
10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	X	☐	☐	☐

Overall appraisal: Include X Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

Appendix 21



JBI CRITICAL APPRAISAL CHECKLIST FOR ANALYTICAL CROSS SECTIONAL STUDIES

Reviewer: Clara Leow

Title: Preference for sleep management strategies among prostate cancer patients: An Aotearoa/New Zealand perspective

Author: Delpachitra et al. (2020)

	Yes	No	Unclear	Not applicable
1. Were the criteria for inclusion in the sample clearly defined?	X	☐	☐	☐
2. Were the study subjects and the setting described in detail?	X	☐	☐	☐
3. Was the exposure measured in a valid and reliable way?	X	☐	☐	☐
4. Were objective, standard criteria used for measurement of the condition?	X	☐	☐	☐
5. Were confounding factors identified?	☐	☐	X	☐
6. Were strategies to deal with confounding factors stated?	☐	☐	X	☐
7. Were the outcomes measured in a valid and reliable way?	X	☐	☐	☐
8. Was appropriate statistical analysis used?	X	☐	☐	☐

Overall appraisal: Include X Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

Appendix 22

JBI CRITICAL APPRAISAL CHECKLIST FOR QUALITATIVE RESEARCH

Reviewer: Clara Leow

Title: The Cancer Stories Project: narratives of encounters with cancer in Aotearoa, New Zealand

Author: Egan et al. (2016)

	Yes	No	Unclear	Not applicable
1. Is there congruity between the stated philosophical perspective and the research methodology?	X	☐	☐	☐
2. Is there congruity between the research methodology and the research question or objectives?	X	☐	☐	☐
3. Is there congruity between the research methodology and the methods used to collect data?	X	☐	☐	☐
4. Is there congruity between the research methodology and the representation and analysis of data?	X	☐	☐	☐
5. Is there congruity between the research methodology and the interpretation of results?	X	☐	☐	☐
6. Is there a statement locating the researcher culturally or theoretically?	X	☐	☐	☐
7. Is the influence of the researcher on the research, and vice- versa, addressed?	☐	☐	X	☐
8. Are participants, and their voices, adequately represented?	X	☐	☐	☐
9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	X	☐	☐	☐
10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	X	☐	☐	☐

Overall appraisal: Include X Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

Appendix 23

JBI CRITICAL APPRAISAL CHECKLIST FOR SYSTEMATIC REVIEWS AND RESEARCH SYNTHESES

Reviewer: Clara Leow

Title: The Patient-Healthcare Professional Relationship and Communication in the Oncology Outpatient Setting

Author: Prip et al. (2018)

	Yes	No	Unclear	Not applicable
1. Is the review question clearly and explicitly stated?	X	☐	☐	☐
2. Were the inclusion criteria appropriate for the review question?	X	☐	☐	☐
3. Was the search strategy appropriate?	X	☐	☐	☐
4. Were the sources and resources used to search for studies adequate?	X	☐	☐	☐
5. Were the criteria for appraising studies appropriate?	X	☐	☐	☐
6. Was critical appraisal conducted by two or more reviewers independently?	X	☐	☐	☐
7. Were there methods to minimize errors in data extraction?	☐	☐	X	☐
8. Were the methods used to combine studies appropriate?	X	☐	☐	☐
9. Was the likelihood of publication bias assessed?	☐	☐	X	☐
10. Were recommendations for policy and/or practice supported by the reported data?	X	☐	☐	☐
11. Were the specific directives for new research appropriate?	X	☐	☐	☐

Overall appraisal: Include X Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

Appendix 24

JBI CRITICAL APPRAISAL CHECKLIST FOR ANALYTICAL CROSS SECTIONAL STUDIES

Reviewer: Clara Leow

Title:_ Developing a regional cancer service; lessons from the Waitemata Cancer Patient Experience Survey

Author: Koea et al. (2019)

	Yes	No	Unclear	Not applicable
1. Were the criteria for inclusion in the sample clearly defined?	X	☐	☐	☐
2. Were the study subjects and the setting described in detail?	X	☐	☐	☐
3. Was the exposure measured in a valid and reliable way?	X	☐	☐	☐
4. Were objective, standard criteria used for measurement of the condition?	X	☐	☐	☐
5. Were confounding factors identified?	X	☐	☐	☐
6. Were strategies to deal with confounding factors stated?	☐	X	☐	☐
7. Were the outcomes measured in a valid and reliable way?	X	☐	☐	☐
8. Was appropriate statistical analysis used?	X	☐	☐	☐

Overall appraisal: Include X Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

Appendix 25

JBI CRITICAL APPRAISAL CHECKLIST FOR QUALITATIVE RESEARCH

Reviewer: Clara Leow

Title:_ Dissonant roles: The experience of Māori in cancer care

Author: Dew et al. (2015)

	Yes	No	Unclear	Not applicable
1. Is there congruity between the stated philosophical perspective and the research methodology?	X	☐	☐	☐
2. Is there congruity between the research methodology and the research question or objectives?	X	☐	☐	☐
3. Is there congruity between the research methodology and the methods used to collect data?	X	☐	☐	☐
4. Is there congruity between the research methodology and the representation and analysis of data?	X	☐	☐	☐
5. Is there congruity between the research methodology and the interpretation of results?	X	☐	☐	☐
6. Is there a statement locating the researcher culturally or theoretically?	X	☐	☐	☐
7. Is the influence of the researcher on the research, and vice- versa, addressed?	☐	X	☐	☐
8. Are participants, and their voices, adequately represented?	X	☐	☐	☐
9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	X	☐	☐	☐
10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	X	☐	☐	☐

Overall appraisal: Include X Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

Appendix 26

JBI CRITICAL APPRAISAL CHECKLIST FOR QUALITATIVE RESEARCH

Reviewer: Clara Leow

Title:_ Food, nutrition and cancer: perspectives and experiences of New Zealand cancer survivors

Author: Peniamina et al. (2021)

	Yes	No	Unclear	Not applicable
1. Is there congruity between the stated philosophical perspective and the research methodology?	X	☐	☐	☐
2. Is there congruity between the research methodology and the research question or objectives?	X	☐	☐	☐
3. Is there congruity between the research methodology and the methods used to collect data?	X	☐	☐	☐
4. Is there congruity between the research methodology and the representation and analysis of data?	X	☐	☐	☐
5. Is there congruity between the research methodology and the interpretation of results?	X	☐	☐	☐
6. Is there a statement locating the researcher culturally or theoretically?	X	☐	☐	☐
7. Is the influence of the researcher on the research, and vice- versa, addressed?	☐	X	☐	☐
8. Are participants, and their voices, adequately represented?	X	☐	☐	☐
9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	X	☐	☐	☐
10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	X	☐	☐	☐

Overall appraisal: Include X Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

Appendix 27

JBI CRITICAL APPRAISAL CHECKLIST FOR QUALITATIVE RESEARCH

Reviewer: Clara Leow

Title:_ Pacific Peoples' Experiences of Cancer and Its Treatment in Aotearoa New Zealand Through Talanoa: A
Qualitative Study of Samoan and Tongan
Participants

Author: Perelini et al. (2025)

	Yes	No	Unclear	Not applicable
1. Is there congruity between the stated philosophical perspective and the research methodology?	X	☐	☐	☐
2. Is there congruity between the research methodology and the research question or objectives?	X	☐	☐	☐
3. Is there congruity between the research methodology and the methods used to collect data?	X	☐	☐	☐
4. Is there congruity between the research methodology and the representation and analysis of data?	X	☐	☐	☐
5. Is there congruity between the research methodology and the interpretation of results?	X	☐	☐	☐
6. Is there a statement locating the researcher culturally or theoretically?	X	☐	☐	☐
7. Is the influence of the researcher on the research, and vice- versa, addressed?	X	☐	☐	☐
8. Are participants, and their voices, adequately represented?	X	☐	☐	☐
9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	X	☐	☐	☐
10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	X	☐	☐	☐

Overall appraisal: Include X Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

Appendix 28

JBI CRITICAL APPRAISAL CHECKLIST FOR ANALYTICAL CROSS SECTIONAL STUDIES

Reviewer: Clara Leow

Title:_ Things I need you to know: a qualitative analysis of advice- giving statements in early- onset colorectal cancer patients' personal accounts published online

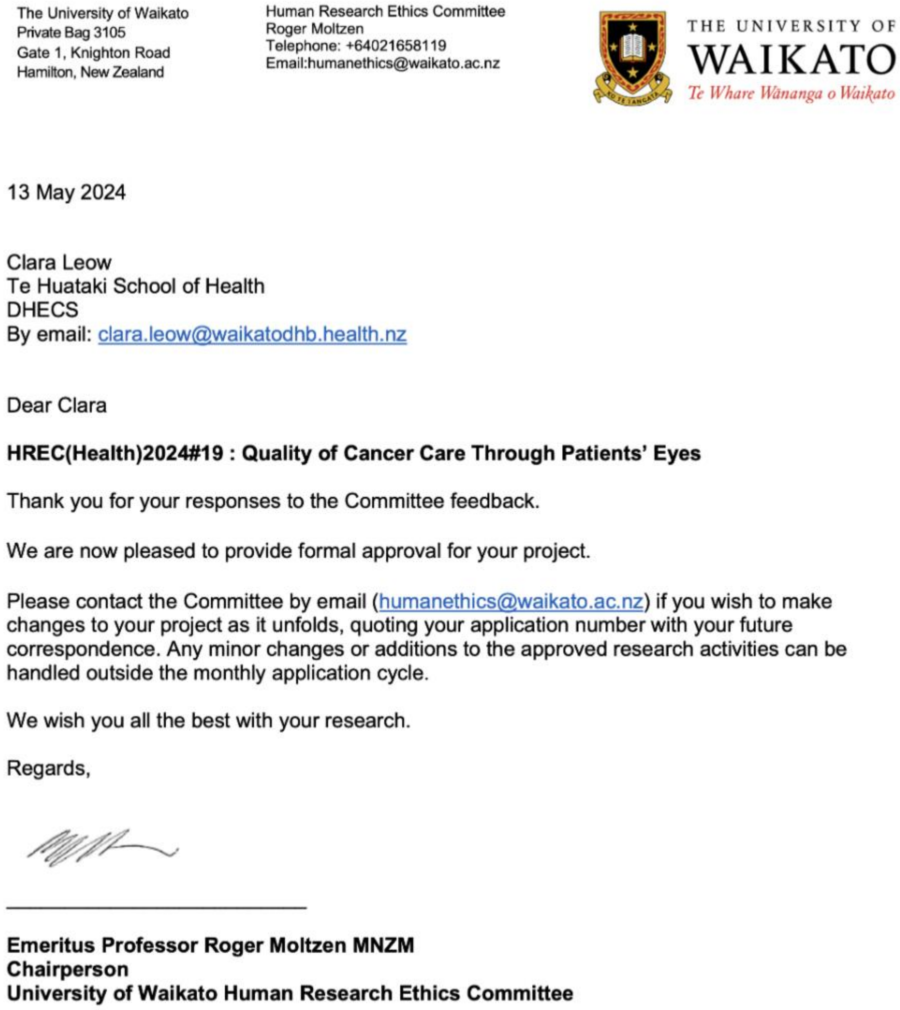
Author: Lamprell et al. (2023)

	Yes	No	Unclear	Not applicable
11. Is there congruity between the stated philosophical perspective and the research methodology?	X	☐	☐	☐
12. Is there congruity between the research methodology and the research question or objectives?	X	☐	☐	☐
13. Is there congruity between the research methodology and the methods used to collect data?	X	☐	☐	☐
14. Is there congruity between the research methodology and the representation and analysis of data?	X	☐	☐	☐
15. Is there congruity between the research methodology and the interpretation of results?	X	☐	☐	☐
16. Is there a statement locating the researcher culturally or theoretically?	☐	X	☐	☐
17. Is the influence of the researcher on the research, and vice- versa, addressed?	☐	☐	X	☐
18. Are participants, and their voices, adequately represented?	X	☐	☐	☐
19. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	X	☐	☐	☐
20. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	X	☐	☐	☐

Overall appraisal: Include X Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

Appendix 29: Ethics approval letter



The University of Waikato
Private Bag 3105
Gate 1, Knighton Road
Hamilton, New Zealand

Human Research Ethics Committee
Roger Moltzen
Telephone: +64021658119
Email:humanethics@waikato.ac.nz

THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

13 May 2024

Clara Leow
Te Huataki School of Health
DHECS
By email: clara.leow@waikatodhb.health.nz

Dear Clara

HREC(Health)2024#19 : Quality of Cancer Care Through Patients' Eyes

Thank you for your responses to the Committee feedback.

We are now pleased to provide formal approval for your project.

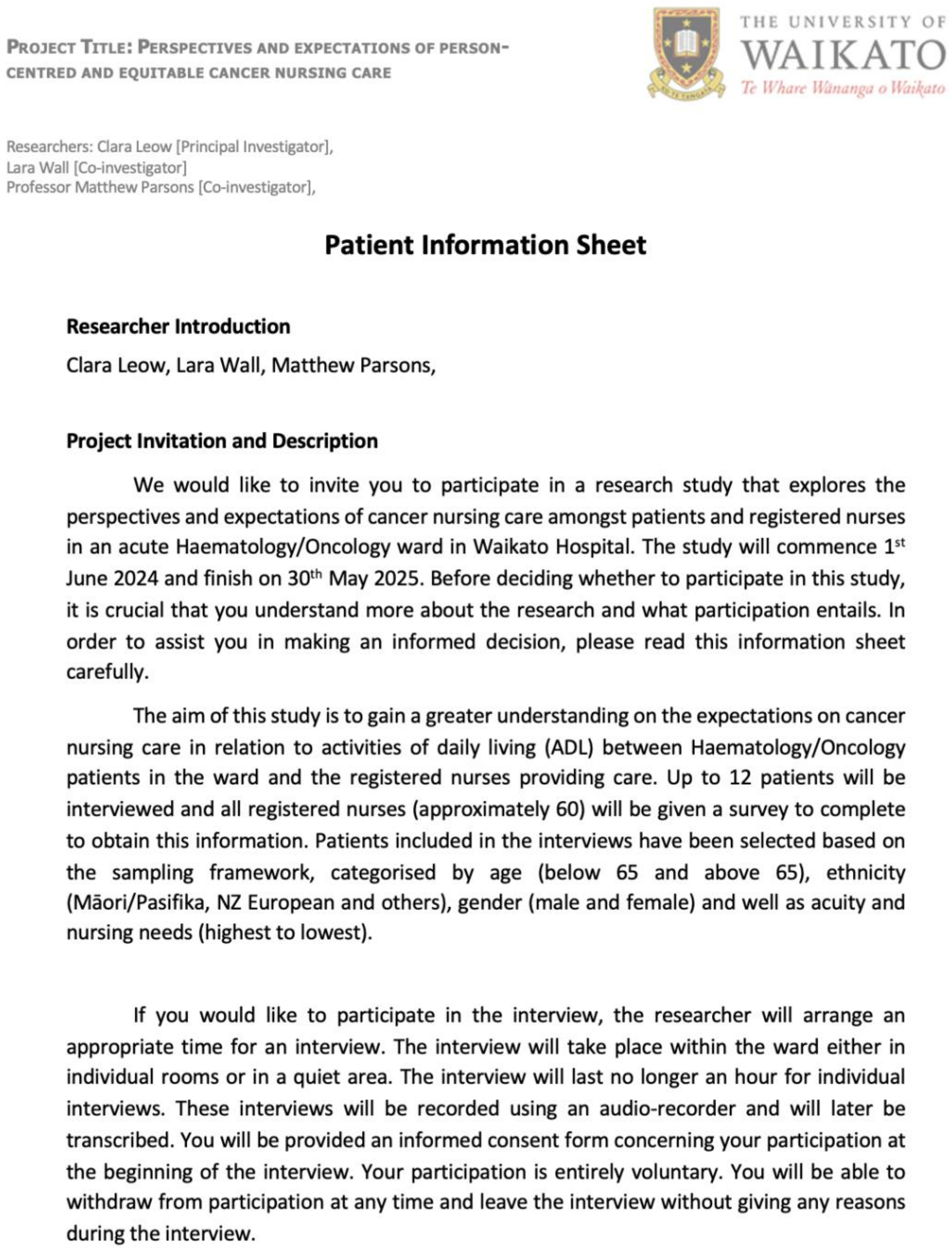
Please contact the Committee by email (humanethics@waikato.ac.nz) if you wish to make changes to your project as it unfolds, quoting your application number with your future correspondence. Any minor changes or additions to the approved research activities can be handled outside the monthly application cycle.

We wish you all the best with your research.

Regards,

Emeritus Professor Roger Moltzen MNZM
Chairperson
University of Waikato Human Research Ethics Committee

Appendix 30: Patient information sheet



PROJECT TITLE: PERSPECTIVES AND EXPECTATIONS OF PERSON-CENTRED AND EQUITABLE CANCER NURSING CARE

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Researchers: Clara Leow [Principal Investigator],
Lara Wall [Co-investigator]
Professor Matthew Parsons [Co-investigator],

Patient Information Sheet

Researcher Introduction

Clara Leow, Lara Wall, Matthew Parsons,

Project Invitation and Description

We would like to invite you to participate in a research study that explores the perspectives and expectations of cancer nursing care amongst patients and registered nurses in an acute Haematology/Oncology ward in Waikato Hospital. The study will commence 1st June 2024 and finish on 30th May 2025. Before deciding whether to participate in this study, it is crucial that you understand more about the research and what participation entails. In order to assist you in making an informed decision, please read this information sheet carefully.

The aim of this study is to gain a greater understanding on the expectations on cancer nursing care in relation to activities of daily living (ADL) between Haematology/Oncology patients in the ward and the registered nurses providing care. Up to 12 patients will be interviewed and all registered nurses (approximately 60) will be given a survey to complete to obtain this information. Patients included in the interviews have been selected based on the sampling framework, categorised by age (below 65 and above 65), ethnicity (Māori/Pasifika, NZ European and others), gender (male and female) and well as acuity and nursing needs (highest to lowest).

If you would like to participate in the interview, the researcher will arrange an appropriate time for an interview. The interview will take place within the ward either in individual rooms or in a quiet area. The interview will last no longer an hour for individual interviews. These interviews will be recorded using an audio-recorder and will later be transcribed. You will be provided an informed consent form concerning your participation at the beginning of the interview. Your participation is entirely voluntary. You will be able to withdraw from participation at any time and leave the interview without giving any reasons during the interview.

Researchers: Clara Leow [Principal Investigator],
Lara Wall [Co-investigator]
Professor Matthew Parsons [Co-investigator],

Anonymity and Confidentiality

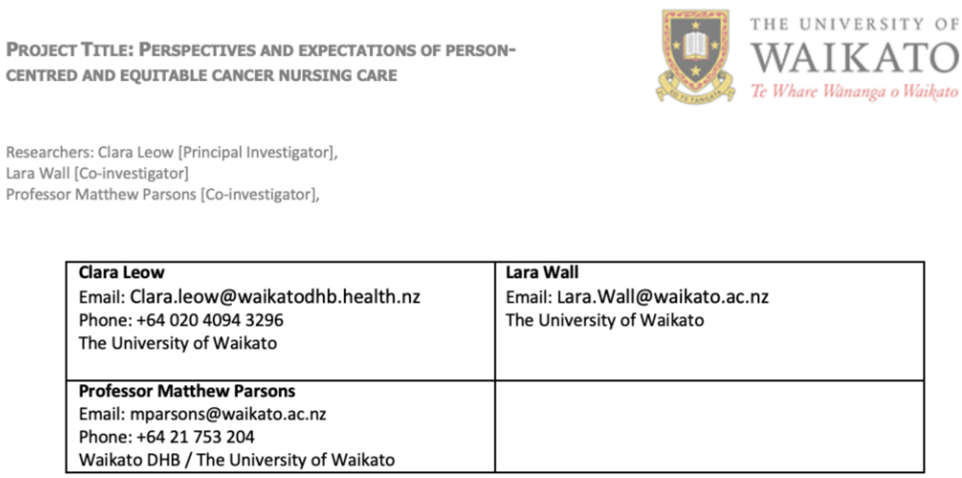
Taking part in this study is voluntary and your participation or nonparticipation will not affect patient care or your relationship with the organisation. Any personal information will be kept separately on a password-protected computer and will be assigned a pseudonym / code for data analysis. It will not be possible to identify you in any reports from the research.

Right to Withdraw from Participation

During the interview or survey, you have the right to refuse to answer any question without giving reason. You have the right to withdraw your consent to participate at any time without giving a reason. Patients will be offered the chance to edit their interview transcript for up to two weeks after participation and have the right to any traceable data from the study up to one month after receiving the interview transcript. You can ask questions about the study at any time, either to the person organising this study or if you want to talk to someone not involved in this study, you can contact the Chair of the University of Waikato Human Participants Ethics Committee.

Data storage/retention/destruction/future use

Participant's personal information and interview transcripts will be kept separately on a password-protected computer, and the information will be assigned a code for data analysis. The audio recording of your interview will be stored on a password-protected computer at The University of Waikato, and only the researchers will be able to access it. After one year, it will be destroyed. The transcript of your interview will be stored on a password-protected computer at The University of Waikato, and only the researchers will be able to access it. It will be destroyed after six years. Your signed consent form will be kept in a locked cabinet at The University of Waikato, and only the researcher will have access to it. It will be destroyed after six years. The answers that you give in this interview will be used in the student researcher's doctoral thesis and may also be presented at conferences and published in journal articles. Thank you very much for your time and help in making this study possible. Should you require any further information, please do not hesitate to contact us.



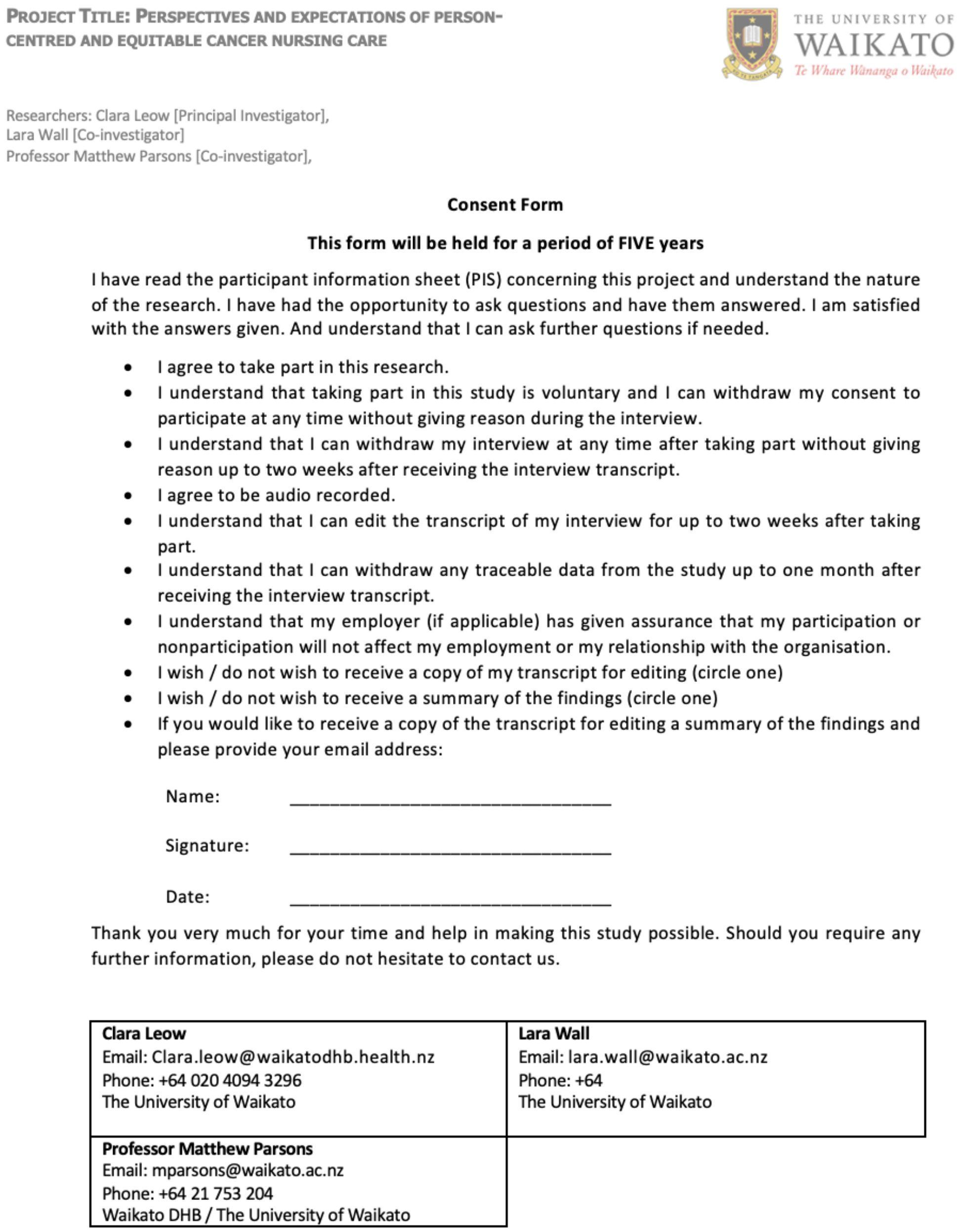
PROJECT TITLE: PERSPECTIVES AND EXPECTATIONS OF PERSON-CENTRED AND EQUITABLE CANCER NURSING CARE

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Researchers: Clara Leow [Principal Investigator],
Lara Wall [Co-investigator]
Professor Matthew Parsons [Co-investigator],

Clara Leow Email: Clara.leow@waikatodhb.health.nz Phone: +64 020 4094 3296 The University of Waikato	**Lara Wall** Email: Lara.Wall@waikato.ac.nz The University of Waikato
Professor Matthew Parsons Email: mparsons@waikato.ac.nz Phone: +64 21 753 204 Waikato DHB / The University of Waikato	

Appendix 31: Patient consent form



PROJECT TITLE: PERSPECTIVES AND EXPECTATIONS OF PERSON-CENTRED AND EQUITABLE CANCER NURSING CARE

THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Researchers: Clara Leow [Principal Investigator],
Lara Wall [Co-investigator]
Professor Matthew Parsons [Co-investigator],

Consent Form

This form will be held for a period of FIVE years

I have read the participant information sheet (PIS) concerning this project and understand the nature of the research. I have had the opportunity to ask questions and have them answered. I am satisfied with the answers given. And understand that I can ask further questions if needed.

- I agree to take part in this research.
- I understand that taking part in this study is voluntary and I can withdraw my consent to participate at any time without giving reason during the interview.
- I understand that I can withdraw my interview at any time after taking part without giving reason up to two weeks after receiving the interview transcript.
- I agree to be audio recorded.
- I understand that I can edit the transcript of my interview for up to two weeks after taking part.
- I understand that I can withdraw any traceable data from the study up to one month after receiving the interview transcript.
- I understand that my employer (if applicable) has given assurance that my participation or nonparticipation will not affect my employment or my relationship with the organisation.
- I wish / do not wish to receive a copy of my transcript for editing (circle one)
- I wish / do not wish to receive a summary of the findings (circle one)
- If you would like to receive a copy of the transcript for editing a summary of the findings and please provide your email address:

Name: ________________________________

Signature: ________________________________

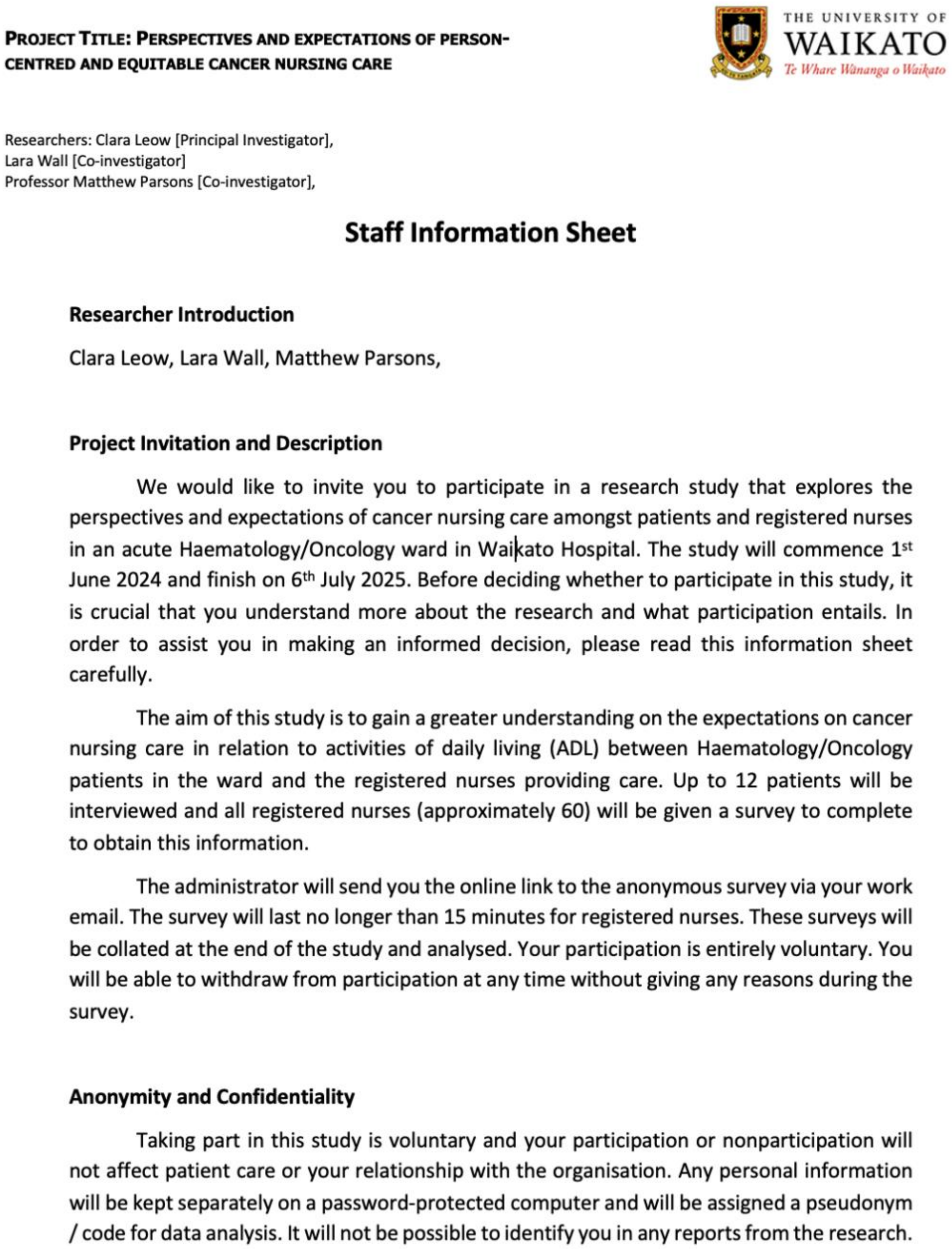
Date: ________________________________

Thank you very much for your time and help in making this study possible. Should you require any further information, please do not hesitate to contact us.

Clara Leow Email: Clara.leow@waikatodhb.health.nz Phone: +64 020 4094 3296 The University of Waikato	**Lara Wall** Email: lara.wall@waikato.ac.nz Phone: +64 The University of Waikato
Professor Matthew Parsons Email: mparsons@waikato.ac.nz Phone: +64 21 753 204 Waikato DHB / The University of Waikato	

Appendix 32: Te Whare Tapa Whā health model

Appendix 33: Staff information sheet



PROJECT TITLE: PERSPECTIVES AND EXPECTATIONS OF PERSON-CENTRED AND EQUITABLE CANCER NURSING CARE

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Researchers: Clara Leow [Principal Investigator],
Lara Wall [Co-investigator]
Professor Matthew Parsons [Co-investigator],

Staff Information Sheet

Researcher Introduction

Clara Leow, Lara Wall, Matthew Parsons,

Project Invitation and Description

We would like to invite you to participate in a research study that explores the perspectives and expectations of cancer nursing care amongst patients and registered nurses in an acute Haematology/Oncology ward in Waikato Hospital. The study will commence 1st June 2024 and finish on 6th July 2025. Before deciding whether to participate in this study, it is crucial that you understand more about the research and what participation entails. In order to assist you in making an informed decision, please read this information sheet carefully.

The aim of this study is to gain a greater understanding on the expectations on cancer nursing care in relation to activities of daily living (ADL) between Haematology/Oncology patients in the ward and the registered nurses providing care. Up to 12 patients will be interviewed and all registered nurses (approximately 60) will be given a survey to complete to obtain this information.

The administrator will send you the online link to the anonymous survey via your work email. The survey will last no longer than 15 minutes for registered nurses. These surveys will be collated at the end of the study and analysed. Your participation is entirely voluntary. You will be able to withdraw from participation at any time without giving any reasons during the survey.

Anonymity and Confidentiality

Taking part in this study is voluntary and your participation or nonparticipation will not affect patient care or your relationship with the organisation. Any personal information will be kept separately on a password-protected computer and will be assigned a pseudonym / code for data analysis. It will not be possible to identify you in any reports from the research.

Right to Withdraw from Participation

During the survey, you have the right to refuse to answer any question without giving reason. You have the right to withdraw your consent to participate at any time without giving a reason. You can ask questions about the study at any time, either to the person organising this study or if you want to talk to someone not involved in this study, you can contact the Chair of the University of Waikato Human Participants Ethics Committee.

Data storage/retention/destruction/future use

Participant's surveys will be kept separately on a password-protected computer at The University of Waikato, and the information will be assigned a code for data analysis. Only the researchers will be able to access it. It will be destroyed after six years. The answers that you give in the survey will be used in the student researcher's doctoral thesis and may also be presented at conferences and published in journal articles. Thank you very much for your time and help in making this study possible. Should you require any further information, please do not hesitate to contact us.

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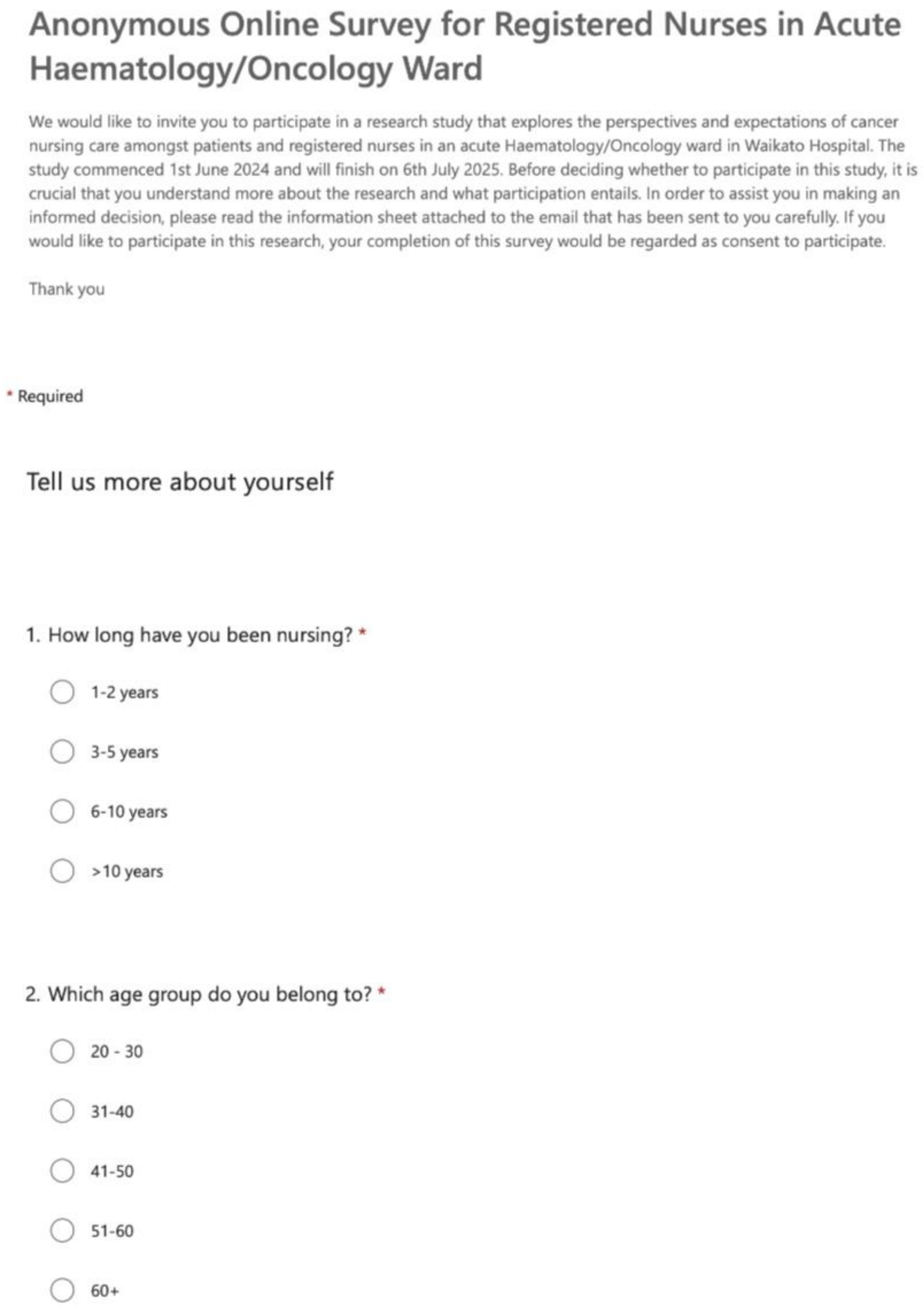
Appendix 34: Anonymous online Likert scale staff survey



Anonymous Online Survey for Registered Nurses in Acute Haematology/Oncology Ward

We would like to invite you to participate in a research study that explores the perspectives and expectations of cancer nursing care amongst patients and registered nurses in an acute Haematology/Oncology ward in Waikato Hospital. The study commenced 1st June 2024 and will finish on 6th July 2025. Before deciding whether to participate in this study, it is crucial that you understand more about the research and what participation entails. In order to assist you in making an informed decision, please read the information sheet attached to the email that has been sent to you carefully. If you would like to participate in this research, your completion of this survey would be regarded as consent to participate.

Thank you

* Required

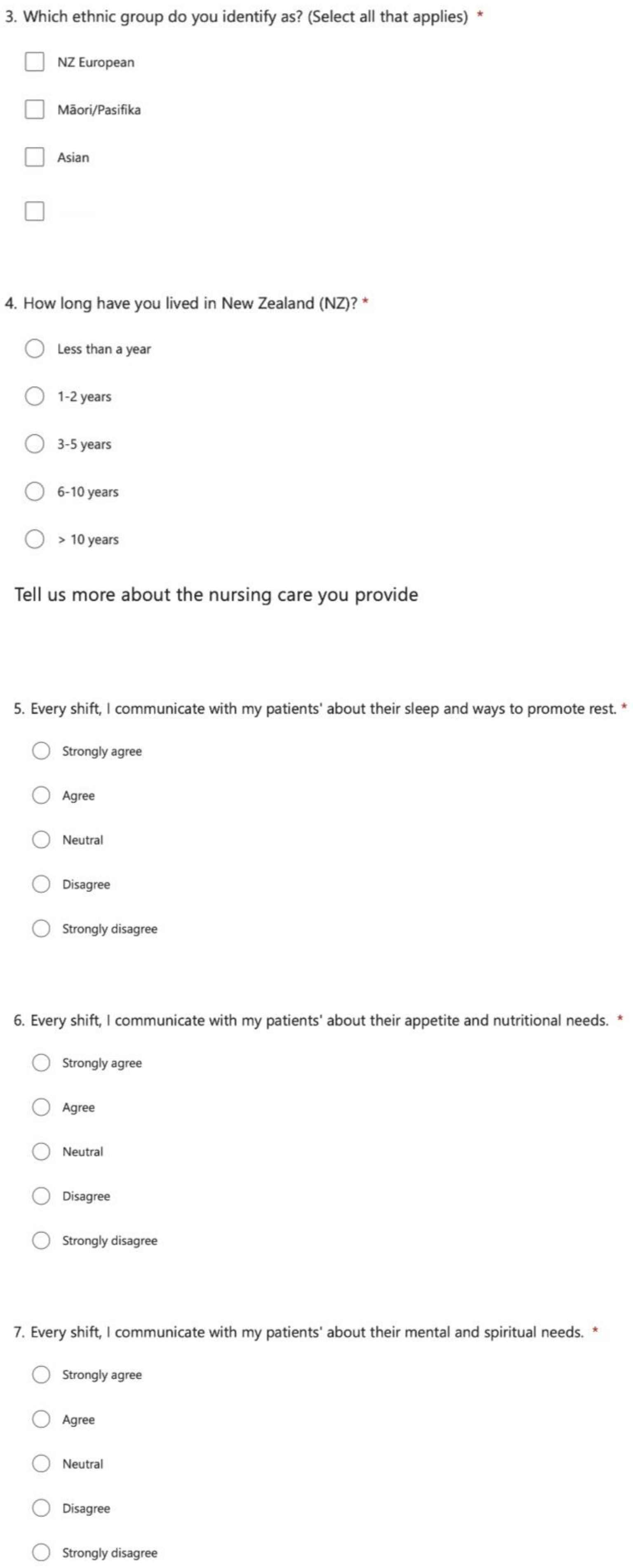
Tell us more about yourself

1. How long have you been nursing? *

○ 1-2 years
○ 3-5 years
○ 6-10 years
○ >10 years

2. Which age group do you belong to? *

○ 20 - 30
○ 31-40
○ 41-50
○ 51-60
○ 60+



3. Which ethnic group do you identify as? (Select all that applies) *

☐ NZ European

☐ Māori/Pasifika

☐ Asian

☐

4. How long have you lived in New Zealand (NZ)? *

○ Less than a year

○ 1-2 years

○ 3-5 years

○ 6-10 years

○ > 10 years

Tell us more about the nursing care you provide

5. Every shift, I communicate with my patients' about their sleep and ways to promote rest. *

○ Strongly agree

○ Agree

○ Neutral

○ Disagree

○ Strongly disagree

6. Every shift, I communicate with my patients' about their appetite and nutritional needs. *

○ Strongly agree

○ Agree

○ Neutral

○ Disagree

○ Strongly disagree

7. Every shift, I communicate with my patients' about their mental and spiritual needs. *

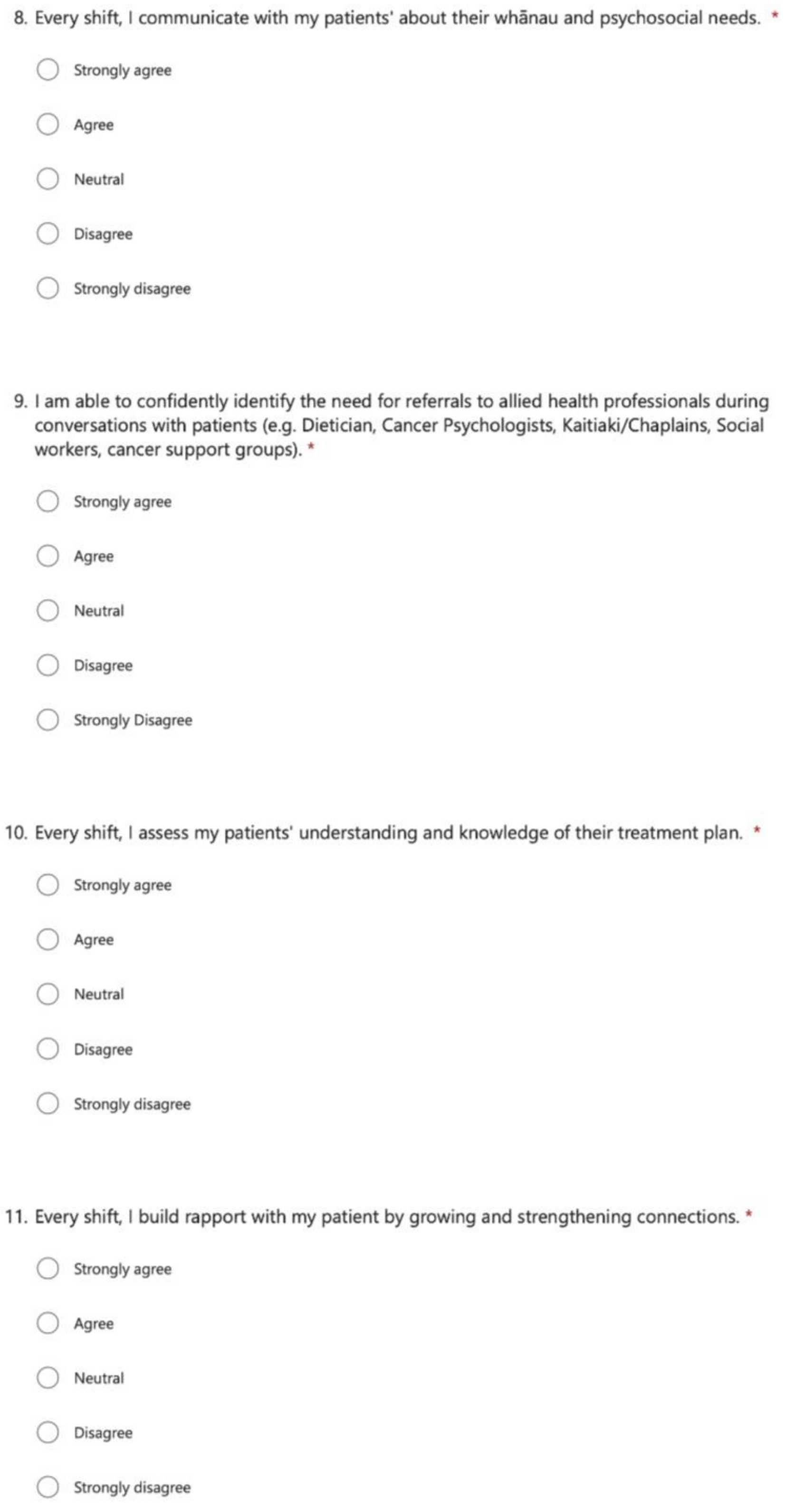
○ Strongly agree

○ Agree

○ Neutral

○ Disagree

○ Strongly disagree



8. Every shift, I communicate with my patients' about their whānau and psychosocial needs. *

○ Strongly agree

○ Agree

○ Neutral

○ Disagree

○ Strongly disagree

9. I am able to confidently identify the need for referrals to allied health professionals during conversations with patients (e.g. Dietician, Cancer Psychologists, Kaitiaki/Chaplains, Social workers, cancer support groups). *

○ Strongly agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

10. Every shift, I assess my patients' understanding and knowledge of their treatment plan. *

○ Strongly agree

○ Agree

○ Neutral

○ Disagree

○ Strongly disagree

11. Every shift, I build rapport with my patient by growing and strengthening connections. *

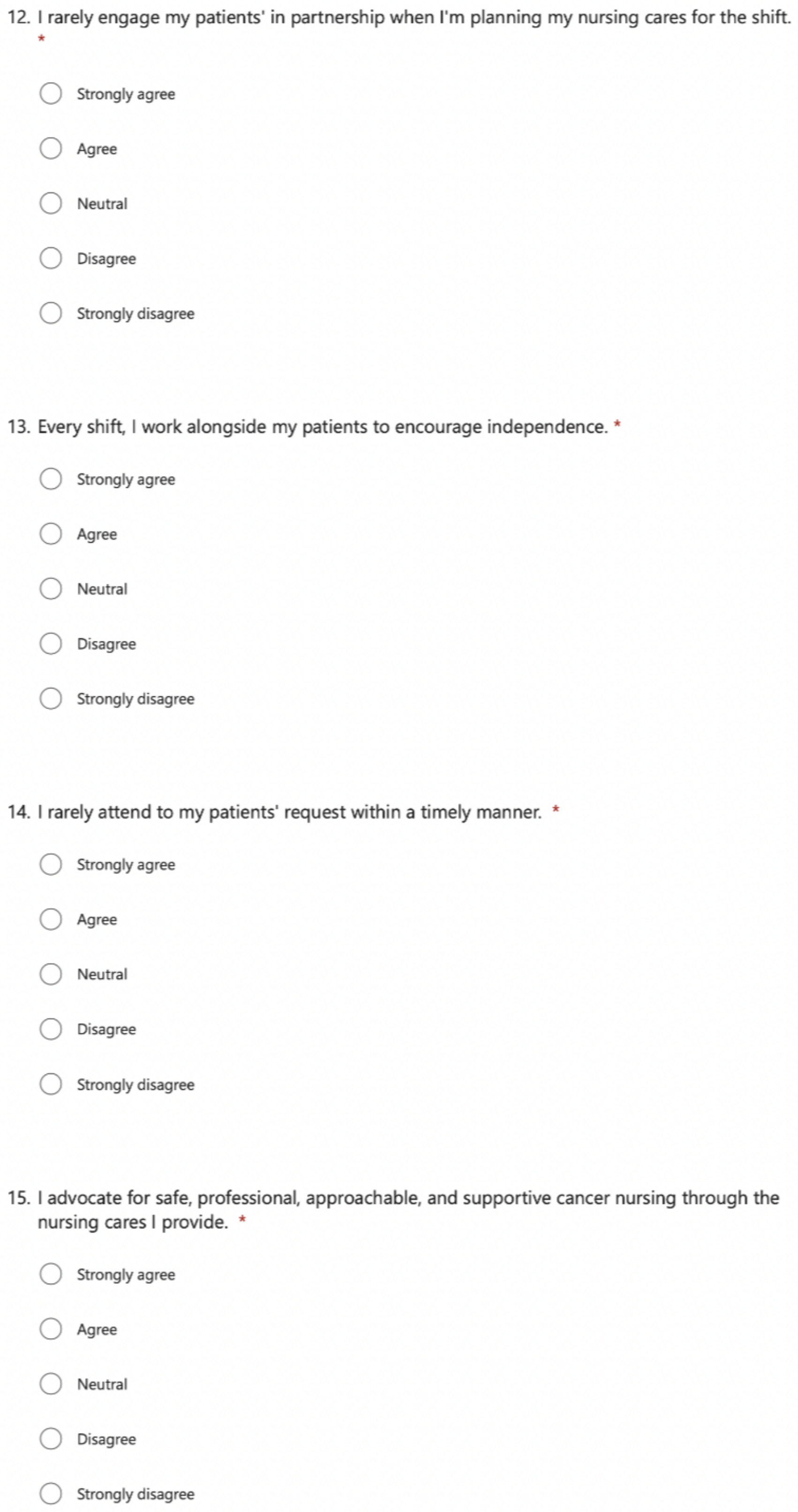
○ Strongly agree

○ Agree

○ Neutral

○ Disagree

○ Strongly disagree



12. I rarely engage my patients' in partnership when I'm planning my nursing cares for the shift. *

○ Strongly agree
○ Agree
○ Neutral
○ Disagree
○ Strongly disagree

13. Every shift, I work alongside my patients to encourage independence. *

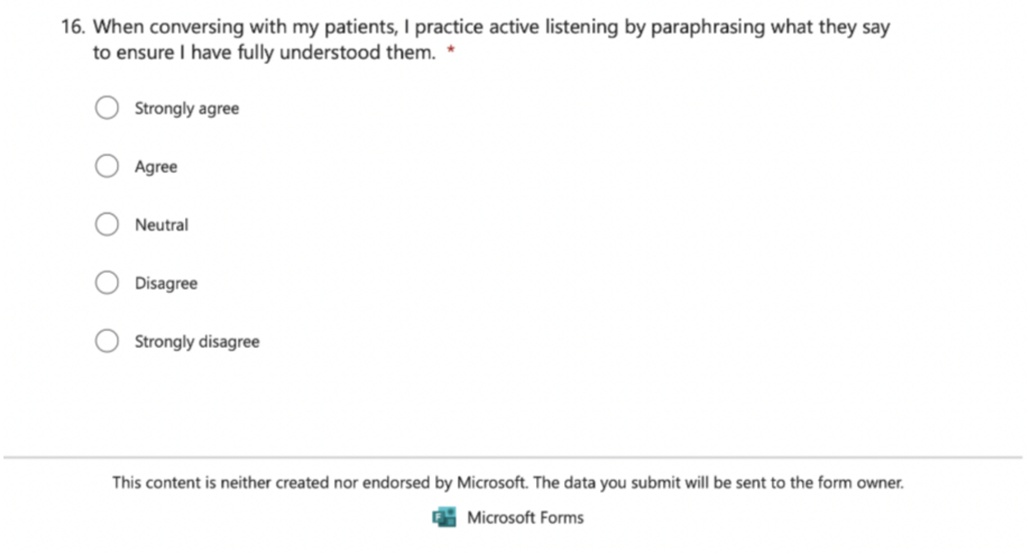
○ Strongly agree
○ Agree
○ Neutral
○ Disagree
○ Strongly disagree

14. I rarely attend to my patients' request within a timely manner. *

○ Strongly agree
○ Agree
○ Neutral
○ Disagree
○ Strongly disagree

15. I advocate for safe, professional, approachable, and supportive cancer nursing through the nursing cares I provide. *

○ Strongly agree
○ Agree
○ Neutral
○ Disagree
○ Strongly disagree



16. When conversing with my patients, I practice active listening by paraphrasing what they say to ensure I have fully understood them. *

○ Strongly agree

○ Agree

○ Neutral

○ Disagree

○ Strongly disagree

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