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Addressing Psychosocial Client Factors in People with Cancer: An Occupational Therapy Guidebook

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Addressing Psychosocial Client Factors for People with Cancer:

An Occupational Therapy Guidebook

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Addressing Psychosocial Client Factors for People with Cancer:

An Occupational Therapy Guidebook

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Abstract

People with cancer experience a variety of physical, cognitive, and psychosocial impacts that affect their quality of life, occupational performance, and occupational engagement. Occupational therapy (OT) practitioners are well-equipped to address these impacts, however, OT is an underused service in the cancer population, resulting in a limited amount of literature addressing OT interventions in cancer care. OT interventions in the literature are focused on addressing an individual's physical client factors. The focus on physical client factors is causing people with cancer to report that their psychosocial client factors are not being addressed. The literature demonstrates that OT practitioners do not have clear OT guidelines within the literature on how to address psychosocial client factors in their clients with cancer. The purpose of this capstone project was to create an OT guidebook to address psychosocial client factors for people with cancer. An OT guidebook was developed to educate OT practitioners on the role and scope of OT in the cancer population. The guidebook consists of four chapters that provide various assessments/screening tools, the goal setting process, interventions to address the identified psychosocial client factors of spirituality, mood, body-image, self-esteem, and cognition, a case example, and additional resources for OT practitioners and their clients. The capstone project document consists of five chapters that address the background, literature review, methodology for developing the guidebook, results, and the discussion. This capstone project will broaden the role of OT in the cancer population by providing OT practitioners with the guidance to address psychosocial client factors which will enhance the occupational engagement, occupational performance, and quality of life for people with cancer.

Keywords: occupational therapy, cancer, psychosocial client factors, occupational participation, occupational engagement

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Chapter 1: Introduction

Background

Cancer and cancer treatment has been shown to cause an increased risk for individuals to experience mental health conditions such as anxiety or depression (O'Hea et al., 2020). Cancer can adversely impact people with cancer both physically and mentally. According to the National Behavioral Health Network (2020), around 25% of cancer survivors experience depressive symptoms, and 45% experience anxiety due to the symptoms decreasing their quality of life.

Impact of Psychosocial Client Factors on People with Cancer

The literature stated that many people with cancer during their entire course of disease experience psychosocial distress (Weis, 2015). Psychosocial distress is defined as a "multifactorial unpleasant experience of psychological (i.e., cognitive, behavioral, emotional), social, spiritual, and/or physical nature that may interfere with one's ability to cope effectively with cancer, its physical symptoms, and its treatment" (Riba et al., 2019, p. 2). Client factors are defined as, "specific capacities, characteristics, or beliefs that reside within the person, group, or population and influence performance in occupations" (American Occupational Therapy Association [AOTA], 2020a, p. 15). There is a large variety of psychosocial client factors, therefore for the relevance of this project, psychosocial client factors are defined based on the most common ones mentioned within the literature. In this context, psychosocial client factors are defined as spirituality, mood, body-image, body-esteem, and cognition (Adler et al., 2008; Chaar et al., 2018; Grassi et al., 2017). Participants in a study were asked to express their top ten needs while undergoing cancer treatment (Newell et al., 1999). Six of the ten items expressed

were psychosocial factors such as coping, frustrations, and anxiety. Cancer can increase a sufferers' psychosocial distress and can impact their psychosocial client factors.

Role of OT in Cancer Care

Occupational therapy (OT) is a service provided to help people with cancer engage in meaningful occupations safely and as independent as possible to increase their quality of life (Pergolotti et al., 2016). In this context, meaningful occupations are things that occupy and individuals time that provide meaning to their life (AOTA, 2020a). Based on the information accumulated during the evaluation process, OT practitioners provide various treatment interventions to address occupations, education and training, advocacy, group interventions, and virtual interventions with a focus on establishing or restoring, maintaining, modifying, and preventing (AOTA, 2020a). Unfortunately, OT has continued to be an underused service with the cancer population; therefore, there is a limited amount of literature present about OT interventions for this population (Pergolotti et al., 2016).

It has been found that there is an increased pressure towards OT practitioners to focus on the biomedical reductionist model when working with people with cancer (Morikawa & Amanat, 2022). This model is focused on what can be done medically for these patients, which is focused more on physical function such as strength and balance to increase the patients' outcomes (Ghaemi, 2015). Physical function is refered to as one's physical ability to engage in occupations (Garber et al., 2010).

A study found that when OT was provided to clients with cancer, the only evaluation tools used by therapists were client self-evaluations to address physical function (Udovicich et al., 2020). When the evaluation process is completed for clients with cancer, OT practitioners are

having a greater focus on the neuromusculoskeletal and movement related client factors rather than addressing the clients' psychosocial client factors and the impact they have on occupation.

Around 90% of OT practitioners reported when working with people with cancer, they are mostly addressing physical impairments as they relate to fatigue and weakness and how that impacts their activities of daily living (Duker & Sleight, 2019). Many OT practitioners have mentioned that they feel confident incorporating physical activities into their interventions for cancer patients, as there is significant evidence in the literature supporting the positive effects of such interventions (Hunter et al., 2017a). The literature stated that exercise is most often used and a beneficial intervention for the cancer population (Albrecht & Taylor, 2012; Henke et al., 2014; Hwang et al., 2008). The literature shown support for physical interventions and its positive impact on physical function such as improvement in engagement in occupations (Taylor, 2018; Morikawa & Amanat, 2022; Udovicich et al., 2020). The literature explained physical interventions to be interventions addressing neuromusculoskeletal and movement related client factors where physical activities such as strengthening, range of motion, and activities of daily living are being completed (Silver & Gilchrist, 2011).

A survey found that 69% of the OT practitioners wished that there was a larger amount of evidence and guidance supporting OT interventions as they relate to the cancer population (Duker & Sleight, 2019). Participation in meaningful occupations has been reported to help client's mental health by allowing them to take more control of their illness, be more hopeful and optimistic (Legault & Rebeiro, 2001). Ulfers and Berg (2017) conducted a survey and found that OT practitioners want to learn more about cancer related cognitive impairments, the impacts it has on their clients, and interventions to address this, but there is still limited knowledge on this due to the lack of resources published. There is limited literature and resources on OT

practitioner's role in working with people with cancer, which is impacting the interventions being provided (Silver & Gilchrist, 2011). The interventions available in the literature are physical interventions addressing neuromusculoskeletal and movement related client factors such, which are leaving this populations psychosocial client factors unmet. Weis (2015), mentioned that there is a lack of knowledge about what types of psychosocial interventions can benefit patients with cancer. Psychosocial interventions are interventions that address spirituality, mood, body-image, body-esteem, and cognition.

Unmet Needs of People with Cancer

Sleight and Duker (2016) reported that OT practitioners typically focus on physical interventions when working with people with cancer, but the clients reported the need for more psychosocial interventions. Psychosocial interventions address a clients psychological, behavioral, and social strategies. Healthcare workers and individuals with depression were found to have different viewpoints on the most important symptoms to address (Christensen et al., 2020). Patients believed that cognitive and emotional symptoms are the most important symptoms to address, where healthcare workers believed that physical symptoms are the most important (Christensen et al., 2020).

Impact on Occupation

Cancer can negatively impact an individual's quality of life and functional outcomes (Adcock & Burke, 2014). Mental health conditions can significantly impact one's engagement in meaningful occupations and occupational performance; a study found that individuals who experience depressive symptoms are less likely to participate in meaningful occupations (Maruta et al., 2020). OT practitioners help individuals to participate in meaningful occupations to increase their quality of life. Cancer can affect occupational performance, which can inhibit one's

engagement in meaningful occupations and quality of life (Sleight, 2017). Psychosocial distress may impact an individual's body esteem (Heidari & Ghodusi, 2015). Poor body esteem has been found to negatively impact social interaction and when positive body-esteem was identified, it was found to increase an individual's mental health and social interactions (Heidari & Ghodusi, 2015). A depressive mood can impact psychosocial factors and quality of life by causing an individual to have a lower spirit or mood to the point where they may feel heavy or down and not wanting to engage in occupations (Christensen et al., 2020; Kanter et al., 2008). Participants in a study mentioned wanting help to manage their psychosocial distress as it is a barrier to their engagement in meaningful occupations (Newell et al., 1999). When asked which psychosocial distresses had the largest impact on their engagement in occupations, anxiety and depression were the most reported (Newell et al., 1999). Individuals that have depression are more likely to have a decreased quality of life due to less engagement in meaningful activities (Steger & Kashdan, 2009). Engagement in meaningful occupations has shown an improvement in the quality of life for individuals with cancer (Petruseviciene et al., 2018). By encouraging an individual to engage in meaningful occupations their depressive and anxious symptoms are more likely to improve (Steger & Kashdan, 2009).

Model to Guide Project

The Model of Human Occupation (MOHO) incorporates the client's interaction with their environment using occupational performances and the use of inputs and outputs (Pawar et al., 2017). MOHO consists of three main components with three subsystems within those components: person, environment, and occupation, while the subsystems consist of volition, habituation, and performance capacity (Taylor, 2017). By identifying each of these aspects of their clients, OT practitioners will be able to gage a holistic picture of their clients and provide

psychosocial interventions. A holistic approach to addressing this population is looking at their medical, physical, and psychosocial needs (Singer et al., 2009; Sleight and Duker, 2016). MOHO was found to be the best model to use during adult cancer interventions due to its strong validity (Désiron et al., 2013).

Therapists can provide physical interventions such as strength, range of motion, and activities of daily living training, as well as psychosocial interventions such as cognitive strategies, lifestyle management, and mental and physical health fatigue education. Those will help the client increase their quality of life and their engagement in meaningful occupations (Longpré & Newman, 2011). After a cancer diagnosis, it is common for individuals to undergo a role and self-identity change (Kuswanto et al., 2018). OT practitioners in the mental health setting reported MOHO and the MOHO screening tool to be useful tools to understand their patient's needs and increase services for clients (Bugajska & Brooks, 2021; Lee et al., 2012).

The use of MOHO assessments allows OT practitioners to understand what each specific individual values and their roles which will allow them to address these values throughout treatment. It will help OT practitioners address the client's psychosocial client factors by having these individuals engage in roles and occupations they once valued. In a study, MOHO was used on breast cancer survivors to help OT practitioners identify goals in all areas of life, allowing them to look at the patient holistically (Désiron et al., 2013). MOHO allows OT practitioners to understand why people have certain lifestyles and how they live these lifestyles. It is the best model to use for this population because it takes individuals values and things that motivate them which will help increase a client's mental health and decrease their psychosocial distress by helping them engage in occupations they value most to get back to living their lifestyles. Psychosocial client factors look at spirituality, mood, body-image, body-esteem, and cognition

which are all factors that influence a person's motivation to engage in occupations (AOTA, 2020a). MOHO is focused on what motivates their clients, therefore, this is the best model to use to address psychosocial client factors. A study found that formal MOHO training for OT practitioners in cancer rehabilitation has shown a positive response in their patient's outcomes (Bowyer et al., 2019). Other models do not fit as well as MOHO because those models look at things such as function, environment, etc. MOHO takes the important parts of other models and combines them to look at the client more holistically. Unlike other theories, MOHO identifies what motivates their clients to keep them engaged during OT sessions.

Statement of Problem

OT practitioners do not have clear OT guidelines within the literature on how to address psychosocial client factors in their clients with cancer.

Purpose Statement

The purpose of this project was to create an OT guidebook to address psychosocial client factors for people with cancer.

Problem Rationale

This project was conducted because people with cancer have psychosocial client factors that impact their engagement in meaningful occupations, but OT practitioners are less likely to address them due to a lack of familiarity from the literature supporting interventions to address the psychosocial client factors in people with cancer. OT practitioners are more likely to address physical body structures and body functions for their clients with cancer due to the supporting literature for these physical interventions and less likely to address psychosocial client factors that impacts their engagement in meaningful occupations. People with cancer are susceptible to experience anxiety and depression, therefore it is important to not only address physical client

factors but also psychosocial client factors. The lack of guidance and familiarity on addressing psychosocial client factors in people with cancer is impacting OT practitioners' confidence and comfortability.

Project Significance

The OT guidebook provides OT practitioners with the needed resource to serve their clients and provide psychosocial support throughout their sessions to help the client engage in meaningful occupations. An OT guidebook provides OT practitioners with a guided resource to help guide their interventions for clients with cancer. Individuals with cancer that do receive rehabilitation services are typically only receiving physical interventions. The guidebook helps to improve patients' quality of life by addressing their psychosocial client factors in addition to their neuromusculoskeletal and movement needs which will increase their engagement in meaningful occupations and quality of life (Duker & Sleight, 2019). The guidebook positively impacts OT practitioners by providing them with a resource that is not just focused on physical interventions, which will increase their OT toolbox and confidence in treating this population. OT practitioners will further understand their role in working with people with cancer and how to support their client's needs to provide holistic care by addressing their clients with cancer psychosocial client factors, not just their physical impacts.

Creating an OT guidebook on how to serve this population increases the support for the clients both physically and mentally by addressing their psychosocial client factors in their OT sessions. The psychosocial client factors addressed in the guidebook are spirituality, mood, body-image, body-esteem, and cognition. By addressing these psychosocial client factors, it increases people with cancers quality of life and engagement in the occupations they value. The guidebook provides OT practitioners with the resources to treat this population holistically. This

will help with mental health promotion for their clients, which will, in turn, promote engagement in meaningful occupations because of the increase in psychosocial interventions. OT practitioners will use this guidebook as a resource to address the psychosocial needs of their clients through participation in meaningful occupations which will help these clients improve their mental health conditions.

Capstone Project Objectives

Learning Objectives

- Evaluate meaningful occupation-based and occupation-focused interventions and the effect they have on the improvement of the psychosocial distress of individuals with cancer
- Examine current psychosocial interventions for individuals with cancer
- Evaluate the organization and production of an OT guidebook
- Apply OT guidebook methodologies to my capstone project
- Identify current OT interventions presented in literature used with the cancer population
- Analyze the use of the Model of Human Occupation in the creation of an OT guidebook

Outcome Objective

- Create an OT guidebook to address psychosocial client factors for people with cancer

Assumptions, Limitations, and Delimitations

It was assumed that OT practitioner's role in addressing psychosocial client factors with their clients with cancer was underdeveloped due to the lack of resources in the literature. It was assumed that OT practitioners need an OT guidebook to guide their interventions for their clients with cancer. It was assumed that OT practitioners wanted a resource to guide their interventions and that they will seek out the guidebook to help guide their interventions. It was assumed OT

practitioners will use the guidebook within their practice while working with people with cancer. Lastly, it was assumed that when OT practitioners used the guidebook, it would positively impact the people with cancers psychosocial needs and increase their occupational participation and performance.

There were some proposed limitations identified with this capstone project. The first potential limitation was a time constraint with creating the guidebook. Another limitation was the limited research and guidance on OT in the cancer population due to this population being an emerging practice.

Some delimitations that were identified were my project objectives, as they were obtainable throughout my capstone and ensured that I did not expand too far to where my project is unable to be completed. The project literature search was limited to the treatment of people with cancer, but no limit to just the field of OT. Due to limited literature, I explored literature in other domains such as physical therapy and nursing to expand my understanding of this population. The creation of the guidebook focused on OT to address psychosocial client factors in the treatment of people with cancer.

Chapter 2: Literature Review

Purpose

The purpose of this review was to identify the current literature on cancer, the secondary impacts it has on the body, how it affects occupation through the lens of MOHO, reported unmet needs from the cancer population, the current role of OT in cancer care, what OT practitioners can do to address psychosocial client factors, and the development of the OT guidebook through the lens of MOHO.

Cancer

Cancer is a group of abnormal cells with uncontrolled growth and spreading that impacts an individual's life and may cause death if not treated (American Cancer Society, 2022). In the year 2023, it is projected that over 1.9 million new cancer cases will be developed within the United States (Siegel et al., 2023). Individuals in treatment and survivorship are at risk for developing occupational performance impairments due to physical and psychosocial impacts that the cancer and treatment has had on them (Duker & Sleight, 2019; Pergolotti et al., 2016; Polo & Smith, 2018). Cancer treatment most commonly impacts an individuals' quality of life due to increased fatigue, cognitive impairments, functional status, pain, lymphedema, psychosocial support, emotional distress, and neuropathy (Baxter et al., 2017; Duker & Sleight, 2019; Matzka et al., 2016; Pergolotti et al., 2020).

The physical and psychosocial impacts treatment has on individuals affects their engagement in meaningful occupations (Maher & Mendonca, 2018; Sleight & Duker, 2016). Since the COVID-19 pandemic, individuals undergoing cancer treatments have shown a notable increase in emotional distress as it relates to the availability of receiving treatment and the uncertainty of their own health status during the spread of the virus which has shown an increase

in this population's anxiety and depression levels (Hamlish & Papautsky, 2022; Toquero et al., 2021). In a study, a hospital anxiety and depression scale was conducted on individuals with breast and lung cancer, the scale found participants to have an emotional distress rate of 42.5% with anxiety at 36.5% and depression at 45%. In the first wave of the COVID-19 pandemic, the number increased to an emotional distress rate of 52.8% with anxiety at 42.3% and depression at 58.6% (Toquero et al., 2021).

OT in cancer care is underexplored due to the lack of resources present to support this profession within this population (Baxter et al., 2017; Duker & Sleight, 2019; Pergolotti et al., 2014). A study found that within 2 years of their cancer diagnosis, 32 % of individuals received OT services (Pergolotti et al., 2014). One third of individuals with cancer report having limitation with their engagement in activities of daily living (ADLs) and instrumental activities of daily living (IADLs) due to their cancer treatment which is impacting their quality of life (Pergolotti et al., 2016). OT practitioners are well equipped and trained to address these impairments to help increase their patients' psychosocial supports and quality of life (Baxter et al., 2017; Hunter et al., 2017a; Pergolotti et al., 2016).

Common Impacts of Cancer and Cancer Treatment on Person

Physical Impacts

The physical impacts people experience due to cancer treatments may vary depending on the type of cancer and how it fluctuates over time. The most common physical symptoms experienced are fatigue, sleep disturbances, pain, nausea and/or vomiting, weakness, neuropathy, skin rashes, and lymphedema (Aziz, 2007; Rowland & Bellizzi, 2008). Brearley (2011) mentioned that after being diagnosed with cancer, adults are more likely to have comorbidities which also have a large impact on physical function. Individuals with cancer are at higher risk

for developing impaired physical function from the cancer and the cancer treatment (Granger et al., 2014; Kenis et al., 2017; Muhandiramge et al., 2022). Patients often report a symptom burden of exercise intolerance, and physical deconditioning after receiving cancer treatment (Silver et al., 2013). The management of cancer can have a significant impact on an individual's physical functioning, potentially affecting one's ability to engage in daily activities and the various treatments used for cancer can cause side effects that may compromise physical function. The effects of cancer and cancer treatment extends beyond the physical impacts, with it also having a significant cognitive impact.

Cognitive Impacts

Up to 75% of individuals undergoing cancer treatment experience cancer-related cognitive impairments (CRCI) where they experience a change in areas such as memory, executive function, and attention (Hardy et al., 2018). This is also known as 'chemobrain' or 'chemofog' (Boykoff et al., 2009; Moore, 2014). Neuropsychological tests are considered the gold standard for assessing cognitive function (Von Ah & Tallman, 2015). Neuropsychological tests measure the brain connections related to an individual's psychological functioning (Von Ah & Tallman, 2015). Studies have shown that people with cancer performed poorer on the neuropsychological tests compared to individuals with the same demographics without cancer (Jansen et al., 2011; Jim et al., 2012; Stewart et al., 2006). People with cancer performing poorer on the neuropsychological tests, it shows that cognitive function is being impacted by the cancer and cancer treatment. Cognitive changes are a common impact that individuals experience from their cancer and cancer treatment. Cancer and cancer treatments has also been noted to impact an individual psychosocially.

Psychosocial Impacts

Due to cancer and cancer treatments, a study found that cancer survivors are more likely to experience psychosocial distress such as increased risk for mental health conditions and decreased quality of life (Naughton & Weaver, 2014). People with cancer may not be diagnosed with a mental health condition after their cancer diagnosis, but may still experience worries, fears, anxiety, mood disturbances and other forms of psychosocial distress (Adler et al., 2008). Mitchell (2007) found that cancer patients sometimes experienced suicidal thoughts but kept these thoughts from family members to decrease family related stress and burden. The emotional distress that may be experienced by an individual with cancer can be so serious that it may lead to suicidal thoughts. Throughout the cancer treatment process, individuals may experience and increase in psychosocial distress, but may not bring it up to their physicians, causing the distress to persist past the cancer treatment stage (Kangas et al., 2002; Wilson, 2020). Individuals may experience psychosocial distress during and after their cancer treatment but may not seek out help for this distress.

Theoretical Model Framing OT Guidebook: Model of Human Occupation

MOHO looks at how a person and their environment connects to and impacts occupational engagement (Taylor, 2017). The three subsystems of a person are volition, habituation, and performance capacity (Taylor, 2017). Volition is the motivation an individual has to engage in certain occupations which is determined by the individual's interests, values, and personal causation (Taylor, 2017). Interests are what a person enjoys or is passionate about, values are what a person believes is important, and personal causation looks at a person's perception of their ability to perform an occupation and make choices or decisions (Taylor, 2017). Habituation is the routine of occupations influenced by habits, roles, and patterns (Taylor, 2017). Habits are repetitive or automatic parts of an occupation, roles are positions or identities a

person holds, and patterns sequences of activities that make up a person's life (Taylor, 2017). Performance capacity has mental and physical abilities where mental is the persons self-perception of their ability to complete and occupation and physical is a person's physical ability to complete an occupation (Taylor, 2017). Environment plays a large role in MOHO with physical, social, and occupational contexts impacting it (Taylor, 2017). One's environment can support or hinder their engagement in meaningful occupations depending on the situation (Taylor, 2017). Environment is very important to take into consideration when working with different clients as each person experiences a different environment. Each individual is different; therefore, the impacts cancer and cancer treatment have on each person may vary, but Table 1 analyzes the constructs of MOHO on the ideal situation compared to a person with cancer.

Common Impacts of Cancer and Cancer Treatment on Occupation

Physical Impacts on Occupation

Due to the physical impacts cancer and cancer treatments have on individuals, adults with cancer are more likely to require assistance with activities of daily living (ADL) in comparison to individuals of the same demographics without cancer (Kenis et al., 2017; Muhandiramge et al., 2022; Yabroff et al., 2004). ADLs consist of occupations focused on self-care such as bathing, toileting, dressing, feeding, and personal hygiene (AOTA, 2020a). Cancer and cancer treatment can have significant physical impacts on an individual such as fatigue, sleep disturbances, pain, nausea and/or vomiting, and weakness which can compromise an individual's ability to engage in ADLs independently. In a study, individuals with lung cancer reported a decrease in their physical activity due to weakness from the cancer treatment and increase in a depressed mood (Granger et al., 2014). When an individual is experiencing weakness from their cancer treatment their performance capacity may be impacted. Their physical abilities may not

allow them to engage in certain occupations and they may also have a decreased self-confidence in their ability to engage in an occupation. Neo et al. (2017), completed a systematic review on adults with cancer where of the 43 studies, the most common ADLs impacted were personal hygiene and transfers. The review found that the most common ADLs impacted were the ones that required an increase amount of physical functioning (Neo et al., 2017). Cancer and cancer treatment leaves physical impacts that affect one's ability to complete physical tasks, impacting their performance capacity. The impacts cancer treatment has on the physical functioning of individuals has shown to impact individuals' participation and meaningful occupations.

Cognitive Impacts on Occupation

People with cancer reported socialization and participation in work to be more difficult due to the cognitive impacts of cancer treatments (Von Ah & Tallman, 2015). A study found that women with breast cancer experienced cognitive changes that impacted their productivity at work and their memory on task completion (Downie et al., 2006). The cognitive impacts cancer treatment has on areas such as memory, processing speeds, and attention all may negatively impact in a person's social participation and work due to the feeling of looking 'stupid' (Downie et al., 2006). If someone is worried about how they may look to their peers during social participation, it means that the social context of the environment is being impacted. That individual may not feel that can meet the demands of their environment. Their performance capacity is also being impacted as they may not feel confident in their communication ability and may avoid these interactions or avoid going to work. If an individual avoids going to work their roles will change and they may no longer identify with a position at that company. The cognitive impacts a person with cancer experiences may affect their quality of life and their ability to return to work, ADLs, and other meaningful occupations.

Psychosocial Impacts on Occupation

A study found that many of the participants with cancer felt low and did not feel themselves, which caused them to isolate themselves and not participate in as many meaningful occupations (Mitchell, 2007). Through a series of semi-structured interviews, patients with cancer discussed the impacts cancer had on their meaningful occupations with some stating they could no longer take their children to school, cook meals, or take their dog on a walk (Pederson et al., 2013). Each of these individuals reported experiencing a lack of control and decreased self-esteem (Pederson et al., 2013). The change in ability to take their children to school, cook meals, or take their dog on a walk impacts an individual's role as they may not be able to maintain the expectations that come with being a mother or owning an animal due to the impacts of cancer and cancer treatments. Cancer can leave people with overwhelming emotions such as anxious or depressive moods to the point where it impacts the completion of everyday activities (Wilson, 2020). The psychosocial distress one may feel while going through cancer treatment can impact their participation in meaningful occupations. It is important to address these psychosocial client factors to promote participation in these meaningful occupations.

When looking at the psychosocial client factors for people with cancer, it is important to understand that the client factors are not what is directly impacting occupational engagement, but they are impacting the subsystems of the person. A cycle has been identified addressing the psychosocial client factors impacting a person with cancers engagement in meaningful occupations: (i) after a cancer diagnosis, an individual may experience anxious or depressive moods; (ii) individual may avoid or decrease participation in meaningful occupations due to emotional distress; (iii) the decreased engagement in meaningful occupations is further impacting their mood as they are not doing things that they value; (iv) the value they have on

their lives and on themselves may decrease; (v) they start to focus on more of the negative things in life; (vi) the individual experiences emotional distress and may potentially develop depression or anxiety causing the cycle to repeat itself (Hirayama et al., 2019). The cycle correlates with MOHO as it looks at what a person values and when that is impacted by psychosocial client factors such as anxious or depressive moods, the person loses motivation to engage in those occupations which may impact their roles and routines.

Role of OT in Cancer Care Based on the Literature

Common OT Evaluation Tools to Address Client Factors in Cancer Care

Assessments are used to help OT practitioners understand what is impacting an individual's participation in meaningful occupations such as their physical functioning, cognitive functioning, and psychosocial functioning (Pergolottiet al., 2016). In the literature, when cancer care is being addressed, quality of life is analyzed as it relates to physical function (Ferrer et al., 2011; Hwang et al., 2008; Maher & Mendonca, 2018; Wanchai et al, 2011). In multiple studies, quality of life assessments and surveys were given after patients completed physical activity programs (Ferrer et al., 2011; Hwang et al., 2008; Maher & Mendonca, 2018). With quality of life being assessed after physical activity it shows that in the literature, the assessments are analyzing quality of life based on physical function rather than using assessments to address the patient's psychosocial client factors. Silver et al. (2013), reports that the top priority of the cancer rehabilitation process should be to screen for physical impairments. The information in the literature prioritizing screening for physical impairments supports that OT practitioners are predominately focusing on the physical functioning of an individual during the evaluation process. Table 2 shows the current evaluation tools mentioned within the literature that OT practitioners often use when working with people with cancer. As shown in Table 2, the

commonly used evaluation tools identified within the literature do not assess the psychosocial client factors that OT practitioners could be using to look at their client holistically.

Common OT Cancer Interventions to Address Client Factors

Mental Functions

Exercise was found to help address psychosocial distress in people with cancer (Rogers et al., 2017; Spence et al., 2010). Yi and Syrjala (2017) found that people with cancer experienced decreased anxious and depressive moods after completing physical activity. Exercise was also found to increase people with cancers quality of life (Beaton et al., 2009; Cormie et al., 2013; Zhu et al., 2016). Exercise is supported in the literature to help decrease psychosocial distress in people with cancer. OT practitioners are more likely to use this intervention for their patients with cancer because of the support in the literature and its ability to address multiple different client factors through one intervention.

Psychosocial strategies such as cognitive behavioral and educational interventions were found to help reduce anxious and depressive moods (Chien et al., 2014). Braveman and Newman (2020) provided vague examples of psychosocial interventions for people with cancer which were encouragement to participate in meaningful occupation, physical activity, psychoeducation for patients and their families, distress screening, and support groups. These interventions may be effective but lacked specific details on what specifically OT practitioners could do for patients. Having broad examples of interventions is impacting the service delivery of OT to people with cancer, as OT practitioners are lacking familiarity in interventions to address psychosocial client factors in people with cancer.

Sensory Functions

Pain is one of the most common symptoms experienced by cancer and cancer treatment, with 75% to 90% of people with cancer reporting the pain impacting their participation in daily activities (Bao et al., 2016). Cancer related pain is a different kind of experienced pain from non-cancer patients where it is considered an unpleasant sensory experience (Swarm et al., 2019). Therapeutic exercise, more specifically isometric contractions, in conjunction with other interventions has been found to help decrease a patients amount of pain (Cheville & Basford, 2014). Deep breathing exercises have also been found to help decrease reported pain levels (Hunter et al., 2017a). The psychosocial impacts of pain were also identified with recommendations for cognitive-behavioral and education interventions to address these psychosocial impacts (Braveman & Newman, 2020). The literature was focused on addressing pain through therapeutic exercise where specific examples were provided, but the examples of psychosocial interventions were again broad and did not provide OT practitioners with detailed interventions.

Neuromusculoskeletal and Movement Related Functions

Multiple studies found exercise to be a safe and beneficial intervention for different cancer types (Albrecht & Taylor, 2012; Baumann et al., 2012; Henke et al., 2014; Hwang et al., 2008). Other articles also found exercise to be effective in addressing muscle tone and strength for people with cancer (Granger et al., 2011; Keogh & MacLeod, 2012). The two most common types of therapeutic exercise used with people with cancer are aerobic training such as cycling and walking, and resistance training such as weightlifting and one's own body weight (Rajarajeswaran. & Vishnupriya, 2009). A common trend within the literature addressing people with cancer were focused on the neuromusculoskeletal and movement related client factors to improve performance capacity and participation in occupations. Due to the supporting literature

and reports from people with cancer, it is common that physical interventions such as aerobic exercise and resistance training are commonly being used during OT treatment when working with people with cancer.

Cardiovascular, Hematological, Immune, and Respiratory System Functions

Around 30% to 60% of cancer patients undergoing treatment will experience cancer related fatigue (CRF) (Bower, 2014). CRF has a negative impact on an individual's engagement in daily activities, work, mood, relationships, and quality of life (Bower, 2014). Studies found that exercise for individuals receiving cancer treatments helped decrease CRF (Bower, 2014; Hunter et al., 2017a; Wanchai et al, 2011). A systematic review analyzed 15 randomized controlled trials looking at the effects exercise has on CRF (Cataldi et al., 2021). 13 of the trials found improvements on the patients CRF when participating in exercise (Cataldi et al., 2021). Physical activity is a common OT intervention when addressing CRF as the literature has shown that it helps to decrease CRF in cancer patients (Bower, 2014; Cataldi et al., 2021; Hunter et al., 2017a; Wanchai et al, 2011).

Body Structures

Lymphedema is a common symptom caused by cancer treatment. Lymphedema is an inflammatory condition which causes damage to the lymphatic system (Chaput et al., 2020). The two most common OT interventions as they relate to lymphedema for cancer patients are physical activity and bandages (Braveman & Hunter**,** 2017). OT practitioners can assist with education and applying compression bandages, as multiple studies found these treatments to be effective with lymphatic volume control for patients with lymphedema (Devoogdt et al., 2010; King et al., 2012). Exercise has also been found to help with range of motion without exacerbating lymphedema (Chan et al., 2010; McClure et al., 2010). Exercise is reported to be

the most common treatment OT practitioners feel comfortable using to help manage lymphedema for clients with cancer (Braveman & Hunter**,** 2017).

Common Trends to Addressing OT Client Factors in People with Cancer

Many interventions addressed above do not directly support OT because they were studies done by other professions, instead, they are successful interventions supported by the literature within the scope of OT's practice. The interventions mentioned were supported within the scope of OT through Braveman and Hunter (2017) *Occupational therapy practice guidelines for cancer rehabilitation with adults* and Braveman and Newman (2020) *Cancer and occupational therapy*. There is a limited amount of literature on OT in cancer care (Braveman & Hunter, 2017). Most of the interventions provided were broad and vague, rather than providing the audience with more detail, it broadly explained what could be done. A majority of the explanations were related to addressing physical function in people with cancer.

There were a few common trends found within the literature. Most of the articles in the literature that discussed OT's role in cancer care, focused on physical interventions for addressing quality of life, functional status, emotional distress, CRF, and lymphedema. Most cancer studies focused on the disease related outcomes rather than the impact on the client holistically (Muhandiramge et al., 2022; Neo et al., 2017). Physical interventions were found to be beneficial, but according to the unmet needs reported by people with cancer, other areas of the patients' lives need to be addressed to look at the patients' holistically. Another trend found in the literature is that there is a lack of articles about OT in cancer care. Most of the articles focused on nursing and psychology serving this population rather than the role of OT. Breast cancer was the most common cancer within the literature in regards to OT based articles and various other disciplines. A systematic review found that the two major gaps found in the

literature were that most studies were not specific about participation in meaningful activities and there is only a small amount of literature that address OT interventions (Hunter et al., 2017b).

Reported Unmet Needs of People with Cancer

Multiple cancer survivors reported not receiving services to address their psychosocial needs such as mood and cognition (Adler et al., 2008). In three separate articles, with two of them directly related to OT services, people with cancer mentioned that they did not feel their cognitive and psychosocial symptoms were being addressed (Mitchell, 2007; Pergolotti et al., 2016; Player et al., 2014). Taylor and Currow (2003) mentioned that people with cancer are reporting unmet healthcare needs which are interfering with their participation in meaningful occupations. The literature is showing that there is an area of psychosocial needs that are being neglected in the services being provided for people with cancer. When referring to anxiety, depression, and quality of life, Braveman and Hunter (2017) mention that OT practitioners are well equipped to address psychosocial client factors for people with cancer to help increase their quality of life and engagement in meaningful occupations.

Topics Within the Scope of OT Not Currently Being Addressed

The information in this section has been analyzed through the lens of MOHO to guide the evaluation process, intervention process, and outcomes. Common psychosocial client factors impacting cancer patients within the literature are changes in spiritualty and values, mood disturbances such as anxiety or depression, concerns about body image, self-esteem, and cognition (Adler et al., 2008; Chaar et al., 2018; Grassi et al., 2017). These psychosocial client factors will be what guides the evaluation process and intervention process presented in this section.

OT Evaluation Tools That Address Psychosocial Client Factors

During the evaluation process, it is important to complete a variety of assessments with the client to ensure a developed understanding of their needs are identified in order to create goals and individualized treatment plan (Braveman & Newman, 2020). The information presented below are to address psychosocial client factors for people with cancer. It is important to still assess and provide other interventions for all client factors not just the psychosocial ones in order to address the client holistically.

Values, Beliefs, and Spirituality

After being diagnosed with cancer, it is common for an individual's spirituality and personal values to change (Grassi et al., 2017). The person may have a changed concept on the meaning of their life and existence (Grassi et al., 2017). During the evaluation process, Koenig (2004) recommends obtaining information about spirituality, values, and beliefs during the occupational profile. Three questions that can be asked during the evaluation process are: if the individual is coping with their illness through spirituality, do they have a valued community to help the through this time, and do they hold beliefs that may affect treatment preferences (Koenig, 2004). Below, Table 3 shows assessments and screening tools that can be used to assess values, beliefs, and spirituality for people with cancer.

Mental Functions

It is important for OT practitioners to screen for psychosocial distress as this can largely impact an individual's engagement in meaningful occupations (Braveman & Newman, 2020). After screening for psychosocial distress during the evaluation process, it is important that OT practitioners initiate a discussion about the ways in which the psychosocial distress may be hindering the individual's ability to participate in meaningful occupations which can be done

while completing an OT profile (Braveman & Newman, 2020). Screening for psychosocial distress is very important because a practitioner may not know if their client is experiencing distress until being screened or the level of distress may be concealed out of fear it may further influence treatment options (Sansom-Daly & Wakefield, 2013). Table 4 shows some assessments and screening tools that can be used to analyze mental functions as they relate to emotion, body-esteem, cognition, and communication for people with cancer.

OT Intervention Techniques That Address Psychosocial Client Factors

Psychosocial interventions are more suitable to address emotional, spiritual, and cognitive distress to improve occupational outcomes (Boggero et al., 2017). It is important to keep in mind that many of the interventions below address more than one area of psychosocial client factors and can overlap in different areas. Some of the interventions presented are occupation-based because they are addressing the client factors impacting the individual's ability to engage in meaningful occupations (Fisher, 2013). Some of the interventions will address the client factors to help their clients engage in meaningful occupations. Some of the other interventions are more occupation-focused because they are focusing on meaningful occupations and setting goals for clients to work towards improving their satisfaction and performance on these occupations (Fisher, 2013).

Cognitive Behavioral Therapy Techniques

Cognitive behavioral therapy (CBT) techniques are a common treatment found in the literature for cancer patients. A systematic review looking at psychosocial interventions of people with cancer found 20 out of the 68 articles found CBT techniques to be the most commonly used intervention (Teo et al., 2019). In this review, the most common interventions used with CBT techniques were activity planning, coping skills, mindfulness training, problem-

solving, and goal setting (Teo et al., 2019). CBT techniques address a more effective way of coping by altering negative attitudes (Sutanto et al., 2021). A study conducted with 36 cancer survivors diagnosed with major depressive disorder found that CBT interventions helped decrease these individual's depressive symptoms (Brothers et al., 2011). CBT techniques are a good nonpharmacological treatment to aid in symptom management after a cancer diagnosis (Lee et al., 2011).

Meaning Making Techniques

Meaning making is a technique utilized to help people make sense of what is happening and creating an area for growth to ease negative psychological, spiritual, and quality of life feelings (Park, 2022). A qualitative study found 86.95% of women with breast cancer experienced spiritual growth after finding meaning behind their experience with cancer (Fallah et al., 2012). A scoping review found some of the most common OT interventions utilizing meaning making techniques were formulating personal goals, discussing meaningful daily occupations, creating memory books, creating artwork, and group sessions discussing values (Mello et al., 2021). Meaning making techniques are great interventions for OT practitioners to utilize because they help foster the conversation of meaningful occupations and help the client identify what they value and find meaningful in their life (Ikiugu & Pollard, 2015). Park (2022) identifies two kinds of meaning, global meaning and situational meaning. Global meaning is an individual's general comprehension of how the universe works, personal identity, religion, and sense of purpose and situational meaning is ones understanding of the meaning of specific life events such as an illness (Park, 2022). Both kinds of meaning are essential in understanding an individual's values, beliefs, and motivations (Mello et al., 2021). With these being importation part of MOHO, this intervention will continue to promote the use of the MOHO lens when

addressing psychosocial client factors in people with cancer. Meaning making enhances the well-being of individuals with cancer through reflection and reintegration to decrease emotional distress and increase self-perception, spiritual well-being, and quality of life (Wang et al., 2017).

Physical Activity

Physical activity and mental health both play a large role on the impacts on a person with cancer quality of life (Faro et al., 2021). Multiple studies have found that physical activity has helped to decrease anxious and depressive moods for people with cancer (McAuley et al., 2010; McNeely et al., 2006; Rogers et al., 2011). Setting attainable goals for physical activity has been found to be motivating for the cancer population and has helped to decrease levels of anxiety and depression (Roscoe et al., 2022). The physical activity can consist of a variety of activities with some examples in the literature being: walking, cycling, machine resistance, free weights, and yoga (Rajarajeswaran. & Vishnupriya, 2009; Yi and Syrjala, 2017). OT practitioners are able to modify and adapt physical activity interventions based on the clients specific needs. Physical activity was also found to increase body and self-esteem in people with cancer (Feriolo et al., 2018). People with cancer found value in completing physical activity groups where they were able to participate in social interactions during their treatments (Feriolo et al., 2018). Physical activity is another tool that OT practitioners can utilize in their interventions to address psychosocial client factors for their clients with cancer. It is important to look at this intervention as it addresses the psychosocial client factors, not just the physical functioning of an individual.

Narrative Techniques

A narrative is a combination of events, experiences, and perspectives conveyed to share a story in a meaningful way (Goldstein et al., 2004). Narrative techniques are not limited to, but commonly used in a group setting where individuals tell stories about their illness, writing

letters, drawing, or listening to other stories (Yang et al., 2020). Narrative techniques allow individuals to express feelings freely and help to decrease emotional distress through gaining perspective and understanding of their illness (Yang et al., 2020). A study found that after utilizing narrative techniques, individuals in palliative care were found to have decreased anxious and depressive symptoms (Korte et al., 2012). Narratives help patients express their feeling about their care to their providers, especially because many providers focus on the diagnosis of the patients and may not address the psychosocial distress that they may experience (Lloyd-Williams et al., 2018). This technique helps to create interventions in a holistic fashion by providing practitioners with an understanding of what that individual is feeling and what they need to be supported (Lloyd-Williams et al., 2018). Narratives are relevant in the practice of OT as they are linked to occupational identity by creating a whole picture of an individual through the lens of MOHO (Goldstein et al., 2004). Narrative techniques such as storytelling, speaking, and listening are great interventions that can be implemented into OT to address psychosocial client factors for people with cancer.

Behavioral Activation Therapy Techniques

Although there is a limited amount of literature addressing interventions used in OT to address mental health for the cancer population, there is a treatment called behavioral activation therapy (BA) that is very similar to OT used to address mental health (Brick et al., 2020). BA is used by increasing pleasurable activities for patients (Janssen et al., 2020). BA looks at occupation through the same lens as MOHO. It takes meaningful occupations that an individual values and utilizes this to implement into an intervention to keep them motivated and engaged during treatment (Hirayama et al., 2019). Two pilot studies were conducted focusing on OT practitioners helping cancer patients participate in meaningful occupations by utilizing

behavioral activation techniques (Lyons et al., 2015; Lyons et al., 2019). These studies found that for cancer patients, BA is an effective technique to utilize to help improve patients' mental health by increasing their participation in meaningful occupations (Lyons et al., 2015; Lyons et al., 2019). BA can provide OT practitioners with tools and techniques to use during treatment to help improve their clients with cancer mental health.

OT Guidebook Development

Different Types of OT Practice Guides

Depending on the information intended to be presented, there is a variation of resources that can be used to portray information. The most common resources developed are practice guidelines, manualized interventions, treatment protocols, and practice guidebook. Each of these resources serve a different purpose. A practice guideline is a resource that provides up-to-date information on best practices for specific populations by reviewing current research within the literature (Dijkers et al., 2021). A practice guideline is similar to a manualized intervention (Blanche et al., 2011). A treatment protocol and manualized intervention are very similar, but vary depending on quality (Kendall & Frank, 2018). A manualized intervention is a standardized and detailed description of a specific treatment that include step-by-step instructions on how to deliver treatment with an outline of treatment goals, techniques, strategies to be used, and expected outcomes allowing for treatment replication to be completed in a randomized controlled trial (Blanche et al., 2011; McMurran & Duggan, 2005). A treatment protocol is a general plan for providing a specific treatment that outlines steps to be taken and procedures to be followed with less detail (Kendall & Frank, 2018). An OT guidebook is a more comprehensive resource than a practice guideline where is details specific assessments to conduct, interventions to deliver, and monitoring how the client progresses (Woolf et al., 2012). There is a variety of these

resources within the literature addressing the cancer population, but they lack detailed information on addressing the psychosocial client factors for people with cancer.

Recommendation for OT Guidebook Development

A systematic review was completed where six handbooks on creating a clinical practice guide were found (Turner et al., 2008). Of the six handbooks, the National Institute for Health and Clinical Excellence (NICE) was determined as the most recent with additional guidebook implementation materials on their website for further assistance (Turner et al., 2008). With NICE being most up to date, the development of the guidebook will be based around their recommendations.

Conclusion

The literature supports OT practitioners utilizing physical activity treatments for people with cancer but does not provide much information on addressing the psychosocial client factors of these clients. OT practitioners are equipped to address psychosocial client factors through participation in meaningful occupations, but do not have an adequate amount of literature to support interventions other than physical interventions. An OT guidebook will help OT practitioners feel confident and comfortable addressing psychosocial client factors for people with cancer by providing them with a resource to follow. The literature reviewed will be a foundation to the development of the OT guidebook as it provides evidence-based literature to support the information that will be presented in the OT guidebook. This literature review identified the current literature on cancer, the secondary impacts it has on the body, how it affects occupation through the lens of MOHO, reported unmet needs from the cancer population, the current role of OT in cancer care, what OT practitioners can do to address psychosocial client factors, and methodology to create an OT guidebook through the lens of MOHO.

Chapter 3: Methodology

The purpose of this project was to create an OT guidebook to address psychosocial client factors for people with cancer. This guidebook was needed because people with cancer have psychosocial client factors that are impacting their engagement in meaningful occupations. The current literature does not go into detail about OT in cancer care, therefore, OT practitioners are less likely to address these psychosocial client factors due to their lack of familiarity with interventions to address this population. The creation of this guidebook provides OT practitioners with a resource to help address psychosocial client factors for people with cancer. The guidebook increases OT practitioners' familiarity with interventions within the cancer population and helps OT practitioners address psychosocial client factors in people with cancer to promote engagement in meaningful occupations. This guidebook utilizes evidence-based evaluation tools and interventions from the literature to guide its information. This tool provides OT practitioners, OT students, advocates, and other individuals with the awareness and understanding of the role of OT in addressing the psychosocial client factors in people with cancer.

OT Guidebook Development Process

The guidebook created for this project followed the NICE handbook to ensure it was appropriately developed (NICE, 2015). According to NICE (2015), the process of creating a guidebook is as follows: scope the literature and identify a need within a certain population, complete a literature review, write an outline for the guidebook, present outline to stakeholders and revise based on comments and feedback, create final draft of guidebook, finalizing and publishing, and continuing to keep information up to date. Due to the limitations of time within

project, the guidebook made it to the final draft step but did not progress on to the finalizing and publishing stage.

The development of this OT guidebook allows OT practitioners to consider each of their patient's distinctive profiles and consider the best evaluation tools and interventions to utilize (Roan et al., 2022). This allows OT practitioners to address their clients with cancer psychosocial client factors based on their individual needs identified in the evaluation stage.

Pre-Guidebook Development Phase

The pre-guidebook development phase consisted of conducting a needs assessment by speaking with stakeholders, scoping the literature, completing a literature review, identify trends and gaps within the literature, and creating an outline (NICE, 2015; Shekelle et al., 1999). In the pre-guidebook development phase, the literature was searched with key terms being cancer, psychosocial, occupational therapy, interventions, oncology, emotional distress, spirituality, and MOHO. The pre-guidebook development phase was conducted through the lens of MOHO and the guidebook will continue to be framed through the lens of MOHO. An outline was then developed based on the organization and findings within the pre-guidebook development phase.

Guidebook Development Phase

The guidebook development phase was the production of the chapters based on the outline developed in the pre-guidebook development phase. The development phase consisted of two stages. The first stage was the development of chapters one and two. The second stage was the development of chapters three and four. The information found from the literature review in the pre-guidebook development phase was a foundation for the information within each chapter.

Guidebook Revision Phase

The guidebook revision phase consisted of receiving feedback on the guidebook and making edits as needed (NICE, 2015; Shekelle et al., 1999). Consultation with stakeholders is an important part of the revision phase to ensure the appropriate level of rigor and quality is present (NICE, 2015). The guidebook was reviewed by the capstone project mentor and doctoral capstone coordinator where feedback for revisions were obtained. The feedback was constructive and used to improve the guidebook. Once the feedback was obtained, the guidebook was revised, and the appropriate edits were made. Once the guidebook development stage one was complete it was sent out for revisions and then once the guidebook development stage two was complete it was sent out. Breaking the development of the chapters up into two stages ensured enough time was allotted to the capstone project mentor and doctoral capstone coordinator to review and give feedback.

Logic Model to Guide Guidebook Development

The development of the OT guidebook was based on a Logic Model which looked at inputs, outputs, outcomes, and impacts of the guidebook (W. K. Kellogg Foundation, 2004). The inputs are what contributed to the development of the OT guidebook, the outputs are what was developed, the outcomes are what the OT guidebook hopes to achieve, and the impacts are the impacts on the cancer population with the development of the OT guidebook (W. K. Kellogg Foundation, 2004). The capstone project was completed at the outcomes portion of the Logic Model due to that being the development of the OT guidebook. Figure 2 is the Logic Model that was used to guide the development of the OT guidebook.

Theoretical Model Framing OT Guidebook: MOHO

MOHO is the framework that was used during the development of the OT guidebook. The utilization of MOHO in this guidebook kept the information consistent, MOHO looks at the

person and their interaction with their environment to shape the use of evaluation tools and interventions within the guidebook (Taylor, 2017). MOHO guided the evaluation portion of the OT guidebook by considering the persons occupational performance and the influence of their environment. The various assessment and screening tools in the guidebook are used to evaluate the individual's performance capacity, volition, and habituation and identify psychosocial client factors that may be limiting their ability to engage in meaningful occupations. During the evaluation, OT practitioners will utilize the OT guidebook to aide in setting goals where there will be an emphasis on collaboration. OT practitioners will work with the client to identify meaningful goals and develop intervention plans that will promote the engagement in the identified meaningful occupations. Based on the evaluation, MOHO guided the interventions by addressing the specific needs of the person related to volition, habituation, and performance capacity. MOHO was the basis of the OT guidebook. Each intervention provides its connection to MOHO to ensure the guidebook is fully incorporating the theoretical model. Table 1 identifies the ideal situation compared to the common situation for people with cancer through the lens of MOHO to help develop an understanding between MOHO and the reason for this guidebook.

Conclusion

The purpose of this project was to create an OT guidebook to address the psychosocial client factors for people with cancer. This provides OT practitioners with familiarity of interventions to address psychosocial client factors in people with cancer. The guidebook was developed in three phases. The phases are the guidebook development phase, the guidebook revision phase, and the guidebook dissemination phase. The OT guidebook was developed based on the Logic Model with MOHO serving as the theoretical framework to guide the information

presented within the OT guidebook. The OT guidebook provides OT practitioners, students, and other areas of the multidisciplinary team with knowledge on the role of OT in cancer care and how OT practitioners can address psychosocial client factors with this population rather than solely addressing neuromusculoskeletal and movement related body functions through physical interventions.

Chapter 4: Results

This chapter is written and formatted as an article for AOTA's *OT Practice* magazine. The purpose of writing an article for AOTA's *OT Practice* magazine is to enhance professional development for OT practitioners by providing knowledge and resources for them when addressing psychosocial client factors in people with cancer. By potentially showcasing the development and contents of the OT guidebook to address psychosocial client factors in AOTA's *OT Practice* magazine, it may contribute to the collective knowledge and further understanding of working with clients with cancer. Access to the OT guidebook to address psychosocial client factors is in the form of a QR code at the end of the article. Once scanned, it will take the audience to the guidebook to address psychosocial client factors in people with cancer.

Addressing Psychosocial Client Factors in People with Cancer

People with cancer have an increased risk of experiencing impacts on their occupational engagement and occupational performance due to physical, cognitive, and psychosocial impacts from cancer treatment (Duker & Sleight, 2019; Pergolotti et al., 2016; Polo & Smith, 2018). The cancer treatment can negatively impact a person's quality of life by possibly causing pain, cognitive impairments, emotional distress, psychosocial distress, lymphedema, and fatigue (Baxter et al., 2017; Duker & Sleight, 2019; Matzka et al., 2016; Pergolotti et al., 2020).

Occupational therapy (OT) is an essential service to enable individuals with cancer engage in meaningful occupations to improve their quality of life. However, the utilization of OT in the cancer population remains limited, resulting in a finite amount of literature on OT interventions to address this population (Pergolotti et al., 2016). According to the literature, the current focus in cancer care predominantly focuses on physical interventions, and people with cancer report that their psychosocial factors are being overlooked (Sleight & Duker, 2016).

OT practitioners have expressed confidence in the use of interventions that address physical client factors because of supporting literature focused on the positive impacts of physical interventions in cancer care (Hunter et al., 2017a). Weis (2015) emphasizes that there is a limited understanding of psychosocial interventions for people with cancer. In a survey, 69% of OT practitioners desired more significant evidence and guidance focused on OT interventions when working with people with cancer (Duker & Sleight, 2019). With this need identified, I created a guidebook to address psychosocial client factors in people with cancer by filling the gap and providing OT practitioners with clear guidelines on addressing psychosocial client factors in people with cancer. The guidebook serves OT practitioners by providing evidence-based assessment tools, techniques, and interventions to address the psychosocial client factors in people with cancer. MOHO is the theoretical model that guides the guidebook's assessments, techniques, and interventions.

Capstone Experience

I completed my capstone experience at the National Alliance on Mental Illness (NAMI) Piedmont Tri-County, which was beneficial in enhancing the development of my capstone project. NAMI is an organization that focuses on education, support, and advocacy within the mental health community. While my project targets the cancer population explicitly, my experience allowed me to recognize the overlap between the impacts of cancer and mental health on a person's engagement in meaningful occupations. The interactions and observations with individuals with mental health conditions throughout my time at NAMI Piedmont Tri-County allowed me to see first-hand the impact psychosocial distress can have on engagement in meaningful occupations. The most common trend I found between my capstone project and capstone experience was the emotional and social challenges individuals with cancer and mental

health conditions experience. Emotional and social difficulties can cause an individual to feel isolated, impacting their social and personal relationships and unique identity. Identifying the trends of social and emotional challenges when experiencing psychosocial distress guided the development of my guidebook by pinpointing the need to incorporate comprehensive, holistic, and person-centered strategies to address psychosocial client factors in people with cancer. NAMI Piedmont Tri-County has helped me deepen my understanding of mental health and its impact on occupation as well as the impact of occupation on mental health. My capstone experience at NAMI Piedmont Tri-County helped inform the development of my guidebook by helping me further understand how psychosocial distress can impact occupational engagement and guided the strategies in the guidebook to go beyond physical interventions to increase the quality of life for individuals with cancer.

OT Guidebook Pre-Development

In the guidebook pre-development phase, various approaches to understanding the needs of the cancer population were conducted. A needs assessment was conducted where different OT practitioners and individuals with cancer were approached. I gained a valuable perspective on cancer's psychosocial impact on individuals by speaking with OT practitioners that have undergone cancer treatment and engaging with family members currently undergoing cancer treatment. Speaking with these two groups of individuals allowed me to understand cancer and cancer treatment's impact on their engagement in meaningful occupations. I was able to understand where they felt services were lacking and where they thought they could have had more support. I then spoke with OT practitioners that currently work in or have worked in cancer care and understood what kinds of interventions they utilize and what kind of resources they

would like to see. Having various perspectives in the field of OT and out of the field, as well as various cancer diagnoses, helped me develop a holistic picture of what was needed.

A literature review was conducted during the guidebook pre-development phase. The exploration of existing literature supported the needs assessment with stakeholders by identifying trends and gaps within the literature. The final problem statement identified during the guidebook pre-development phase was OT practitioners do not have clear OT guidelines within the literature on how to address psychosocial client factors in their clients with cancer.

OT Guidebook Features

The guidebook consists of several chapters, those being: (I) Introduction, (II) Evaluation, (III) Interventions to Address Each Psychosocial Client Factor, and (IV) Additional Resources.

The first chapter of the guidebook provides background and explains the purpose of the guidebook. This chapter discusses how cancer may bring on psychosocial distress and, for the sake of the guidebook, which psychosocial client factors it will address. The five psychosocial client factors are spirituality, mood, body-image, body-esteem, and cognition. It then explains the constructs of MOHO and how this theoretical model will frame the rest of the guidebook.

The second chapter explains the evaluation process. It explains the importance of assessments and screening tools during the evaluation process. It explains the benefits of using MOHO-based assessments and screening tools and presents non-MOHO assessments and screening tools. It then describes the goal setting process utilizing C.O.A.S.T. (Client, Occupation, Assist Level, Specific Condition, and Timeline) goals.

The third chapter presents interventions to address each psychosocial client factor. This chapter provides the audience with information on techniques and specific interventions that OT

practitioners can utilize with their clients with cancer. This chapter also connects each technique to MOHO and how this theoretical model guided the selection of these interventions.

The fourth and last chapter provides additional resources for OT practitioners and their clients to use. The fourth chapter acknowledges a vast selection of resources and the importance of utilizing them to support their clients.

Guidebook Significance

The guidebook developed for this capstone project serves as a recommended tool for OT practitioners to utilize when addressing the psychosocial client factors in people with cancer. The guidebook offers a resource that extends beyond just physical interventions and will expand the knowledge and confidence in working with people with cancer. This guidebook will aid OT practitioners in meeting their client's holistic needs to increase their overall quality of life. Below, you can scan the quick response (QR) code to access a digital version of the guidebook mentioned throughout this article.

Figure 3

Guidebook QR Code

Note. Scan the QR code to digitally access Addressing Psychosocial Client Factors in People with Cancer: An Occupational Therapy Guidebook.

Chapter 5: Discussion

The purpose of this project was to create an OT guidebook to address psychosocial client factors for people with cancer. The guidebook consists of four chapters that address the following: the theoretical model of MOHO that guided the information presented, the purpose of the guidebook, assessments and screening tools, the goal setting process, interventions to address each psychosocial client factor, and additional resources of OT practitioners and their clients.

Impact of the OT Guidebook

As presented within the literature, some OT practitioners have reported that they feel more comfortable addressing their clients' physical functions because much of the literature on cancer care interventions is focused on physical interventions (Hunter et al., 2017a). Weis (2015) emphasizes a current gap in understanding psychosocial interventions working with people with cancer. The guidebook fills an identified gap in the literature by providing a comprehensive resource for OT practitioners to address the psychosocial client factors for people with cancer. The OT guidebook is a complementary resource to current resources in the literature addressing physical interventions for people with cancer.

According to AOTA (2020b), the OT profession focuses on providing a holistic approach to clients through engagement in meaningful occupations to encourage independence. Although holistic care is the focus of the profession, some people with cancer are still reporting that their OT practitioners are not addressing their psychosocial symptoms, and they would like them to be addressed (Mitchell, 2007; Pergolotti et al., 2016; Player et al., 2014; Sleight & Duker, 2016). The OT guidebook promotes the importance of holistic care in OT by providing OT practitioners with information on addressing psychosocial client factors in people with cancer, promoting a holistic approach to their clients with cancer.

The guidebook aligns with the core values of the role of OT by filling the need for a holistic approach for the population, promoting engagement in meaningful occupations, and utilizing MOHO throughout the OT process of developing the guidebook. The guidebook has been designed to positively impact the lives of people with cancer by providing OT practitioners with a more holistic approach. The recognition of psychosocial client factors in people with cancer may positively impact people with cancer's quality of life by developing a more comprehensive approach to their cancer care.

Conclusions from the OT Guidebook

A couple of conclusions can be drawn with the capstone project of developing an OT guidebook to address psychosocial client factors in people with cancer. The first conclusion is an identified need for OT interventions within the literature to address psychosocial client factors in people with cancer. OT practitioners have reported wanting to learn more about psychosocial interventions, which leads to the conclusion that there is a lack of psychosocial interventions within the literature (Ulfers & Berg, 2017). The capstone project emphasizes that the current literature addresses physical interventions as it has positively impacted physical function (Taylor, 2018; Morikawa & Amanat, 2022; Udovicich et al., 2020). But people with cancer are reporting their psychosocial needs are unmet (Christensen et al., 2020; Sleight & Duker, 2016). The OT guidebook offers a holistic approach by providing OT practitioners with ways to address the unmet needs of psychosocial client factors.

The second conclusion is the need for OT specific evidence-based practice resources to address psychosocial client factors in people with cancer. The literature review found a limited amount of evidence-based practice resources in the literature explicitly addressing OT. The role of OT in cancer care has been reported to be underdeveloped and explained within the literature

(Silver & Gilchrist, 2011). It can be concluded that with the underdeveloped role of OT in cancer care, there are limited OT specific resources to address psychosocial client factors in people with cancer. The OT guidebook to address psychosocial client factors in people with cancer serves as a start to provide evidence-based practice resources to address psychosocial needs in people with cancer by analyzing current literature from various domains to understand what is currently available in the literature and providing that as a resource for OT practitioners. The OT guidebook also serves as a foundation for future research in OT to address psychosocial client factors in people with cancer.

Strengths and Limitations of the OT Guidebook

The development of the guidebook has a few notable strengths and limitations identified throughout the capstone project. One of the recognized strengths of the project is that it fills a gap within the literature by providing a resource for OT practitioners to address their client's psychosocial client factors. With literature mentioning some OT practitioners are looking for a resource to address psychosocial interventions, and the guidebook meets the request from OT practitioners (Ulfers & Berg, 2017). The guidebook fills the gap by providing OT practitioners with evidence-based interventions identified in the literature and through stakeholders. Another strength of the guidebook is the utilization of MOHO. Due to its validity, the use of MOHO in cancer interventions is the most suitable model (Désiron et al., 2013). MOHO supports looking at a client holistically by considering a person's volition, habituation, and performance capacity. The last strength identified is the guidebook's organization and formatting. The guidebook is clear and concise, with organized chapters. The guidebook provides practical examples and a case study that aids OT practitioners in the application of their interventions. The guidebook is in a digital format, making it more accessible to individuals seeking the material.

Limitations were also identified during the duration of the project. The first limitation is the time constraint. Due to the limited time to complete the capstone project, a few areas of the project could not be completed in its entirety. The first area is the number of psychosocial client factors. With various psychosocial client factors in the literature, the most common five were presented to keep the project concise. The limited psychosocial client factors leave room for other OT practitioners to build off the capstone project and look into other psychosocial client factors. Due to time limitations, the guidebook will not move onto the finalizing and publishing stage during the capstone project. The other identified limitation is the generalizations within the guidebook. Although the guidebook provides examples of interventions, assessments, and resources, it is essential to remember that each client is different, and one client's needs may not be met by the information presented within the guidebook. The guidebook serves as a guide, not as a tool to follow strictly. Identifying the strengths and limitations of the capstone project offers a window into future research that can be done toward refining and expanding information in the field of OT related to addressing psychosocial client factors in people with cancer.

Future Recommendations

Moving forward, it is essential to disseminate the OT guidebook further to address psychosocial client factors in people with cancer. The first step towards further dissemination is submitting the guidebook to AOTA's *OT Practice* magazine and the University of St. Augustine for Health Sciences database called *SOAR*. Each of these forms of dissemination will allow the guidebook to reach various OT practitioners and OT students to further educate them on addressing psychosocial client factors in people with cancer.

To continue to disseminate the material further or on a larger scale would consist of beginning the finalizing and publishing process. The finalizing and publishing process continues

to edit the guidebook and send it to a group of individuals for review to ensure it is valid and sound. Continued dissemination may also look like presenting the information and product at a state or national level, writing an editorial for a journal, or presenting to various facilities or practice settings to emphasize the importance of addressing psychosocial client factors in people with cancer.

Scholarship is essential in enhancing the profession of OT (AOTA, 2022b). There is an expectation that OT practitioners contribute to scholarship throughout their careers to continue to develop the profession (AOTA, 2022b). There is significant room for other OT practitioners to build off the guidebook to address psychosocial client factors in people with cancer. The OT guidebook sets the foundation for future scholarship, practice, and research developments. OT practitioners can build off the information presented in the OT guidebook and conduct further research to provide more validity and efficacy in addressing psychosocial client factors in people with cancer. Further research should focus on interventions, outcome measures, and treatment fidelity. OT practitioners can develop research in various forms, such as programs, practice guidelines, manualized interventions, or treatment protocols, to enhance the understanding of OT practitioners' role in addressing psychosocial client factors in people with cancer.

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Table 1

The Constructs of The Model of Human Occupation Applied to People with Cancer

MOHO	Ideal Situation	Common Impacts on People with Cancer
Volition		
Interests	Identifies enjoyable and meaningful activities and occupations and engages in them	Engagement in activities and occupations may decrease due to decreased meaning and joy from them due to psychosocial client factors
Values	Has important beliefs or standards that guide decision-making and behavior	Does not believe in what they once did and unable to identify personal beliefs to guide participation
Personal Causation	Feels competent and confident in abilities to control their life and make decisions	Believes they have little control over their life and many things are impacted by external factors such as their cancer
Habituation		
Habits	Has repetitive and routine activities and occupations completed each day	Does not have structure to maintain a routine due to changes in hospital visits, rehabilitation, etc. from cancer causing dysfunction
Roles	Maintains expectations and responsibilities associated with identity	Expectations may change during cancer treatment
Patterns	Repetitive ways engaging in occupations to establish roles and routines	Changing in routines due to changes in engagement in occupations from cancer treatment
Performance Capacity		

MOHO	Ideal Situation	Common Impacts on People with Cancer
Mental Abilities	Positive self-perception of ability to engage in activities and occupations	Self-perception of abilities to engage in an occupation or activity decreases due to changes in cognitive function, physical functioning, and psychosocial functioning
Physical Abilities	Strong physical functioning correlated with engagement in occupations and activities	Physical functioning may decrease due to cancer treatment and may create dysfunction with engaging in previous occupations and activities
Environment	Strong ability to adapt and meet the demands within the environment	Decreased ability to adapt to environment due to different impacts of cancer treatment such as cognitive effects, emotional effects, and social participation

Note. This table identifies the constructs of MOHO and the ideal situation in comparison to common situation for people with cancer (Taylor, 2017).

Table 2

Commonly Used Occupational Therapy Evaluation Tools for People with Cancer

Assessment	Description
Disabilities of Arm, Shoulder, and Hand Questionnaire (DASH) (Hudak et al., 1996)	Used to assess the functional ability of the upper extremity.
Functional Independence Measure (FIM) (Hamilton et al., 1994)	An 18-item assessment measuring how much assistance will be required for an individual to complete various ADLs.
Canadian Occupational Performance Measure (COPM) (Law et al., 1990)	Assesses client-identified problems in the areas of self-care, productivity, and leisure.
Numeric Pain Rating Scale	People assign a numeric value (0-10) to the level of pain experienced (0 is no pain, 10 is most severe pain).
Brief Fatigue Inventory (BFI) (Mendoza et al., 1999)	Used to quickly measure the fatigue people with cancer experience.
Disabilities of Arm, Shoulder, and Hand Questionnaire (DASH) (Hudak et al., 1996)	Used to assess the functional ability of the upper extremity.

Note. The assessments in this table were based on the trends identified throughout the literature.

Table 3

Recommended Occupational Therapy Evaluation Tools to Address Values, Beliefs, and Spirituality in People with Cancer

Assessment	Description
Model of Human Occupation Screening Tool (MOHOST) (Parkinson et al., 2008)	Used to assess an individual's volition, habituation, communication skills, motor skills, process skills, and environment to identify occupational functioning.
Life Balance Inventory (LBI) (Matuska, 2012)	Identifying valued activities are healthful, meaningful, and sustainable.
Volitional Questionnaire (VQ) (Chern et al., 1996)	Observation analyzing values and motivation of an individual within their environment.
FICA Spiritual History Tool (Puchalski & Romer (2000)	Analyzes faith or beliefs, importance and influence, community, and address to determine how each person views and values spirituality.

Note. The assessments in this table are based on supporting literature.

Table 4

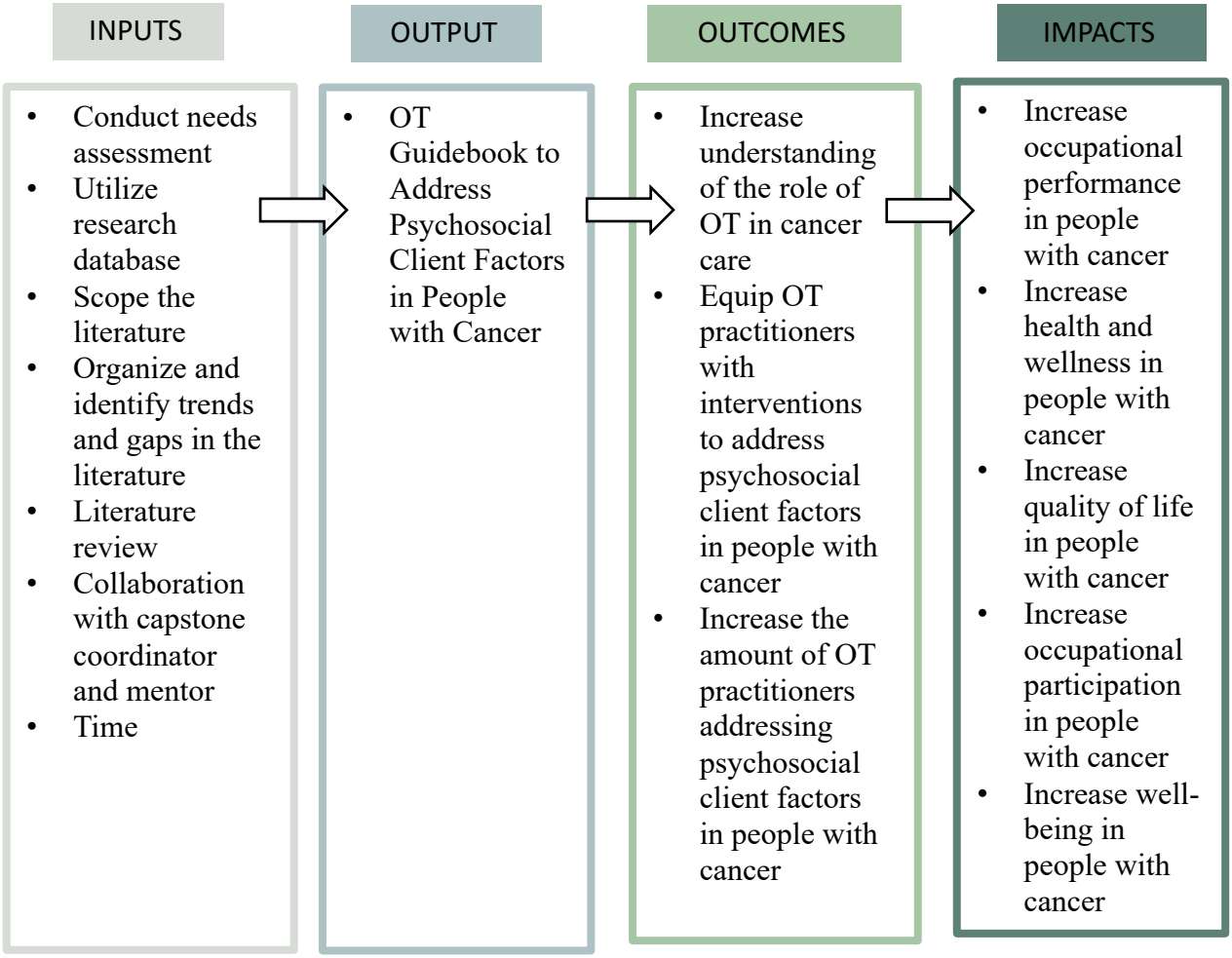
Recommended Occupational Therapy Evaluation Tools to Address Mental Functions in People with Cancer

Assessment	Description
Occupational Self-Assessment (OSA) (Kielhofner & Forsyth, 2001).	Analyzes an individual's self-perception of their occupational competence.
Functional Assessment of Cancer Therapy-General (FACT-G) (Cella et al., 1993)	Analyze the quality of life of people with cancer.
Hospital Anxiety and Depression Scale (HADS) (Zigmond & Snaith, 1983)	Two sub-scales to determine if an individual with an illness is experiencing depression or anxiety.
Assessment on Communication and Interaction Skills (ACIS) (Forsyth et al., 1998)	Assesses communication and social interaction skills by looking at relationships, information exchange, and physicality.
Beck's Anxiety Inventory (BAI) (Beck et al., 1988a)	Discriminates between anxiety and depression and identifies the severity of anxiety and symptoms experienced.
Beck's Depression Inventory-II (BDI-II) (Beck et al., 1988b)	Determines the severity of an individual's depression and the symptoms experienced.
Brief Symptom Inventory (BSI-18) (Derogatis, 2000)	Screening for psychological distress.
Montreal Cognitive Assessment (MoCA) (Nasreddine et al., 2005)	Used to quickly detect mild cognitive dysfunction.
Mini Mental Status Exam (MMSE) (Molloy & Standish, 1997)	Used to assess cognitive impairments, good tool to check cognitive impairment over time.
Body Esteem Scale (BES) (Franzoi & Shields, 1984)	Self-reported of views on one's body and appearance.

Note. The assessments in this table are based on supporting literature.

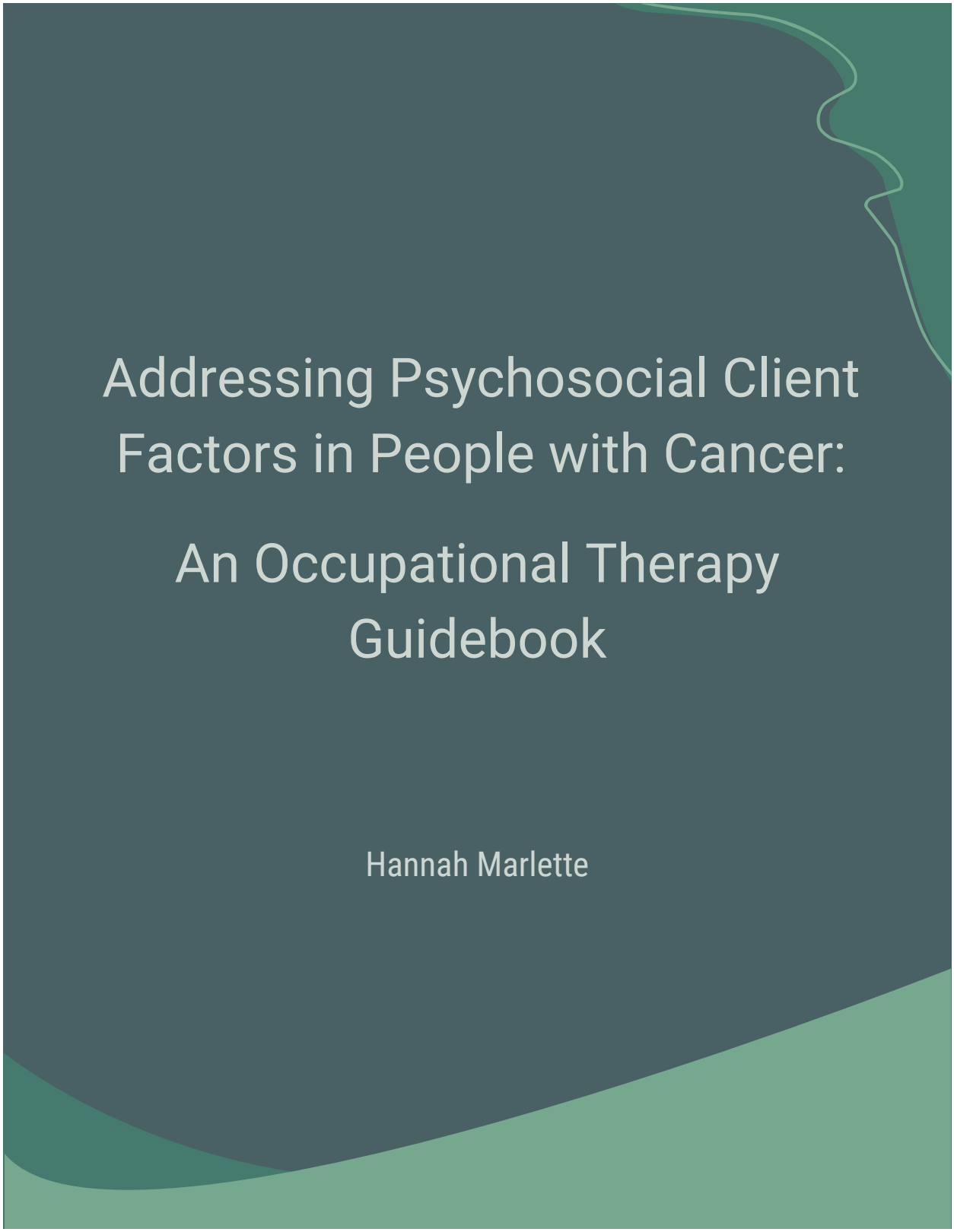
Figure 1

Capstone Project Guidebook Development Logic Model



Note. The Logic Model is used to show the development of the OT guidebook to address psychosocial client factors in people with cancer and is developed from (W.K. Kellogg Foundation, 2004).

Appendix A


Addressing Psychosocial Client Factors in People with Cancer:
An Occupational Therapy Guidebook
Hannah Marlette

Addressing Psychosocial Client Factors for People with Cancer: An Occupational Therapy Guidebook

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TABLE OF CONTENTS

Chapter 1: Introduction

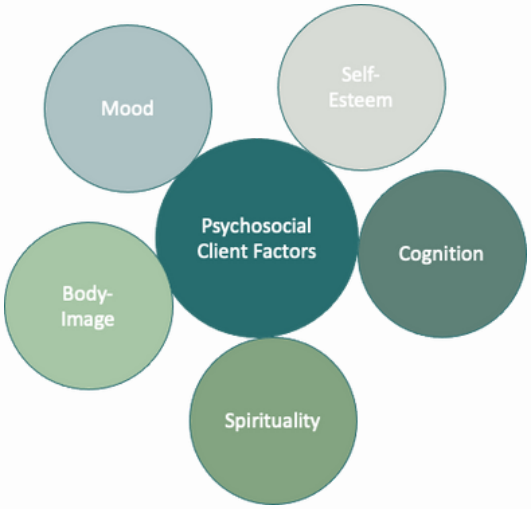
Purpose of Guidebook

Occupational therapy (OT) has an important role to play in the improvement of daily functioning of people with cancer. The purpose of this OT guidebook is to provide OT practitioners with guidance on how to address psychosocial client factors in people with cancer. This guidebook is designed to provide a comprehensive overview of the most common psychosocial client factors people with cancer may experience. It will help OT practitioners navigate the OT process when addressing psychosocial client factors in people with cancer. Throughout this guidebook, expect to learn about various assessment and screening tools, goal setting, evidence-based interventions, and resources that can be utilized when addressing psychosocial client factors in people with cancer.

Cancer is a group of abnormal cells with uncontrolled growth and spreading that impacts an individual's life and may cause death if not treated (American Cancer Society, 2022). In the year 2023, it is projected that over 1.9 million new cancer cases will be developed within the United States (Siegel et al., 2023).

It is common for many people with cancer to experience psychosocial distress throughout the course of their disease (Weis, 2015). Psychosocial distress is defined as a "multifactorial unpleasant experience of psychological (i.e., cognitive, behavioral, emotional), social, spiritual,

Figure 1.1. Most Common Psychosocial Client Factors



Note. Figure created based on the most commonly found psychosocial client factors in the literature (Adler et al., 2008; Chaar et al., 2018; Grassi et al., 2017).

and/or physical nature that may interfere with one's ability to cope effectively with cancer, its physical symptoms, and its treatment." (Riba et al., 2019, p. 2). Client factors are defined as, "specific capacities, characteristics, or beliefs that reside within the person, group, or population and influence performance in occupations" (American Occupational Therapy Association [AOTA], 2020, p. 15). With there being a large variety of psychosocial client factors that may impact an individual with cancer, this guidebook will address the five most common psychosocial client factors found within the literature. As seen in Figure 1.1, those

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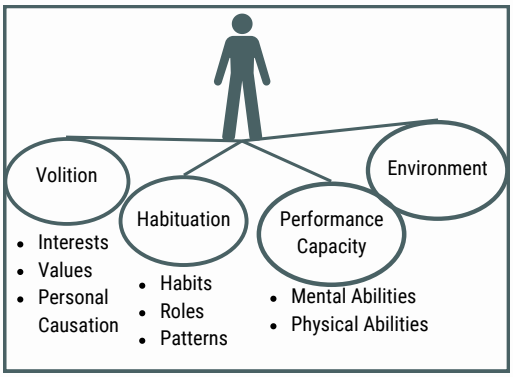
client factors are spirituality, mood, body-image, body-esteem, and cognition.

The Model of Human Occupation (MOHO) incorporates the client's habits, roles, and patterns (Taylor, 2017). Performance capacity has mental and physical abilities where mental is the person's self-perception of their ability to complete an occupation, and physical is a person's physical ability to complete an occupation (Taylor, 2017). Environment plays a large role in MOHO, with physical, social, and occupational contexts impacting it (Taylor, 2017). One's environment can support or hinder their engagement in meaningful occupations depending on the situation (Taylor, 2017). Everyone is different; therefore, the impacts cancer and cancer treatment have on each person may vary, but Table 1.1 analyzes the constructs of MOHO in the ideal situation compared to a person with cancer. MOHO is the theoretical framework that has been used to guide the development of this OT guidebook.

OT continues to be an underused service with the cancer population; therefore, there is a limited amount of literature present about OT interventions for this population (Pergolotti et al., 2016). Sleight and Duker (2016) suggest that OT practitioners tend to prioritize physical interventions while working with people with cancer, whereas these clients report needing more psychosocial interventions. Psychosocial interventions address a client's psychological, behavioral, and social strategies. Several people with cancer reported not receiving services to address their psychosocial needs such as mood and cognition (Adler et al., 2008). Three articles were reviewed, two of which were specifically related to OT services, and they reported that individuals with cancer cognition (Adler et al., 2008). Three articles were reviewed, two of which were specifically related to OT services, and they reported that individuals with cancer expressed the feeling that their cognitive and psychosocial symptoms were not being adequately addressed (Mitchell, 2007; Pergolotti et al., 2016; Player et al., 2014).

Figure 1.2. Model of Human Occupation



Note. Figure created based on *Kielhofner's model of human occupation: Theory and application* (Taylor, 2017).

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Table 1.1. The Constructs of MOHO Applied to People with Cancer

	MOHO	Ideal Situation	Common Impacts on People with Cancer
VOLITION	Interests	Identifies enjoyable and meaningful activities and occupations and engages in them	Engagement in activities and occupations decrease due to decreased meaning and joy from them due to psychosocial client factors
	Values	Has important beliefs or standards that guide decision-making and behavior	Does not believe in what they once did and are unable to identify personal beliefs to guide participation or values once held may be newly inspired
	Personal Causation	Feels competent and confident in abilities to control their life and make decisions	Believes they have little control over their life and many things are impacted by external factors such as their cancer
HABITUATION	Habits	Has repetitive and routine activities and occupations completed each day	Does not have structure to maintain a routine due to changes in hospital visits, rehabilitation, etc. from cancer causing dysfunction
	Roles	Maintains expectations and responsibilities associated with identity	Internal and external expectations may change during cancer treatment
	Patterns	Repetitive ways engaging in occupations to establish roles and routines	Changing in routines due to changes in engagement in occupations from cancer treatment
PERFORMANCE CAPACITY	Mental Abilities	Positive self-perception of ability to engage in activities and occupations	Self-perception of abilities to engage in an occupation or activity decreases due to changes in cognitive function, physical functioning, and psychosocial functioning
	Physical Abilities	Strong physical functioning correlated with engagement in occupations and activities	Physical functioning may decrease due to cancer treatment and creates dysfunction with engaging in previous occupations and activities
ENVIRONMENT		Strong ability to adapt and meet the demands within the environment	Decreased ability to adapt to environment due to different impacts of cancer treatment such as cognitive effects, emotional effects, and social participation

Note. Table created based on *Kielhofner's model of human occupation: Theory and application* (Taylor, 2017).

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Chapter 2: Evaluation

The OT evaluation process aims to gather information about the client's abilities, limitations, goals, and priorities to develop an individualized treatment plan (AOTA, 2020). The information is gathered through a variety of assessments, interviews, and observations to develop an individualized treatment plan and goals. It is important to note that the evaluation process is ongoing, and it is an OT practitioner's responsibility to monitor their client's progress to ensure the treatment plan and goals are attainable, and if this course changes they are adjusted as needed.

The goal of this section is to provide guidance for OT practitioners during the evaluation process to address psychosocial client factors in people with cancer. This section will provide OT practitioners with assessment recommendations and setting goals with clients to develop a treatment plan. It is important to keep in mind that it is essential to evaluate clients holistically. The guidance and resources provided in this section are addressing psychosocial client factors in people with cancer, but a variety of other assessments, interviews, and goals should also be used in order to be holistic.

Assessments/Screening Tools

Assessments are used to analyze a client's occupational performance where supports and barriers are identified to develop a treatment plan and goals (AOTA, 2020). Assessments help OT practitioners understand what is impacting an individual's participation in meaningful occupations such as their physical functioning, cognitive functioning, and psychosocial functioning (Pergolotti et al., 2016). During the evaluation process, it is important to complete a variety of assessments with the client to ensure a developed understanding of their needs are identified in order to create goals and an individualized treatment plan (Braveman & Newman, 2020).

The use of MOHO-based assessments allows OT practitioners to understand what each specific individual values and their roles which will allow them to address these values throughout treatment. This will help OT practitioners address the client's psychosocial client factors by having these individuals engage in roles and occupations they once valued. Table 2.1 provides a list of MOHO-based assessments that can be used to assess psychosocial client factors in people with cancer and which specific client factors that they can assess. The MOHO-based assessments presented are tools that can be used to assess psychosocial client factors in people with cancer. Other frameworks can also be used to assess psychosocial client factors in people with cancer, Table 2.2 provides a list of non-MOHO-based assessments that OT practitioners can use

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to assess psychosocial client factors in people with cancer. The assessments presented are various tools that can be used during the evaluation process, but when assessing a client's psychosocial client factors, it may not be limited to these tools. The assessments can vary depending on the individualized needs of each client, therefore there are other assessments that may be appropriate but have not been mentioned in this chapter.

Table 2.1. MOHO-Based Assessments

MOHO-Based Assessment	Description	Psychosocial Client Factors it May Assess
Model of Human Occupation Screening Tool (MOHOST) (Parkinson et al., 2008)	Used to assess an individual's volition, habituation, communication skills, motor skills, process skills, and environment to identify occupational functioning.	Spirituality, Mood, Self-Esteem, Cognition
Volitional Questionnaire (VQ) (Chern et al., 1996)	Observation analyzing values and motivation of an individual within their environment.	Spirituality, Mood, Self-Esteem
Occupational Self-Assessment (OSA) (Kielhofner & Forsyth, 2001).	Analyzes an individual's self-perception of their occupational competence.	Self-Esteem
Assessment on Communication and Interaction Skills (ACIS) (Forsyth et al., 1998)	Assesses communication and social interaction skills by looking at relationships, information exchange, and physicality.	Self-Esteem, Cognition

Note. Table created based on MOHO assessments within the literature to assess psychosocial client factors in people with cancer.

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Table 2.2. Non-MOHO Assessments

Other Assessment	Description	Psychosocial Client Factors it May Assess
Life Balance Inventory (LBI) (Matuska, 2012)	Identifying valued activities are healthful, meaningful, and sustainable.	Spirituality, Mood
FICA Spiritual History Tool (Puchalski & Romer (2000)	Analyzes faith or beliefs, importance and influence, community, and address to determine how each person views and values spirituality.	Spirituality
Functional Assessment of Cancer Therapy-General (FACT-G) (Cella et al., 1993)	Analyze the quality of life of people with cancer.	Mood
Hospital Anxiety and Depression Scale (HADS) (Zigmond & Snaith, 1983)	Two sub-scales to determine if an individual with an illness is experiencing depression or anxiety.	Mood
Beck's Anxiety Inventory (BAI) (Beck et al., 1988a)	Discriminates between anxiety and depression and identifies the severity of anxiety and symptoms experienced.	Mood
Beck's Depression Inventory-II (BDI-II) (Beck et al., 1988b)	Determines the severity of an individual's depression and the symptoms experienced.	Mood
Brief Symptom Inventory (BSI-18) (Derogatis, 2000)	Screening for psychological distress.	Spirituality, Mood, Body-Image, Self-Esteem, Cognition
Montreal Cognitive Assessment (MoCA) (Nasreddine et al., 2005)	Used to quickly detect mild cognitive dysfunction.	Cognition
Mini Mental Status Exam (MMSE) (Molloy & Standish, 1997)	Used to assess cognitive impairments, good tool to check cognitive impairment over time.	Cognition
Body Esteem Scale (BES) (Franzoi & Shields, 1984)	Self-reported of views on one's body and appearance.	Body-Image

Note. Table created based on assessments within the literature to assess psychosocial client factors in people with cancer.

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Goal Setting

Goal setting is a critical component of the occupational therapy process where OT practitioners collaborate with their clients. The collaboration aids in developing measurable and attainable goals that the OT practitioner and client both agree. The goal-setting process is individualized; therefore, each goal will vary from client to client. The goals developed will be based on the information that is obtained in the occupational profile such as supports, barriers, and priorities of the client.

The COAST goal format is a common format that can be followed during the goal-setting process. COAST stands for client, occupation, assist level, specific condition, and time (Gateley & Borcherding, 2017). The client is the individual the goal is being set for, occupation is the occupation that the client will be working on, assist level is the amount of assistance required to achieve the goal, specific conditions are conditions that are required for the client to achieve the goal such as an assistive device or body position, and time is the timeframe the client is expected to achieve the goal. When writing a goal in COAST goal format, it ensures that the goals are occupation-based or occupation-focused, measurable, observable, action-oriented, realistic, and achievable. The collaboration with clients and the COAST goal format helps the goals to be meaningful to the client. Short-term goals and long-term goals may vary depending on the setting an OT practitioner is working in. Normally, a short-term goal timeframe is 1-2 weeks long and a long-term goal timeframe is 3 weeks or longer.

When it comes to goal setting, MOHO can guide the goals developed for clients based on the client's volition, habituation, and performance capacity. Volition can help OT practitioners develop goals that are meaningful to their clients. For example, a client who values spending time with family may have a goal of participating in a family gathering after their cancer treatment. Habituation can help clients stick to their roles and routines or develop new roles and routines. For example, the family gathering mentioned above may happen every Sunday evening, therefore the client may need to do tasks throughout the day in order to attend the family gathering. Another example is if the client has a routine of waking up early, they may have a goal where they complete their daily journaling in the morning. Performance capacity allows OT practitioners and clients to identify barriers that may be hindering one's engagement and create goals to address this. For example, if a client is experiencing a decreased mood that is affecting their ability to complete an occupation, they may have a goal to write down three meaningful things each day for a week. By incorporating the COAST goal format and MOHO, OT practitioners can develop effective goals that improve a client's overall quality of life. Table 2.3 provides COAST goal examples that address psychosocial client factors in people with cancer.

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Table 2.3. Examples of Psychosocial Goals for People with Cancer

Psychosocial Client Factor	Examples of Psychosocial Goals
Spirituality	• Client will utilize 2 volitional supports, related to their recent cancer diagnosis, in order to engage in meaningful religious practices, with verbal cues, as measured by self-report, in 2 months. • Client will utilize 3 cognitive supports, related to their recent cancer relapse, in order to engage in regular spiritual reflection and promote spiritual expression, independently, as measured by self-report, in 3 weeks.
Mood	• Client will utilize 3 grounding strategies, related to their cancer treatments, in order to promote effective health management, with verbal cues, as measured by self-report, in 1 month. • Client will use 2 environment/task modifications, related to their depressive moods from their cancer treatment, in order to promote engagement in leisure activities, independently, as measured by self-report, in 2 weeks.
Body-Image	• Client will use 3 volitional supports, related to their visible and non-visible body changes from their cancer treatment, in order to promote effective health management, independently, as measured by self-report, in 2 weeks. • Client will explore the use of 2 cognitive supports, related to their visible and non-visible body changes from their cancer treatment, in order to promote social participation with peers, with verbal cues, as measured by self-report, in 2 weeks.
Self-Esteem	• Client will use 4 symptom management strategies, related to their self-esteem challenges from their recent cancer diagnosis, in order promote effective health management, with verbal cues, as measured by self-report, in 1 month. • Client will utilize 3 cognitive supports, related to their self-esteem challenges from their recent cancer diagnosis, in order to engage in ADLs, independently, as measured by self-report, in 3 weeks.
Cognition	• Client will utilize 3 cognitive strategies, related to their cancer-related cognitive impairments, in order to engage in ADLs and IADLs, independently, as measured by objective cognitive assessments, in 3 months. • Client will use 4 environment/task modifications, related to their cancer-related cognitive impairments, in order to engage in work participation, independently, as measured by self-report, in 2 weeks.

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Chapter 3: Interventions

The intervention process is divided up into the intervention plan, intervention implementation, and intervention review (AOTA, 2020). The intervention plan is selected based on the collaborative goals developed by the OT practitioner and client. The intervention plan considers the information obtained during the evaluation process and the current occupational performance. Intervention implementation is when the intervention plan is executed and monitored by the OT practitioner. The interventions selected are expected to be evidence-based and client-centered to achieve the established goals. During the intervention review the OT practitioner may adjust the interventions as needed based on their client's needs. Interventions are reviewed by collaborating with clients, re-evaluating interventions, and reviewing best practices.

This chapter will discuss interventions that can be used to address various psychosocial client factors. The interventions may overlap and address other psychosocial client factors. Please note that these interventions are recommendations, not the only interventions that may be used to address each psychosocial client factor, and they will need to be modified based on the needs of each client. The information in this chapter will provide various interventions to address each psychosocial client factor and will explain its connection to MOHO.

Spirituality

Spirituality can be described as an individual's purpose in life, values, and beliefs (Rudolfsson et al., 2014). After being diagnosed with cancer, it is common for an individual's spirituality and personal values to change (Grassi et al., 2017). Some of the changes may result in an increase in spirituality, whereas in other cases it may result in an individual questioning their beliefs and meaning. The person may have a changed concept of the meaning of their life and existence (Grassi et al., 2017). The way spirituality may be impacted can vary from person to person. It is important to acknowledge that cancer can have a significant impact on an individual's spirituality, and it is important to provide OT interventions if this is the case.

After a cancer diagnosis, a client may experience changes in their spirituality. The impact on a person's spirituality can vastly vary, but there are some common signs that can be identified by OT practitioners. For example, a client that has been diagnosed with cancer may express that they do not see purpose in their current life. They may express this by asking what the point is of participating in therapy or the point of continuing cancer treatment. Changes in spirituality can also be seen through religion, where a once-religious person may stop attending religious gatherings, or a non-religious individual may now seek out a religious community or would like to explore their spiritual beliefs.

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Meaning Making

Meaning making is a helpful technique used to assist individuals in understanding and interpreting their experiences by allowing opportunities for personal growth and alleviating negative psychological and spiritual feelings (Park, 2022). Park (2022) identifies two kinds of meaning, global meaning, and situational meaning. Global meaning is an individual's general comprehension of how the universe works, personal identity, religion, and sense of purpose, and situational meaning is ones understanding of the meaning of specific life events such as an illness (Park, 2022). Table 3.1 provides some examples of various interventions utilizing the meaning making techniques.

Table 3.1. Examples of Interventions Using Meaning Making Techniques

Intervention Type	Intervention Approach	Intervention Example	Intervention Description
Occupations and Activities	Create or Promote	Memory Books	Create a scrapbook of meaningful memories or experiences which help the client to identify what they value and serves as a tangible reminder of all the things they enjoy promoting a spiritual connection to the world around them.
Occupations and Activities	Create or Promote	Artwork	Create artwork through various mediums such as drawing, painting, or sculpting to express feelings towards the impact cancer has had on their life to further promote a sense of meaning and control of their experience with cancer.
Interventions to Support Occupations	Establish or Restore, Maintain	Life Review	Reflect on previous experiences and identifying the meaning behind these experiences to allow the individual to understand how their meaningful experiences have shaped their values and beliefs.

Note. Table created based on interventions within *Meaning-making in occupational therapy interventions: A scoping review* (Mello et al., 2021).

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Narratives

A narrative refers to a collection of experiences, perspectives, and events that are shared to express a story in a meaningful way (Goldstein et al., 2004). Utilizing the narrative technique allows individuals to freely express their emotions which may help reduce their emotional distress by providing a clearer understanding and perspective on their diagnosis (Yang et al., 2020). Narrative techniques can help OT practitioners encourage their clients to share their spiritual beliefs, values and meaning and help implement these into their daily lives. Table 3.2 provides some examples of various interventions utilizing the narrative techniques that can be used by OT practitioners.

Narratives connect to MOHO because they both focus on personal experiences, values, and beliefs to shape the individual's occupational performance. Narratives are relevant in the practice of OT as they are linked to occupational identity by creating a whole picture of an individual through the lens of MOHO (Goldstein et al., 2004).

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Table 3.2. Examples of Interventions Using Narrative Techniques

Intervention Type	Intervention Approach	Intervention Example	Intervention Description
Group Intervention	Establish or Restore	Group Treatment	Have the individuals share their story in a group allows for them to connect with one another going through a similar experience. The group helps provide a supportive environment for people that may feel alone. If an individual is uncomfortable sharing their story, it is still beneficial to hear other people share their stories.
Interventions to Support Occupations	Create or Promote	The Tree of Life	Create a visual to represent that client's life. It starts with a tree that can be drawn or printed out where the roots represents where the client comes from and their family, the ground or grass is day to day activities, the trunk is their skills and abilities, the branches are their goals for the future, the leaves are important people in their life, and storm clouds are challenges the individual faces. OT practitioners can help facilitate a discussion about the significant parts of the individual's life and how that have shaped their values and beliefs. (See Figure 3.1).
Occupations and Activities	Create or Promote	Therapeutic Writing	Have the individual write out their story so they can explore their own purpose and meaning.

Note. Table created based on interventions within *The experience of patients with cancer on narrative practice: A systematic review and meta-synthesis* (Yang et al., 2020).

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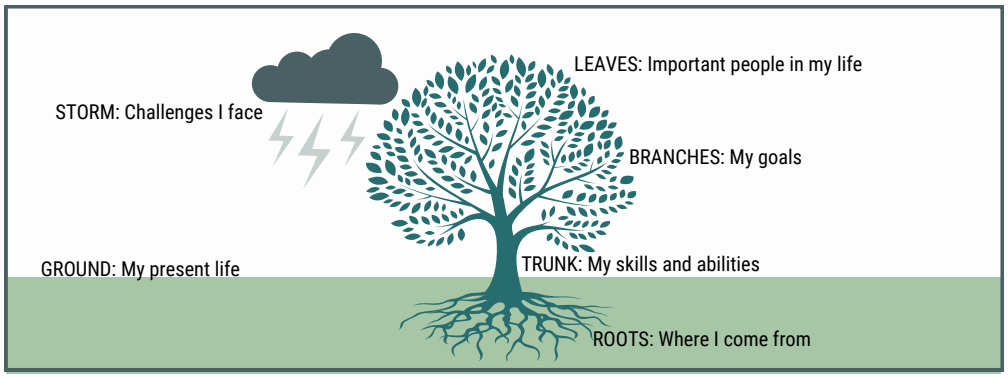
Figure 3.1. Example of The Tree of Life Activity



Note. Figure created based on *The tree of life project: Using narrative ideas in work with vulnerable children in Southern Africa* (Ncube, 2006).

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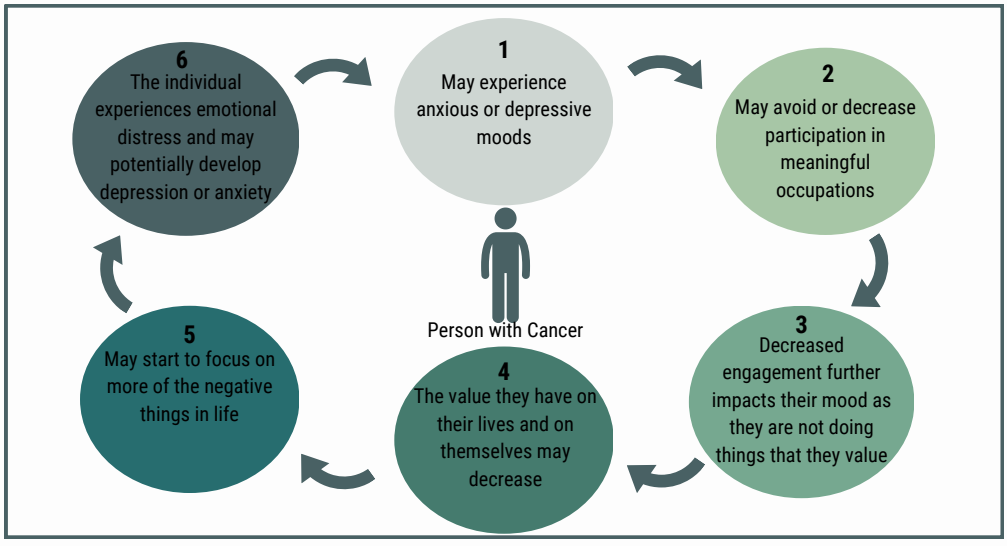
Mood

The diagnosis of cancer is a life-changing event that can lead to a variety of emotions such as anxiety, depression, or anger. Cancer can leave people with overwhelming emotions such as anxious or depressive moods to the point where it impacts the completion of everyday activities (Wilson, 2020). The uncertainty of what is to come, and the symptoms associated with the cancer treatment can largely impact an individual's mood. Figure 3.2 shows a cycle demonstrating the impacts mood can have on a person with cancer's engagement in meaningful occupations.

Following a cancer diagnosis, an individual may experience a range of new emotions that can impact their mood. Anxious or depressive moods can be identified in many ways, as people express their emotions in different ways. For example, a client may express concerns or fears of reoccurrence. They may express feelings of worry centered around their treatment outcomes or interactions with healthcare providers. They may also feel hopeless and down because they feel as if they are burdening their family. The changes in one's mood can fluctuate throughout hours, days, or even weeks. It is important to recognize these changes for OT practitioners to provide interventions and care that serve their client's needs.

Figure 3.2. Occupational Engagement Cycle for Person with Cancer



Note. Figure created based on *Behavioral activation therapy for depression and anxiety in cancer patients: A case series study* (Hirayama et al., 2019).

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Grounding

Grounding is a kind of mindfulness training that can be used to help address mood disturbances an individual with cancer may experience such as anxiety or depression (Hofmann & Gómez, 2017). These kinds of techniques can help an individual stay present and in control of their current situation and feelings rather than becoming overwhelmed with various emotions. Grounding techniques can help individuals with cancer engage in meaningful occupations by providing them with coping strategies to manage mood disturbance related to their cancer treatment. Table 3.3 provides some examples of various interventions utilizing grounding techniques that can be used by OT practitioners.

MOHO connects to grounding techniques by addressing the mental abilities of performance capacity. Grounding techniques can help increase an individual's self-perception of their abilities to participate in occupations. An increased self-perception can lead to more confidence in engaging in meaningful occupations and it can provide individuals with strategies to manage their emotional distress.

Table 3.3. Examples of Interventions Using Grounding Techniques

Intervention Type	Intervention Approach	Intervention Example	Intervention Description
Interventions to Support Occupations	Create or Promote, Maintain	Five Senses Check-In	Have the individual identify five things they can see, four things they can feel, three things they can hear, two things they can smell, and one thing they can taste to help the individual engage in their current environment.
Interventions to Support Occupations	Create or Promote, Maintain	Box Breathing	Have the individual breath in for four seconds, hold for four seconds, breath out for four seconds and hold again for four seconds. Have the individual picture each breath or hold as a line on a box and to imagine they are drawing a box with their breathing.
Interventions to Support Occupations	Establish or Restore, Maintain	Progressive Muscle Relaxation	Guide the individual through tensing and releasing specific muscle groups to center the individual and relax the point of tension.

Note. Figure created based on interventions within *Psychosocial interventions for advanced cancer patients: A systematic review* (Teo et al., 2019).

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Activity Planning

Behavioral activation therapy (BA) is very similar to OT used to address emotional distress (Brick et al., 2020). BA is used by increasing pleasurable activities for patients (Janssen et al., 2020). Two studies found that for cancer patients, BA is an effective technique to utilize to help improve patients' mental health by increasing their participation in meaningful occupations (Lyons et al., 2015; Lyons et al., 2019).

Activity planning is a BA technique utilized to help a client engage in meaningful occupations. Activity planning is where a meaningful occupation to the person with cancer is identified, organized and monitored, and implemented in to increase that person's mood (Lyons et al., 2019). Similar to grounding techniques, activity planning helps individuals feel in control of their situation by actively participating in the decision of the activities chosen to engage in. It has also been shown to improve the mental health of individuals with cancer by helping them to engage in occupations that they find meaningful and valuable

Activity planning connects to MOHO by taking meaningful occupations that an individual values and utilizes this to implement into an intervention to keep them motivated and engaged during treatment (Hirayama et al., 2019). It addresses volition by having the individual identify occupations that align with their values, interests, and personal causation. It addresses habituation by considering the person's routines, habits, and patterns and planning activities that are incorporated into existing routines. Activity planning connects to performance capacity by considering the person's mental and physical abilities to ensure the activities are appropriate for the individual.

The process of activity planning can be divided up into four components (Brick et al., 2020). Those components are (1) values identification and goal setting, (2) activity scheduling, (3) activity monitoring, and (4) skills training.

Values identification and goal setting is where collaboration between the OT practitioner and client will take place. The person's values and interests are identified, and meaningful goals are set that align with the values and interests identified. Collaborative goal setting helps the individual feel in control and the meaningful occupation identified helps the individual to be motivated because of its value to them (Brick et al., 2020).

Activity scheduling is when the client and OT practitioners schedule out when the activities will be completed. The schedule provides the person with a routine and allows them to schedule out time in their day to complete it (Brick et al., 2020).

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Activity monitoring is where the individual tracks or documents their engagement in meaningful occupations. This can be done in a variety of ways, such as activity logs or self-report measures (Brick et al., 2020). Exhibit 3.1 is an example of an activity log that can be used during the activity monitoring component.

Skills training is where the focus is on the person's abilities to engage in meaningful occupations. This is where the OT practitioner may work on time management, problem-solving, or any other skills the person may need to enhance to ensure they are effectively engaging the meaningful occupations. The OT practitioner will work on developing the necessary skills to help the person feel comfortable (Brick et al., 2020).

Remember, each person is different, and the activity planning should reflect that. Communication with the client is crucial in understanding what they value and find meaningful in order to plan the kind of activity they will be completing. The activities chosen are expected to be enjoyable, achievable, and applicable to the identified goals.

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Exhibit 3.1. Example of Activity Planning Sheet

MY WEEKLY ACTIVITY PLAN AND CHECK-IN

My Activity: _____ **Dates:** _____

Weekly Plan (how often will I do this activity?) _____

What might make my activity hard? How can I prepare for this?

_____

_____

_____

	Did I Complete the Activity	How I Felt During Activity	Obstacles During Activity
MON			
TUES			
WED			
THURS			
FRI			
SAT			
SUN			

Weekly Reflections:

_____

_____

_____

Note. Template developed based on information in *Health through activity: Initial evaluation of an in-home intervention for older adults with cancer* (Lyons et al., 2019).

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Body-Image

Body-image is how a person perceives their feelings and thoughts about their physical appearance (Brederecke et al., 2021). Body-image is subjective and can change over time. When undergoing cancer treatment, an individual's body-image may be impacted due to visible and non-visible changes such as hair-loss, scarring, and sensory changes (Brederecke et al., 2021). Some examples of body-image concerns are having difficulties adjusting to one new body whether that is from weight loss, hair loss, or body disfigurement, feeling embarrassed of one's body or worried about what others think, and may be dissatisfied with their physical appearance (Bolton et al., 2010). These changes can alter an individual's body-image which may lead to psychosocial distress.

Visible and non-visible changes within one's body can cause distress after a cancer diagnosis. If a client is not straightforward about body-image concerns, this psychosocial client factor can be more difficult to identify as an OT practitioner. Some examples an OT practitioner can look for is social interactions. If a client is not participating in social situations, it can be important to dive deeper into the reason for this. A person may avoid social situations because they are unhappy with the way they look and feel that they will be judged by others around them. Another sign a person may be experiencing visible body-image concerns is the avoidance of looking at oneself in the mirror or in pictures, or on the opposite end of the spectrum, they may be excessively looking at themselves in the mirror or in pictures. This can indicate the person may be having a difficult time coping with their new visible body changes. Non-visible changes can be difficult to identify, but it may be a hint that a person is experiencing concerns if they avoid occupational participation. They may not feel that their body is capable of the things it used to be due to the changes it has experienced. It is important to keep body-image in mind when working with clients with cancer, as it can be a harder psychosocial client factor to identify.

Physical Activity

Physical activity refers to engaging in meaningful movement-based activities to improve or maintain physical function and overall health (Roychowdhury, 2020). Physical activity has been found to increase body and self-esteem in people with cancer (Feriolo et al., 2018). Physical activity interventions can help people with cancer promote a positive body-image and improve the person's body-confidence. Table 3.4 provides some examples of various interventions utilizing physical activity techniques that can be used by OT practitioners.

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Physical activity connects to MOHO by selecting activities that encompass the person's values, interests and motivations. Engaging in physical activity helps to establish a healthy routine that addresses the individual's habituation. Performance capacity can be impacted by changes in the person's physical abilities from the physical activity techniques.

Table 3.4. Examples of Interventions Using Physical Activity Techniques

Intervention Type	Intervention Approach	Intervention Example	Intervention Description
Occupations and Activities	Create or Promote	Mind-Body Integration	Tai chi, pilates, or yoga are physical activities to help promote body-awareness and mindfulness to help individuals develop positive connections with their bodies.
Occupations and Activities	Establish or Restore, Create or Promote	Therapeutic Exercise Program	Communicate with client on their priorities and goals then design and implement an exercise program that is tailored on these things. Common focuses are strength, range of motion, and endurance. Some examples are, resistance training with Therabands can address strength, stretching can address range of motion, and cardiovascular exercises such as an arm bike can address endurance.
Occupations and Activities	Create or Promote	Outdoor Recreation	Encourage the client to engage in outdoor physical activities such as going on a walk, hiking, or riding a bike. This can promote a sense of well-being and positive body experience.

Note. Table created based on interventions within *Exercise in cancer* (Rajarajeswaran. & Vishnupriya, 2009).

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Goal Setting

Goal setting can be used to address body-image through collaboration with the client and OT practitioner. As mentioned earlier, it is important to ensure the goals are measurable and attainable. The goal setting technique is focused on setting goals related to the person with cancer body-image concerns. The goals may be centered around areas such as improving body acceptance, engaging in body-positive activities, or developing coping trategies to manage body changes (Mello et al., 2021). Exhibit 3.2 provides an example of a body goal worksheet that can be used to set and analyze body-image goals. Each goal should be personalized to each client's unique needs and values. Some examples of goals that can be used to address a person with cancer body-image concerns are:

- Client will engage in a daily self-care routine, independently, to enhance body appreciation, for the next two weeks, as measured by self-report.
- Client will engage in a dance class, independently, to enhance body confidence, twice a week for four weeks, as measured by self-report.
- Client will engage in daily body gratitude journaling, independently, to enhance body appreciation, for two weeks, as measured by the journal.
- Client will identify and document daily positive body affirmations, independently, to improve body positive self-talk and reduce body negative self-talk, for two weeks, as measured by documented affirmations.
- Client will engage in photography by capturing photos that identify the beauty of one's body, independently, to encourage body appreciation through an artistic medium, for three weeks, as measured by captured images.

Goal setting connects to MOHO to address body-image by exploring the individual's values, interests, and motivation. Clients identify goals that align with their volition to improve their body perception. Setting goals relates to habituation by encouraging the establishment of new habits and routines that promote body acceptance and improve body perception. Engaging in new activities centered around body-image may alter the person's habits and routines.

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Exhibit 3.2. Example of Body Goal Worksheet

MY BODY GOAL

My Goal: _____

_____

Why This Goal: _____

_____

Date to Achieve Goal: _____

What might make my goal hard to reach? How can I prepare for this?

_____

_____

_____

HOW CAN I ACHIEVE MY GOAL?

1) _____

2) _____

3) _____

4) _____

5) _____

THINGS I LIKE ABOUT MY BODY

○ _____

○ _____

○ _____

○ _____

HOW CAN I APPRECIATE MY BODY MORE?

1) _____

2) _____

3) _____

HOW I FEEL ABOUT MY BODY

How have I been working towards my goal?

_____

_____

Note. Template developed based on information in *The management of altered body image: A role for occupational therapy* (Shearsmith-Farthing, 2001).

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Self-Esteem

Self-esteem is subjective and is how a person views their own values and worth by how they perceive and judge themselves (Szcześniak et al.,2021). A diagnosis of cancer and undergoing cancer treatment can significantly impact a person's self-esteem. Cancer treatment can impact an individual physically, cognitively, and psychosocially, which can contribute a person's self-esteem.

Self-esteem can be altered after a cancer diagnosis. A person with cancer may show feelings of insecurity by avoiding certain situations because they are not confident in their physical ability to do something or their cognitive ability to do something. For example, a client may avoid going to the gym because they may not be confident in their ability to work out due to their physical limitations, or they may be self-conscious or worried about what other people at the gym may think. Another example that an OT practitioner can look for is if their client lacks confidence about their roles and identity. A person may feel hopeless and upset with themselves if they are unable to engage in previous roles such as caretaking for children or family members. losing confidence in one's ability to engage in their previous roles may make them feel that they have lost a sense of themselves and their identity.

Journaling

Journaling is a valuable technique that can be used for self-esteem by helping people through self-reflection and self-discovery (Sohal et al., 2022). Throughout cancer treatment, this outlet can provide people with a safe and private area to express themselves where they can write down or draw things such as thoughts, feelings, and experiences. OT practitioners can utilize this intervention to guide and facilitate positive self-esteem through various prompts, exercises, or specific topics. OT practitioners can also work with the client on engaging in meaningful occupations and then reflective journaling after engaging in the occupation. Figure 3.3 provides an example of a visual journal prompt that can be followed. Some prompts that can be used following occupational participation are:

- How did this occupation make you feel about yourself and your abilities?
- Write down three strengths you discovered about yourself while you are engaging in this meaningful occupation.
- How did you overcome the challenges you faced while engaging in this occupation? What problem-solving skills did you learn during this?
- Did you receive any feedback from people around you while engaging in the occupation? If yes, how did this feedback impact your self-perception?
- Did you discover any new interests or values while completing this occupation?

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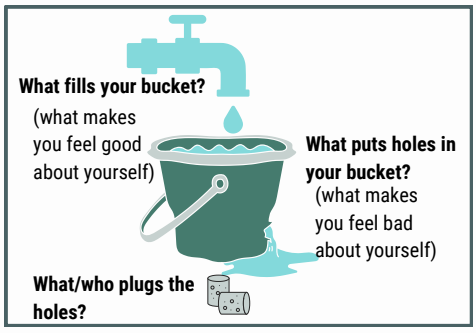
Figure 3.3. Self-Esteem Bucket Prompt



Note. Figure created based on *Self-Esteem Bucket* (Taprell, 2019).

Journaling can also be used on its own. Listed below is a list of prompts that can be used when journaling.

- Write three things that make you feel empowered.
- Write what you believe is your best quality.
- Write what your greatest accomplishment today was.
- Write down five reasons why your family and friends are proud of you.
- Write down what you are grateful for.
- Write ten strengths you have.
- Write down what you did well today.
- Write down when you feel good about yourself.
- Write down your largest life accomplishments.
- Write down when you feel most confident.

Both sets of prompts listed above are designed to encourage self-reflection and personal growth to increase an individual's self-esteem. It is important to note that the journaling intervention should be unique and personalized to each individual.

Journaling connects to MOHO by having the individual reflect on their motivation and values and help the client identify other values to explore their identity. Journaling can provide structure and routine in a person's life. Journaling may allow the individual to gain betting insight into their performance capacity and increase their self-perception of their ability to engage in activities. Journaling can be a meaningful activity to address self-esteem as it supports an individual's volition, habituation, and performance capacity by promoting self-reflection and personal growth.

Reframing Thoughts

Reframing thoughts is an intervention technique that can be used to challenge or modify thoughts that may contribute to low self-esteem for people with cancer (Antoni et al., 2006). It is focused on replacing negative thoughts with positive ones so that individuals can enhance their self-esteem by changing how they view themselves. The first thing an OT practitioner should do when utilizing this intervention is discuss with the client their negative thoughts. After understanding these thoughts, have the client explain why they think those thoughts are true. Once they have done this, try to explain to them that instead of saying one thing, try to say

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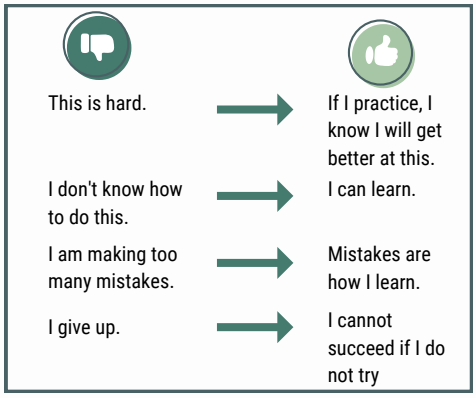
something else instead. Figure 3.4 provides examples of reframing thoughts that can be used.

Figure 3.4. Examples of Reframing Thoughts



Another way to reframe the thoughts of someone is by providing a visual. Visuals can help the person see what they can and cannot control. Figure 3.5 is an example of a visual that can be used to help clients gain perspective and understanding.

Figure 3.5. Reframing Thoughts Visual

Reframing thoughts connects to MOHO by helping clients to establish new or modified habits and routines. Learning to replace negative thoughts with positive ones will help individuals develop new habits related to the way they think. Reframing thoughts also relates to performance capacity by attempting to alter the individual's self-perception to a more positive outlook.

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Cognition

Cognition can be impacted due to cancer and cancer treatment, with some of the most common impacts being on a person's attention, processing, memory, and problem-solving (Hardy et al., 2018). The cognitive impacts that people with cancer may experience can affect several areas of their life and engagement in meaningful occupations. The cognitive impacts can also affect how the person goes about navigating their cancer treatment, as their cognitive functioning may not be the same as it once was. OT practitioners play a significant role in addressing these impacts by providing various interventions to optimize their client's cognitive functioning.

Changes in cognition after a cancer diagnosis can be observable by looking at a person's attention, memory, and executive functioning. Some examples of observations that may be identified are during a conversation or activities, the individual may have difficulty staying focused. The person may have difficulty recalling stories or previous things they did that week, and planning out a task or solving a problem can also be difficult. A client may also express that they feel that their brain is foggy or they are having a difficult time with simple tasks. Cognitive impairments can take many forms; therefore, it is important that OT practitioners are constantly keeping an eye out for changes in cognition when working with people with cancer.

Routine Establishment

Routine establishment is a technique that OT practitioners can use to address cognition in people with cancer. Routine establishment aims to develop a structured and meaningful routine to support the person's cognition (Arlinghaus & Johnston, 2018). When partaking in routine development, it is essential to collaborate with the client on what they find meaningful and how to incorporate that into the routine. In addition to identifying meaningful occupations with the client, discussions about specific cognitive difficulties an individual is experiencing should also be discussed in order to establish a routine that will address these cognitive impacts. Establishing a routine can happen in many different forms depending on the needs of the person. For example, memory aids can be things such as writing on paper, keeping things in sight, medication organizers, or electronic calendars/reminders (Acquired Brain Injury Outreach Service, 2017). When establishing a routine, it is important to trial and error various cognitive strategies in order to identify what works best for the client and their current needs. Table 3.5 provides examples of routine establishment interventions that can be implemented to address a person's cognition.

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Routine establishment connects to MOHO by focusing on habituation to enhance cognitive functioning. Routine establishment helps the individual establish regular patterns and habits that can aid and address their cognitive functioning. Engaging in a routine can help the individual feel in control and less overwhelmed. Routine establishment also addresses the physical and social environment by having the client and OT practitioner collaboratively develop an environment that promotes organization and the use of cues and reminders. This may help individuals engage in more meaningful occupations.

Table 3.5. Examples of Interventions Using Routine Establishment Techniques

Intervention Type	Intervention Approach	Intervention Example	Intervention Description
Occupations and Activities	Modify	Task Breakdown	Work with the client on breaking down a complex task into a series of simpler tasks to help the client schedule out their day in a more manageable manner.
Interventions to Support Occupations	Establish or Restore	Cognitive Training	Implement cognitive tasks into the persons daily routine such as word games, memory exercises, chunking information and mnemonics to stimulate cognitive functioning and address areas such as memory and attention.
Interventions to Support Occupations	Modify	Memory Aids	Collaborate with client on memory aids that may work for them such as calendars, sticky notes, and visual aids that can become a part of their daily routine and serve as cognitive reminders. Exhibit 3.3 provides a template of a daily planner that can be used as a memory aid for clients to manage their time, remember tasks for the day, and prioritize activities.

Note. Table created based on interventions within *Cancer-related cognitive problems at work: experiences of survivors and professionals* (Klaver et al., 2020).

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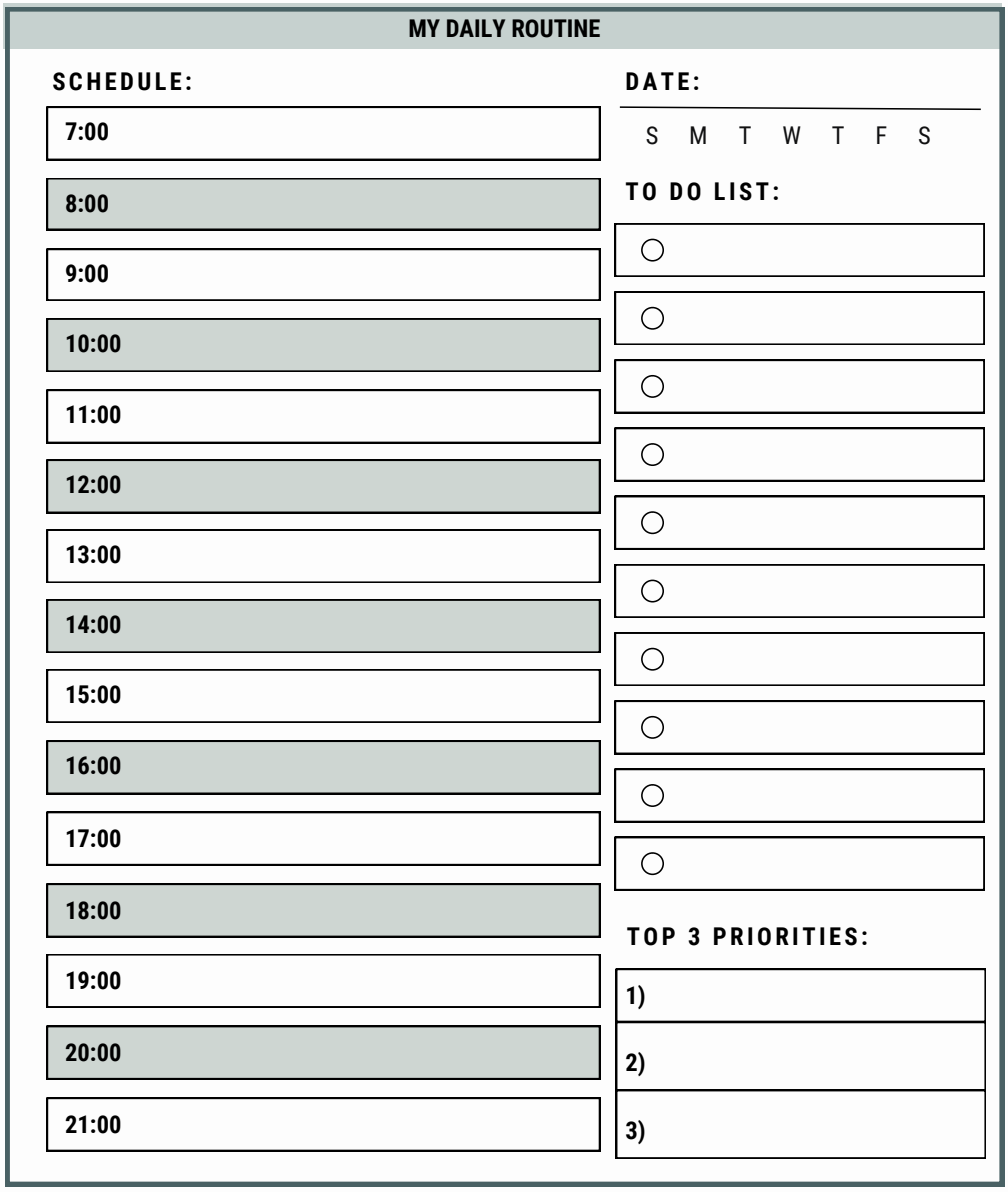
Exhibit 3.3. Example of Routine Establishment Visual



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Effective Communication

Effective communication can be used to address cognitive impacts for people with cancer. Effective communication is a technique that can be used to increase a person's engagement in meaningful occupations such as social participation. When an individual with cancer is experiencing cognitive changes, it can affect their ability to process, understand, and express, which may impact their communication and social interaction skills (Pendergrass et al., 2018). Table 3.6 provides examples of effective communication interventions that can be implemented to address a person's cognition.

Effective communication connects to MOHO by addressing a person's performance capacity. It impacts the client's mental abilities and their self-perception to engage in an occupation. It also relates to the environment by impacting a client's ability to engage in social interactions and meet the demands of their environment.

Table 3.6. Examples of Interventions Using Effective Communication Techniques

Intervention Type	Intervention Approach	Intervention Example	Intervention Description
Interventions to Support Occupations	Modify	Environmental Modifications	Modify the person's environment to make it more conducive for effective communication. This can look like changing the lighting, reducing distractions, and providing visual cues to support the person's cognitive functioning.
Education and Training	Establish or Restore	Communication Worksheets	Communication worksheets can allow time for social interaction reflections as well as provide thoughts on how to improve their communication skills. Exhibit 3.4 provides an example of a communication worksheet that could be used with a client.
Occupations and Activities	Establish or Restore	Partner Communication Practice	Have the client practice the seven C's of effective communication with family members or friends to practice the skills. See Figure 3.6 for more information on the seven C's for effective communication.

Note. Table created based on interventions within *Cancer-related cognitive problems at work: experiences of survivors and professionals* (Klaver et al., 2020).

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Exhibit 3.4. Example of Communication Worksheet

MY COMMUNICATION WORKSHEET

How well do I communicate in each of these situations?
(scale 1-10)

SOCIAL	WORK	PERSONAL RELATIONSHIPS

Reflect on previous situations:

Explain what happened	Things I did well	Things I did not do well	What I can do to improve next time

What would I say if I am having trouble remembering, processing, or paying attention to what someone is saying or doing?

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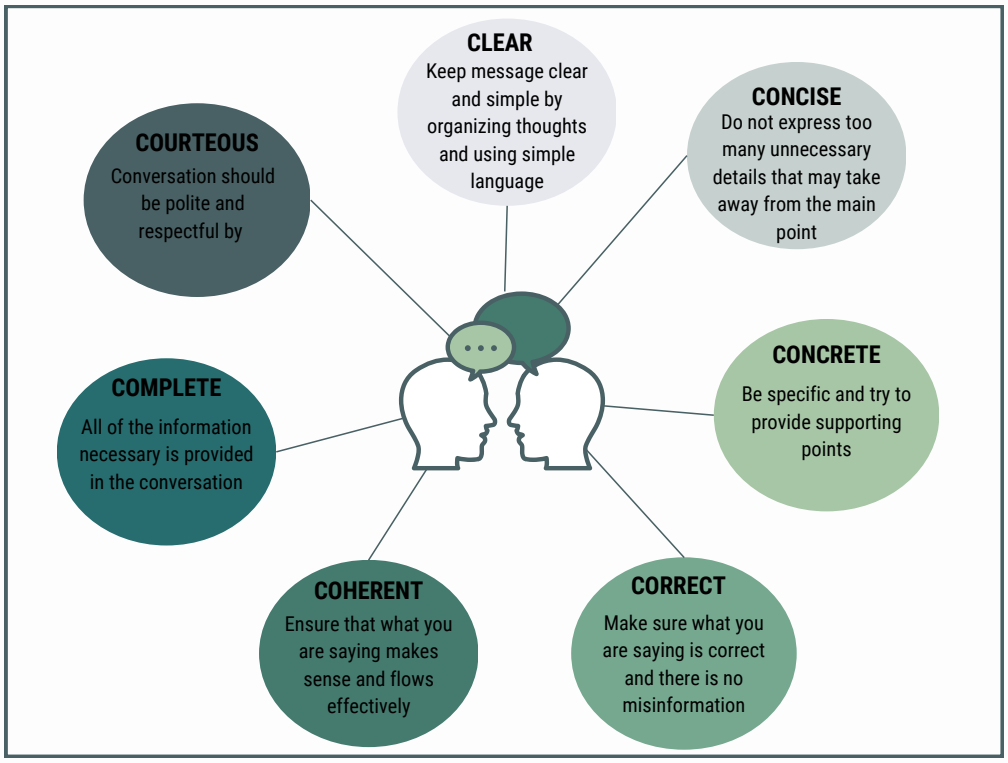
Figure 3.6. Seven C's of Effective Communication



Note. Figure created based on *Seven c's of effective communication* (Sureka et al., 2018).

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Case Example

Each individual experience with cancer is different. It is important to understand that the way an individual may experience, or present psychosocial distress can vary from case to case. Case Example 3.1 serves as an example of how a person with cancer may present the mentioned psychosocial client factors in this chapter and what an OT practitioner can do to address them.

Case Example 3.1. Emily's Case

Emily is a 32-year-old Hispanic woman who was diagnosed with Stage III epithelial ovarian cancer. After being diagnosed, she underwent surgery where a hysterectomy and bilateral salpingo-oophorectomy were performed (both ovaries and fallopian tubes were removed). She is currently in her fourth week of chemotherapy.

Emily has been married for four years to her husband, Josh. She mentioned that she values cooking for him and would consider her and her husband to be “foodies” as they enjoy trying new recipes. Emily and Josh’s five-year anniversary is coming up, and Emily mentioned that she wanted to do something special for him. After speaking with her OT practitioner, they brainstormed that cooking Josh a meal would be a great way to celebrate their anniversary. Emily expressed hesitation at first as she was worried about passing out or getting too exhausted while prepping the meal. Her OT practitioner had her create a visual where she wrote down what she could control and what she could not control regarding cooking a meal for her husband on their anniversary. This increased Emily’s confidence in her ability to cook a meal for Josh as it gave her a new perspective on her abilities as well as showed her what she can control. She also mentioned that she would be proud of herself if she can cook the meal for Josh. Emily also reported a lack of body confidence. She wanted to have intimate time with Josh on their anniversary but felt nervous about it. She mentioned feeling nervous because she gets fatigued quickly. She accounts for the fatigue as a side effect of the chemotherapy. Emily’s OT practitioner had Emily fill out the body goal worksheet (Exhibit 3.2) and then provided her with a therapeutic exercise program focused on cardiovascular exercises to improve her endurance in preparation for intimacy with Josh.

Emily also said that she and Josh enjoy playing euchre with another couple in their neighborhood. She said that since she had started chemotherapy, they had not had the couple over to play because she does not believe she would be able to remember all of the rules. She said that she believed the chemotherapy made her experience ‘chemobrain’.

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Case Example 3.1. Emily's Case *(Cont.)*

Emily worked with her OT practitioner to develop memory aids to remind her of the rules of the game. The memory aids consisted of cards that could be left on the corner of the table as a quick reference of the rules to aid Emily with her memory. Emily reported that cards worked great, and she can now play euchre with her neighbors without feeling worried about not remembering the rules.

After Emily's surgery, she was informed that she would no longer be able to have children on her own. This news was extremely devastating to Emily, as she mentioned that family holds great importance in her culture. Emily mentioned that hearing the news of her infertility made her question what her purpose and meaning in this world were if she was unable to have children on her own. Emily's OT practitioner has Emily develop a memory book where Emily found photos, magazine clippings, quotes, and other significant items to place in the book. After creating the memory book, Emily gained a new perspective on the purpose and meaning of her life by identifying things she finds significant and meaningful.

Emily mentioned that she had been avoiding social situations with her extended family because she felt that every time, she engaged in social outings with them she was reminded of her infertility. Emily's extended family has dinner together once a week where they rotate between houses or restaurants depending on the group consensus. She reported having many young nieces and nephews and felt guilty for not wanting to go to their weekly dinners. Emily reported that she felt like she was not present in social situations. She mentioned that her heart would race, and it was all she could think about. To avoid those anxious feelings, Emily said that she preferred to stay home causing her to feel isolated. Emily and her OT practitioner developed grounding strategies that she could use at the next family outing to help with her anxious feelings. The OT practitioner has Emily try the five senses check-in and box breathing and see if any of them work. After the next family outing, Emily reported that the five senses check-in helped her stay present at the family dinner and she was able to appreciate the time with her family.

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Chapter 4: Additional Resources

This guidebook provides strategies that OT practitioners can utilize when addressing psychosocial client factors in people with cancer, but it is essential to understand that there are more resources and strategies inside and outside of the scope of OT. This chapter aims to highlight some of the available resources for people with cancer and OT practitioners.

Resources for OT Practitioners

As OT practitioners it is essential to continue life-long learning and have access to resources that aid in professional development and enhance knowledge and skills. Table 4.1 provides a list of resources and brief descriptions of what is offered for OT practitioners. By utilizing some of the resources below, OT practitioners may be more equipped to provide comprehensive, holistic care for their clients with cancer.

Table 4.2. Additional Resources for OT Practitioners

Resource	Description
The Schwartz Center for Compassionate Healthcare	Provides resources , education, and advocacy for healthcare providers to provide compassionate care. It focuses on emotional support, communication, and empathy and provides education for healthcare providers in these areas.
The Journal of Humanities in Rehabilitation	Serves as a platform for clients, caregivers, and healthcare providers to share stories, research, and other creative mediums. It allows individuals to share lived experiences with illness and provide for these individuals and how compassion and person-centered care is perceived and experienced. This resource opens up new prospectives for clients, caregivers, and healthcare providers.
American Cancer Society Education and Training Resources for Professionals	Developed for healthcare providers to enhance their knowledge in cancer care. It provides healthcare providers with resources such as educational materials, simulations, workshops, and webinars to enhance the provider's skills in cancer care. This resource also serves as a space for networking and exploring research within the cancer care field.

Chapter 4: Additional Resources

Resources for People with Cancer

Additional resources outside of the scope of OT provide clients with a more expansive network that branches beyond the therapeutic and rehabilitation environment. Additional resources can help the client feel that they are being supported in more aspects of their life, as many of the resources mentioned can connect them to a community that shares similar experiences which may help address some of the psychosocial distress they may be experiencing. Resources may also help by providing the clients with people that have more knowledge and expertise in specific areas. In order to provide quality care for clients as an OT practitioner, it is important to know when to provide a client with other resources. Resources may also be able to help in areas such as financial support/management and transportation that is not within the scope of OT, but still addresses the client's needs holistically. Table 4.2 provides a list of resources and brief descriptions about what they offer.

Chapter 4: Additional Resources

Table 4.2. Additional Resources for People with Cancer

Resource	Description
Lilly Oncology on Canvas	A platform for people affected by cancer to express their emotions through art. It is a virtual art exhibit providing a sense of community for individuals affected by cancer and showing each unique experience through a different lens.
Cancer Support Community	A nonprofit that provides support for people affected by cancer. They offer various resources such as workshops, counseling, and online resources to help people with cancer and their caregivers cope with the uncertainty of the diagnosis. Aims to provide a supportive community for people affected by cancer.
ENGAGE Inititive	Aims to break down the barrier between mental health conditions and cancer. It is empowering people with cancer and their families to advocate for holistic care and be active participants in the decision-making process of their care. It also aims to advocate for interdisciplinary collaboration for person-centered care.
WeSPARK Cancer Support Center	Provides free virtual programs and services for people affected by cancer. It aims to increase people's quality of life by focusing its programs and services on the physical and emotional impacts of cancer and cancer treatments.
Cancer*Care*	Provides supportive services that can be virtual or in person. They provide counseling, support groups, publications, aid in resource navigation, and financial/co-payment assistance. Services are provided by master's-prepared oncology social workers and cancer-experts.
Imerman Angels	Provide support and comfort for people with cancer by providing free on-on-one support with someone who has gone through a similar experience. Each connection is personalized and aims to fir that person's needs.
Cancer Wellness Center	Aims to improve the emotional and physical well-being of individuals with cancer by providing psychosocial support, wellness services, and education services.
Living Well Cancer Resource Center	Aims to enhance the quality of life of people with cancer and their caregivers by reducing isolation and providing skills and community to empower this population. Services are free where they offer counseling, support groups, nutrition classes, wig boutique, art classes, and fitness classes. These services aim to creat a sense of community and support.
Look Good Feel Better	Aims to improve self-esteem for people with cancer by offering free virtual and in-person sessions that teach beauty techniques to empower people with cancer and increase their confidence.