Maintaining client mental well-being within a physical health setting through therapeutic mechanisms – a scoping review for occupational therapy.

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Abstract

Background

Well-being is a subjective concept embedded within the core values of the occupational therapy philosophy. Well-being is comprised of mental/emotional, physical, cultural/spiritual, social, financial, environmental, intellectual, and vocational aspects which have direct impact on the perceived mental and physical health, and quality of life of an individual. An individual's perception of their well-being also influences the occupations that they engage in, their roles and routines, resilience, and how they cope with day-to-day life. The way the clinicians address an individual's holistic well-being has a powerful influence on occupational therapy outcomes and experiences while accessing healthcare services. Occupational therapy is said to be a holistic practice; however, due to the mental health and physical health gap, clinicians who work within a physical health focused setting often find themselves faced with barriers when clients present with mental well-being concerns which negatively impact their engagement with rehabilitation interventions. Mental health and physical health co-morbidities are an increasingly common occurrence; however, there is a lack of literature which explicitly links the two and supports therapists in finding proactive solutions which align with their unique skillset to help to bridge this gap.

Objectives

This research was conducted to identify what is currently known about the skills, strategies, and techniques used within occupational therapy practice to promote mental well-being within a physical health setting; and to collate this information in the form of a scoping review for the occupational therapy community to access.

Method

A scoping review methodology was used to achieve the outlined objectives and explore the given research topic. A *priori* protocol, informed by the Preferred Reporting Items for Systematic Review and Meta-analysis Extension for Scoping Reviews (PRISMA-ScR) and the Joanna

Briggs Institute, guided the researcher through a ten-step review process. While using a consistent search strategy, four online databases (ProQuest, EBSCOhost, Gale Cengage, & Google Scholar) were utilized to locate articles with relevance to the research topic. Articles were examined according to the predetermined eligibility criteria at the article title, abstract, and full-text level. A data extraction process also assisted the researcher in the manual evaluation of each of the articles during the level-two screening process. Ten percent of all articles were randomly selected to be independently verified by a research supervisor to ensure validity and consistency. Completion of this process yielded nine final scoping articles.

Findings

Information extracted from the nine final scoping articles was collated and grouped into themes. Collectively, the articles provided insight about what is known about the facilitators and barriers to addressing psychological well-being within clinical settings; the relationship between occupation and well-being; positive changes recommended for occupational therapy and healthcare service delivery to more prominently encompass well-being values; effective approaches for enhancing the mental and holistic well-being of all individuals; specific interventions and strategies with therapeutic attributes; and assessments which can be added to the occupational therapist's toolkit to consistently address the mental well-being of their client throughout the rehabilitation recovery process.

Conclusions

The occupational therapist's unique occupational identity and informed, therapeutic, holistic, and person-centered skillset makes members of this profession equipped and capable leaders during a shift in healthcare service delivery which focuses on mental well-being promotion and the prioritization of subjectively measured holistic well-being outcomes. Although there are current barriers which decrease clinician's self-efficacy to effectively address a client's mental well-being within a physical health setting, there are many solutions which can be implemented alongside regular therapy interventions to enhance the experience of the service user. Conclusions drawn from the collated evidence outlined within this review indicate that the

mental/physical health gap can be minimized by normalizing well-being as a standard practice; integrating positive mental well-being strategies into primary care; and increasing the use of person-centered practices which demonstrate cultural responsiveness, provide opportunities for spiritual expression, and facilitate creative interventions with respect to the individuality of each person. These interventions can easily be integrated into an occupation identity well-being perspective, which provides a unique occupational therapy slant to supporting well-being.

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Chapter One: Introduction

Rationale

This scoping review has been completed in the form of a thesis for the purpose of obtaining a master's qualification from the Otago Polytechnic Occupational Therapy Master's Programme.

The researcher of this review is an occupational therapy student who currently lives in Vancouver, Washington, but who's family roots originate in the beautiful Aotearoa, New Zealand. After obtaining a Bachelor's degree and a Post-graduate certificate in occupational therapy, the researcher has completed this thesis to achieve a Master's degree qualification in hopes of fulfilling the requirements of an occupational therapist to work within the United States. It is for this reason that this thesis has been written with applicability to both the United States and New Zealand, and hopefully, the global occupational therapy community. The topic of this scoping review and thesis is one that aligns with the researcher's professional passions and experiences. In addition, the researcher consulted with several members of the occupational therapy community to ensure that the topic being covered fulfills a need for occupational therapy literature and practice.

An introduction to the relationship between occupational therapy and well-being

The World Federation of Occupational Therapy (WFOT) provides the following definition of the occupational therapy profession:

> "Occupational therapy is a client-centered health profession concerned with promoting health and well-being through occupation. The primary goal of occupational therapy is to enable people to participate in the activities of everyday life. Occupational therapists achieve this outcome by working with people and communities to enhance their ability to engage in the occupations they want to, need to, or are expected to do, or by modifying the occupation or the environment to better support their occupational engagement." (WFOT, 2012, para. 1).

Within the first line of the WFOT description of occupational therapy, it is mentioned that health and well-being promotion is a primary concern of the occupational therapy profession; therefore, it can be implied that occupational therapy and well-being are inherently linked and share an interconnected relationship. In order to further explore this relationship, a brief history of the occupational therapy paradigms is provided along with literature which predicts the upcoming paradigm shift in occupational therapy and healthcare. Well-being, mental well-being, and holistic well-being are concepts embedded within the core of occupational therapy and are repeatedly mentioned throughout this scoping review. In order to provide the reader with an understanding of these concepts, brief definitions are included. The chapter will conclude with an overview of the thesis, as well as a short description of what each chapter will entail.

Occupational therapy paradigms over the ages

Since the development of the profession, occupational therapy paradigms have created a standard for practice to best serve the population. As the needs of those who participate in occupational therapy change, the occupational therapy paradigms shift with them.

Towards the original development of the occupational therapy profession, significant worldly events such as the mental hygiene movement, the industrial era and World War II shaped the first occupational therapy paradigm, “the occupation paradigm.” This paradigm holds a strong foundational meaning to the occupational therapy profession and is significant to its history. Occupational therapists played a huge role in the de-institutionalization of individuals with mental illness and helped to integrate them into more therapeutic, compassionate treatment centers. The occupation paradigm links occupation to health, connects the mind and the body, and describes the importance of balance between self-care, work, and play. Another focal point of this paradigm revolved around the interdependent relationship between the mind, body, and environment. Guided by the occupation paradigm, occupational therapists within this era created therapeutic environments for their patients and encouraged engagement in activities to restore motivation and self-efficacy. During this time, most occupational therapy services were a free addition to medical care, meaning the occupational therapists received a lot of freedom to facilitate creative interventions. During the Second World War, occupational therapists

facilitated physical rehabilitation interventions for individuals who were recovering from war-related injuries, as well as everyday automobile/industrial accidents. The strong foundational occupation-focused philosophy of the occupational therapy profession enabled therapists of this era to address both mental and physical dysfunction according to the needs of each patient (Matuska, 2010; Christiansen & Haertl, 2014).

The next occupational therapy paradigm, "the mechanistic paradigm," occurred during a spike in technological developments and diagnostic measures. During this era, reductionism was a key goal in healthcare and more scientific measures were prioritized to establish proof of effectiveness of practices. As other healthcare professions advanced in this way, occupational therapy's holistic view of people was often criticized. As a result, occupational therapy allied with the medical model and prioritized evidence-based practices; however, remained focused on treating the whole person, while advocating for their own credibility. Occupational therapists began to focus on function and the role that occupational therapy had in treating neurological and anatomical dysfunction. There were positive and negative effects from this paradigm shift. Positively, the occupational therapy role became established within many settings, and the importance of the profession was being recognized by many. It was during this era that clear roles for occupational therapy began to emerge and be distinguished from one another. Occupational therapists chose to practice in primarily physical health settings or mental health settings. As occupational therapy was starting to become highly valued in a range of settings, occupational therapists branched out into specialty areas and developed different niches for their practice (Matuska, 2010; Hocking, et al., 2015).

However, it is said that occupational therapists lost touch with the profession's roots during this era, spurring the next occupational therapy paradigm shift. "The Science of Occupation," today's paradigm, merges the rich scientific knowledge and evidence-based approach established within the mechanistic paradigm with the holistic perspectives brought to fruition during the occupation paradigm, providing a fundamental view of the whole person for occupational therapists to guide their practice in today's world. This is a paradigm that reflects and represents the wealth and breadth of knowledge gained throughout the entire history of the occupational therapy profession, which enables therapists to identify areas of dysfunction which impact a person's

occupational performance and use research and creativity to develop personalized interventions to better serve today's population (Ikiugu, 2010). However; it is also important to note that the claim that todays paradigm for all occupational therapists is "the science of occupation" may not be applicable within countries where health is still entrenched in a medical model.

Pizzi and Richards suggest that another paradigm shift is currently occurring to prioritize well-being, quality of life, and occupational participation to increase cultural relativism and respect the individuality of each person. The focal point of this paradigm will be to emphasize a person's occupational participation within their social, physical, cultural, economic, political, and temporal contexts, and to move away from a strictly westernized approach to better cater to the needs of all people in every part of the world (Pizzi & Richards, 2017).

Well-being, mental well-being, and holistic well-being

Well-being is measured subjectively, causing definitions to vary; however, can be described as the presence of positive emotions and feelings, such as happiness and contentment, and an overall sense of satisfaction with life and oneself (CDC, 2018). Furthermore, well-being can be categorized into eight dimensions: physical, mental/emotional, social, cultural/spiritual, financial, environmental, intellectual, and vocational. Physical well-being refers to an individual's physical health and is related to healthy daily habits, the ability to exercise and engage in physical activities, and effective management of any physical conditions. Mental/emotional well-being relates to positive feelings and views of oneself and the world. Elements which impact mental/emotional well-being include self-image, self-control, self-esteem, self-awareness, love, identity, the ability to cope when faced with adverse situations, and create satisfying relationships. Social well-being occurs when an individual is able to establish connections to others and have healthy support systems within their life. A person's cultural or spiritual well-being encompasses core values and belief systems. Cultural/spiritual well-being relates to feelings of peace, purpose, and meaning, and can be achieved when presented with opportunities to connect to one's culture and engage in spiritual activities. Financial well-being relates to an individual's ability to live within their means, with adequate funds to lead a satisfying life. Similarly, environmental well-being is achieved when an individual has access to

resources within their environment which enable positive and healthy living, such as food, water, shelter, and safety. A person's environmental well-being may be enhanced when their environment is conducive to the task and roles carried out within it. Intellectual well-being refers to an individual's access to education and the ability to think critically, express creativity, and expand knowledge, skills, and levels of understanding. Finally, vocational well-being relates to an individual's paid or volunteer roles, which provide them with either financial means, or fulfills personal needs (Su-Kubricht, 2019).

Mental well-being and mental health are closely related terms; however, mental well-being is often used independently from mental illness, and is an inclusive term that can be used to examine the subjective experience of all people, regardless of their mental health status. Mental well-being and mental health can also interact with and influence one another (McAneney, et al., 2015). For example, if a person is experiencing low mental well-being for an extended period of time, this could lead to a mental health diagnosis, or on the other hand, a person could have a mental health diagnosis, but could experience long periods of time where they are able to maintain good mental well-being. Mental well-being is less concerned with the absence of negative thoughts and/or feelings than it is with how an individual is able to understand and cope when faced with challenging or difficult situations (Ozorio, 2011). A person with good mental well-being is often someone who is able to understand and manage their emotions, feel confident in themselves, obtain and maintain positive relationships and connections with others, feels a sense of purpose for their life, finds ways to live productively, copes well with everyday stressors, and is able to adapt with change. Mental well-being can be impacted by big events and/or everyday occurrences, and it is up to a person's behaviors and habits to determine how big of an impact certain experiences have on their mental well-being (Chartered Accountants Benevolent Association, 2021).

Holistic well-being describes the interconnected relationship between a person's physical well-being, mental well-being, social well-being, and spiritual well-being. Holistic approaches to wellness encompass activities, exercises, or experiences which tend to or care for the mind, body, and spirit of an individual. It is believed that when a person connects their mind, body, and spirit, they can optimize their overall well-being and health (Pang, 2021).

Although these definitions are person-focused and provide a well-rounded perspective, they are divorced from context. Different geographical, professional, cultural, and practice contexts potentially influence the meaning attached to well-being and how it is defined. This review provides a context in which well-being can be discussed.

The following chapters of this thesis describe literature which lends itself to the development of the scoping review topic, a research process outlined by the scoping review methodology, a collection of data, and a discussion of data with correspondence to the overarching focus of this review, which is related to mental well-being promotion with an occupational therapy scope within a physical health practice context.

Overview of scoping review/thesis

Chapter one, the introductory chapter, provides the reader with an opportunity to get to know the researcher, and form a baseline understanding of the concepts which are closely related to the research topic presented within this scoping review.

Chapter two outlines the literature review that took place as a preliminary search to determine gaps in occupational therapy literature. The gaps in literature discussed within this chapter provide a justification for the development of the research question for this review.

Chapter three discusses the scoping review methodology and the priori protocol followed throughout the research process. The decision-making processes for each step of this protocol are described and presented in the forms of charts, tables and a flow diagram.

Chapter four reports the results of the scoping review. Individual summaries of each article included within the scoping review are provided and the themes which emerged are identified.

Chapter five is comprised of an in-depth discussion which relates themes and scoping articles to current literature, practice and policy. Clinical implications for occupational therapy, and limitations for this scoping review are outlined.

Finally, *chapter six* summarizes research outcomes and concludes this thesis.

Chapter 2: Contextual background

The topic and research question being explored within this scoping review is closely related to concepts of mental well-being, holistic well-being, and person-centered care, specifically how these can be promoted within the context of occupational therapy with a physiological scope. It has been identified through literature that well-being is highly subjective, and perspectives of well-being differ across cultures. These links are explored through literature and discussed within both a New Zealand context, and a global context.

In order to better understand the scoping review topic and justify the need for this research in occupational therapy literature, the occupational therapy role within mental health and physical rehabilitation/primary care is compared, and the relationship between mental health and physical health is examined. An outline of the available literature describing the use of positive mental well-being promotion in physical health settings is also provided. Collectively, this literature review investigates these concepts to introduce the topics which will be explored using a scoping review methodology, identify a gap in literature which justifies the need for this topic, and explore related literature to ensure there is no or minimal risk of duplication.

Subjectivity, cultural well-being, and person-centered practice

In order to provide a person/whanau centered practice, occupational therapists and other health practitioners must consider and value the subjectivity of well-being to each person and their cultural beliefs. This perspective reflects Pizzi and Richards (2017) statement that occupational therapy is moving into a space of respecting cultural relativism and the individuality of each person. A person's cultural context impacts how they perceive their well-being and the well-being of their community (Hayward & Taylor, 2011).

While examining this topic within a bicultural Aotearoa context, Mason Durie, a highly-valued leader in public and Māori health, well-being and education, paints a picture of how well-being can be achieved for Māori people through a multi-dimensional model, Te Whare Tapa Whā. These dimensions are comprised of whenua (connection with the land/environment), taha tinana (physical well-being), taha hinengaro (mental/emotional well-being), taha wairua (spiritual well-

being), and taha whānau (family well-being). The four pillars of this model constitute both a framework and a metaphor for holistic wellness within a person, and specifically within a Māori health setting. Te Whare Tapa Whā was Durie's response to the individual needs of Māori that were consistently being missed in a Western-centered medical system. This tool has now been widely implemented, not just within Māori health, but within public health settings because of its applicability to the dynamic relationship of well-being between the mental, physical, spiritual, and relational world of an individual (Hopkirk, 2014; Medical Assurance Society, 2020). When one pillar falls, the others are also impacted. Hopkirk (2014) states that without placing the value in the taha hinengaro (mental/emotional), the taha tinana (physical) aspects of the person can not reach occupational balance and flourish.

Outside of the New Zealand context, it is equally important that all cultural backgrounds are acknowledged and that cultural well-being is a consideration for every person who accesses an occupational therapy or healthcare service. It is been discovered that mainstream health services do not cater to the holistic needs of indigenous people, and they are often left with feelings of hopelessness and unmet needs for complete healing and recovery (Hadjipavlou, 2018).

Hadjipavlou, explores this, with the aim to outline what is missing within westernized medicine and which approaches are effective for indigenous people. Within this study, 41 indigenous people from over twenty nations are connected with indigenous Elders and interviewed about their experiences. Many of these participants came from a background of severe social adversity and disruption, but did not feel that the help they were seeking could be found within mainstream services. They expressed that their knowledge often felt under-valued and that they often felt misunderstood or judged when speaking with healthcare professionals. When participating within the elder's program, they described feeling as if they had found a place for healing, where they could laugh and receive gentle guidance, while being respected through a power-sharing relationship. Many participants experienced positive health impacts from this experience and linked this to a sense of strengthened cultural identity and feelings of belonging. With this came feelings of enhanced self-confidence, pride, and self-esteem. Within this program, individuals had the opportunity to share their own experiences with mental health challenges and dis-connection with their spirituality, as well as their understanding of it. In return, they received

cultural-based interventions from a supportive group with indigenous knowledge and were able to develop sustainable coping skills, take control of their healing process, and experience personal and spiritual growth. Results from this study provide a valuable perspective about how big of an impact providing culturally-informed, person-centered care which acknowledges and respects the subjective experiences of an individual has on their healing process, recovery, and confidence in health care services. Providing an individual with cultural support and interventions which align with their beliefs and understanding of themselves is integral to their well-being (Hadjipavlou, 2018). This study further reinforces Pizzi and Richards (2017) statement of the importance of being culturally relevant while providing individualized care.

Occupational therapy within mental health settings

The occupational therapy profession's origins are rooted in mental health. During the early twentieth century, the mental hygiene movement occurred, and occupational therapists stepped in to play a role in deinstitutionalizing individuals with mental illness. In Aotearoa New Zealand, this started in the 1920 and 1930s with programs being developed in Sunnyside Mental Hospital and Templeton Farm Hospital both in Christchurch, as well as Seacliff Hospital, Dunedin. These programs held a focus on engagement in leisure and productive tasks with people with intellectual disabilities or mental health illnesses. By 1938, such initiatives spread to include Auckland Mental Hospital (Horricks, 2009). Overtime, the occupational therapy role has evolved and expanded, shifting to meet the needs of individuals who require support to cope with their mental health challenges, to function in today's society (Castaneda, et al., 2013). The occupational therapy role is transferable to a variety of different mental health conditions and challenges, for individuals of all ages and stages. The need for occupational therapy intervention is present in a variety of settings, such as acute and long-term-care facilities, schools, private and public hospitals, military installations, forensic and juvenile justice centers, employment programs, residential and day programs, private practice, skilled nursing facilities, outpatient clinics, and community-based mental health services. Individuals residing within these settings may be impacted by and need support with addiction, anxiety, depression, schizophrenia, bi-polar disorder, personality disorders, post-traumatic stress syndrome (PTSD), etc. (Champagne & Gray, 2016). Irrespective of setting, age of client, or diagnosis, occupational therapy services

share a common focus relating to occupational engagement and client-centeredness (Keilhofner, 2009). Occupation is described as a basic need for identity formation, quality of life, and participation and engagement in meaningful roles. A person can positively impact their mental health by participating in occupations which bring them closer to achieving recovery goals, and establish deeper connections to their culture, self-view, and social contexts (Kelly, et al., 2010). Therefore, occupation is directly linked to mental health and an individual's recovery (Kelly et al, 2010) as well as maintaining and promoting positive mental health for those people without a formal mental health diagnosis.

Although the occupational therapy role may differ setting to setting, a general set of goals for occupational therapists within a mental health setting are to promote mental health and well-being in all individuals, despite disabilities or barriers; and to improve the quality of life and level of functioning in individuals experiencing mental illness through participation in meaningful activities. Additionally, occupational therapists are skilled in competency enhancement, prevention and risk reduction, symptom management and intervention, and evaluation. Occupational therapists are knowledgable about mental health and functional assessments, which outline an individual's strengths, needs, interests, roles, meaningful occupations, and physical, social, and cultural environments; as well as mental state, risks, triggers, and history (Skaltsi, et al., 2021). Following assessment, an occupational therapist will establish a power-sharing relationship with their client to collaboratively decide on interventions, goals, and how outcomes will be evaluated. A significant role of an occupational therapists is to be an active member within a multi-disciplinary or inter-disciplinary team, comprised of other health professionals and staff. Within this team, an occupational therapist might advocate for their client, share observations of the client's recovery using an occupational perspective, and collaborate for goal achievement (Burroughs, et al., 2016). Additionally, a substantial aspect of the occupational therapy role within a mental health setting is to provide education to both the client and their family/whanau, enabling the client to be as actively involved in their own treatment as possible and ensuring that they have adequate support systems (Burson, et al., 2010; Kelly, et al., 2010).

Occupational therapy within physical rehabilitation and primary care

Settings which are primarily concerned with an individual's physical health include physical rehabilitation and primary care. Physical rehabilitation services may be offered within public and private acute, inpatient, outpatient, and community settings, as well as in specialty clinics and other care facilities. There are also varying scopes of physical rehabilitation settings, which are focused on different areas and functions of the body. Neurological rehabilitation, orthopedic rehabilitation, and neuro-orthopedic rehabilitation are examples of physical rehabilitation practices. An individual may require neurological rehabilitation following a neurological event, such as stroke, traumatic brain injury, spinal cord injury, or if they have a neurological condition which impacts their cognition and/or physical mechanisms. Within this setting area, an individual may work with a team of occupational, physical, and/or speech therapists, as well as a neurologist, nurses and other therapy staff. A person might need orthopedic rehabilitation following a musculoskeletal injury, surgery, and/or to treat chronic conditions. Similar to neurological rehabilitation, a person may work with a team of occupational therapists, physical therapists, orthopedic surgeons, nurses, therapy staff, and other providers. A person might require a combination of both services if they experience both physical and cognitive deficits which impact on their bodily functioning (Dimick, et al., 2009).

Occupational therapists have many skills in specific neurological interventions and tools for rehabilitation; however, what distinguishes the occupational therapy role from other professions within a neurological rehabilitation setting, and any setting in that matter, is the intentional use of occupation as a means of recovery (Napoleone, et al., 2019). Within a neurological rehabilitation setting, occupational therapists work within a multi-disciplinary team to support an individual in re-gaining independence. Within this team, an occupational therapist will use different assessment tools to identify any cognitive deficits or physical dysfunction decreasing occupational performance, any barriers for occupational participation and engagement, and the clients physical, social and cultural contexts, as well as the meaningful tasks and roles carried out within them (Doucet, 2012). The occupational therapist will then work collaboratively with their client, as well as the client's family/whanau and/or support systems to establish a treatment plan which aligns with the client's needs, and decide on occupation-based interventions. Interventions

may be focused on functional cognitive skill development, the implementation of remedial or compensatory strategies, environmental or task modification, administering equipment, neuromuscular re-education, visual-perception training, increasing upper extremity range of motion, sensory modulation techniques, and emotional regulation strategies, depending on the unique needs of each client. Occupational therapists also play a role in prevention of neurological event occurrences, and sustainability of client rehabilitation outcomes (Giles, et al., 2013).

Within an orthopedic rehabilitation setting, occupational therapists typically, but not always, are responsible for the rehabilitation of upper extremities; however, intervene wherever functional performance impairments are identified (Roll & Hardison, 2017). Examples of conditions or injuries that an occupational therapist may treat include fractures; amputations; arthritic and rheumatic diseases; congenital anomalies; crush injuries or trauma; dislocations and subluxations; ligament injury and instability; muscle strains, tears, and avulsions; tendon injuries and conditions; nerve injuries and conditions; pain; replantation and revascularization; wounds and scars; thermal and electrical injuries; and neuromuscular pathologies. Occupational therapists address how an individual's physical dysfunction impact occupational performance and develop a comprehensive plan of care comprised of interventions which meet the individual needs of each client. Interventions might include therapeutic activities; therapeutic exercise; orthotic design, fabrication, fitting, and training; splinting; joint protection and/or energy modification in home, work, school, or leisure activities; sensory re-education; mirror therapy; pain management; work conditioning or work hardening; training in activities of daily living and adaptive or assistive devices; and education for post-surgical or post-injury safety (AOTA, 2014).

Primary care facilities are also focused on a person's physical health. People access primary health care to stay on top of their overall health, and to coordinate with nurses, doctors and specialists to establish a plan of care to optimize their health, well-being, and quality of life, as well as to determine treatment care plans for a wide range of health conditions. Today's health care systems are undergoing a period of rapid change, where integrated delivery systems are

being prioritized in order to better serve the needs of the people (Primary care and mental health, 2021).

Although the occupational therapy role in primary health care is not yet well-defined, this is a direction for the future, and the implications of this potential role are touched on within this scoping review. Pizzi and Richards (2017) suggest that occupational therapists now have more profound opportunities to make a commitment to focus on promoting health, well-being and quality of life, and that supporting and enhancing these coping mechanisms to minimize this shift or disruption is a practice area underdeveloped in the area of physical rehabilitation (Pizzi & Richards, 2017). With increased knowledge and resources which highlight the link between psychological well-being and physical health and well-being, public health and physical medicine is undergoing a paradigm shift. This shift is one that moves away from a singular focus of poor physical health, and considers how acknowledgment of mental well-being can improve physical health and longevity (Hernandez, 2017).

The relationship between mental health and physical health

While analyzing the New Zealand Health Survey data, Lockett (2018) examines mental health and physical health co-morbidities in order to better understand the interconnected relationship between the mind and the body. This study classifies anxiety, depression, and bipolar disorder as *internalizing disorders* and identify how these disorders increase the risk of developing physical conditions such as stroke and cardiovascular disease, chronic pain, arthritis, asthma, and diabetes. Results from this study indicate that the relationship between decreased mental health and physical health is bi-directional, meaning that individuals with internalizing disorders demonstrated a greater risk of developing a physical health condition in all areas, and that individuals with physical health conditions were also at a greater risk to develop a mental health disorder. This is shown within the following statistics. The findings of this study indicate that individuals with internalizing disorders are two times likely to have a stroke within their lifetime. Individuals with anxiety and bipolar were 24-64% more likely to have a stroke and individuals with bipolar disorders were 74% more likely. Compared to the general population, individual's with internalizing disorders were 79% more at risk to develop cardiovascular disease than those

without. Individual's with internalizing disorders were 35%-52% more likely to develop a chronic pain condition and individuals with chronic pain were also at a higher risk to experience decreased mental health. This was especially true for depression in that chronic pain and depression share biological pathways and neurotransmitters. Individuals with internalizing disorders were associated with 72% higher risk of arthritis, and individuals with arthritis demonstrate a 69% risk of developing depression. The statistic for asthma was 63% higher for individuals with internalizing disorders. Lastly, individuals with depression were 60% more at risk to develop type 2 diabetes, and individuals with bipolar disorder demonstrated a 98% greater risk.

The authors compared their data with wider international literature and found comparable results across the world. This information demonstrates the clear direct relationship between mental and physical health, and suggests that additional action is required to ensure these statistics can be lowered over time. The authors state that this will require integrated health service delivery and interventions at multiple levels of the healthcare system. They also discuss the need for increased mental health screening within physical health settings, and increased physical health screening within mental health services. Additionally, there is a need for increased training for the healthcare workforce to ensure all healthcare professionals have the knowledge and skills to identify deterioration of mental health, physical health, and can provide access to appropriate care which addresses the whole person (Lockett, 2018).

What is available about how mental well-being is addressed within physical health settings?

There is very limited literature that outlines what occupational therapists can do to facilitate positive mental well-being within physical health settings. However, Booth et al. (2017), Brunero et al. (2012), and Petersen (2019) conducted studies that explore the implementation of mental health training for non-mental health professionals and the effectiveness of this within clinical practice for psychiatry and nursing roles within a primary care setting. Results from these articles indicate that this is an effective action to bridge the gap between mental health care and primary health care, so that clinicians within these areas have a developed sense of knowledge to inform their client interaction skills. These authors also discussed the need for

increased mental health awareness within non-mental health focused settings and state that this needs to be a sustainable process to have the greatest impact (Booth et al., 2017; Brunero, et al., 2012; Petersen, 2019).

Additionally, a systematic review examining mental well-being promotion in primary care settings demonstrated that it is not an adequately established practice area. Across articles, there was an identified lack of understanding about what mental well-being promotion is, and why it is needed within primary care. Other articles which discussed the implementation and evaluation of mental well-being promotion described it as being an effective practice. The main conclusion derived from this article was that more research is needed regarding this topic in order to increase the understanding of the benefits of mental well-being promotion in non-mental health focused settings in order to make it a standard practice (Fernandez, 2015).

Meanwhile, Kirsh's (2019) research outlines how occupational therapists who work within mental health settings promote and maintain overall wellness of their clients, as well as the importance of this role. This is done through the use of creative interventions, positive psychology techniques, group work, education, relaxation techniques, sleep hygiene, therapeutic use of self, and involvement of the client's family/social supports within therapy sessions. Many of the interventions, strategies, and techniques described within this article could have the potential to be implemented within physical settings alongside physical rehabilitation interventions; however, the direct link and implications are not clearly stated within occupational therapy literature.

Similarly, in an article conducted by the AD HOC Committee and the Commission on Practice for the American Journal of Occupational Therapy (2010), the contributing authors discuss how occupational therapists are especially effective in supporting an individual to achieve a positive affective or emotional state, adapt psychological and social functioning to their surrounding environment, choose and engage in productive activities and roles, and develop resilience when presented with adverse situations through positive coping strategies. It is suggested that OT's are able to do this through occupational performance coaching techniques, teaching and education skills, improving self-esteem and self-efficacy through behavioral activation, group work and

role play, and the use of positive psychology strategies (AOTA, 2010). The skills, techniques and strategies described throughout this literature are directed toward mental health practitioners; however, have the potential to be implemented within non-mental health focused settings for clinicians who are wanting to be intentional with interaction skills in all occupational therapy scopes of practice.

Identifying and addressing the gap

Mental well-being not only determines how an individual copes with their daily life, but also how they engage in therapy interventions and treatment (AOTA, 2017) When an individual experiences a physical health event that impacts their daily roles, routines and meaningful activities, their mental well-being will also likely be impacted due to the occupational disruption caused by their injury. Even with this knowledge of the impact occupational disruption has on the holistic self, for people engaged in physical rehabilitation, regaining control over their physical body is prioritized by themselves and their therapists. With the physical side of recovery being prioritized, it is often left up to the individual's pre and post-morbid coping mechanisms to determine how large of an impact this event will have on their outlook on themselves, as well as their injury and road to recovery. Supporting and enhancing these coping mechanisms to minimize this shift or disruption is a practice area underdeveloped in the area of physical rehabilitation (Pizzi & Richards, 2017).

With the professional knowledge that rehabilitation engagement and positive outcomes are influenced by a persons coping skills and well-being, responsibility is shared with the therapist to actively consider, discuss and plan for a persons overall well-being within physical rehabilitation treatment planning and therapeutic interactions (Yuill, 2019). Many therapists do not feel prepared or confident to address wellbeing within traditional physical based medical model influenced settings. During an interview with a practicing occupational therapist who works within a neurological rehabilitation clinic, it was reported that due to a lack of positive mental health training within physical health settings, occupational therapists are able to pull from their limited experience with mental health from their initial education to acknowledge mental health concerns, but have limited therapeutic tools and resources to effectively and safely address these

while maintaining their focus on more physical health based interventions (A. Ferguson, personal communication, 7 February, 2020).

When occupational therapists experience low self-efficacy in safely and ethically acknowledging an individual's mental well-being while enabling the recovery of the individuals physical health, their ability to maintain a truly client-centered, holistic practice is compromised (AOTA, 2015). Therefore, there is an immediate need for occupational therapy literature that explicitly addresses the need for increased mental well-being awareness and action within physical health settings. Literature explored within this chapter provides some insight into what is known about well-being, and how a shift in occupational therapy and all healthcare services is occurring to utilize a more holistic approach to care which enhances well-being, quality of life, and health, while bridging the gap between mental and physical health. It has also demonstrated that there is a need for support within evolving area of practice.

Therefore, the intention for this research is to better understand what is already known about strategies that support positive mental well-being that can be transferable to physical health settings and present current knowledge of what occupational therapists and other health professionals can do to address these needs of their clients. This leads to the question that will be explored throughout this scoping review, "What is known about the skills, strategies and techniques used in occupational therapy to promote positive mental well-being within physical health settings?"

Chapter Three: Methods

Throughout this chapter, methodology and the decision making processes that took place in the creation of this scoping review will be discussed in detail, and justified with links to the research question. This will include a discussion which outlines the appropriateness of this method for both the topic of research, and the occupational therapy research community. The chapter will be concluded by outlining each step of the protocol, which was developed for this review according to the Preferred Reporting Items for Systematic Review and Meta-analysis Extension for Scoping Reviews (PRISMA-ScR) and the Joanna Brigg's Institute. The processes described within this chapter were performed by one key researcher and were cross-checked by a supervisor and co-supervisor to ensure consistency.

What is a scoping review?

A scoping review is defined as a type of knowledge synthesis, which summarizes evidence that is available on a topic which fits within a defined inclusion and exclusion criteria. Other types of knowledge syntheses include systematic reviews, meta-analysis, rapid reviews, diagnostic reviews, prognostic reviews, economic reviews, overview of reviews, and other emerging methods; however, a scoping review is one of the newer approaches within this category (Tricco, et al., 2013). Unlike other reviews, a scoping review is an ideal method for emerging areas of research in that the main objective for this type of review is to collate evidence that is meaningful to the topic in order to provide a broad overview of literature, irrespective of study quality. A scoping review utilizes more of an exploratory approach that assists a researcher to systematically map literature to identify key concepts, sources of evidence, current theories and highlight gaps in research (Pham et al., 2014). According to Tricco, et al. (2016) the use of a scoping review method can be deemed appropriate if a researcher is seeking to explore the breadth or extent of evidence of a topic, map and summarize evidence, inform future research possibilities, determine implications for practice and policy, advance knowledge and awareness of a subject, identify key themes, and/or develop a conceptual framework/map (Tricco et al., 2016).

Arksey and O'Malley developed the first official framework for scoping reviews in 2005. The six stages described within this framework include: 1. identifying the research question, 2. identifying relevant studies, 3. study selection, 4. charting the data, 5. collating, summarizing and reporting the results, and 6. consultation. This framework provided researchers with a strong foundation for the scoping review design, that continued to be developed by other theorists over the years. Levac, et al. (2010), used Arksey and O'Malley's work to continue to advance this methodology by enhancing the stages described by the original framework (Colquhoun, et al., 2014). Some of the most recent contributions have been made by the Joanna Briggs Institute (JBI) and by Tricco, et al. (2018), who created the Preferred Reporting Items for Systematic Reviews and Meta-analysis Extension for Scoping Reviews (PRISMA-ScR). The JBI Manual for Evidence Synthesis and the PRISMA-ScR are the core resources used to guide this scoping review. They were selected due to their roots in Arksey and O'Malley's seminal work, but up-to-date additions and enhancements which include all concepts built upon by scoping-review researchers. As mentioned previously, the scoping review approach is still being developed, so using the most recent processes ensures a higher quality scoping review with increased methodological standardization, which adds to the strength of evidence and utility of the research (Pham, et al., 2014).

In order to remain consistent with recommendations for how to conduct a scoping review, both qualitative and quantitative articles were accepted to produce the largest and most diverse search results. Qualitative literature describes subjective experiences and use narrative-based dialogue throughout the text; whereas, quantitative literature uses numeric data as the basis for discussion. Expert opinion pieces were also accepted while searching for articles to complete this scoping review. Articles informed by an expert opinion allow master's of a subject to share their view on a topic by pulling from years of knowledge, experience and clinical practice. This type of knowledge is also valuable for health care research in that the personal perspectives from clinicians themselves makes the information presented relatable to the intended audience. This is especially meaningful for occupational therapy due to the dynamic scope of practice that occupational therapy offers and the transferable skills, interventions and treatment processes that are used across therapy settings (Bradshaw, et al., 2017).

Why is a scoping review needed for this topic and for occupational therapy?

While examining the research question, "What is known about the skills, strategies and techniques used in occupational therapy to promote positive mental well-being within physical health settings?," a scoping review and a systematic review were considered for the design of this study. The complex nature of this topic indicates that there is an immediate need for research with a broader scope as a predecessor for more in-depth research regarding the effectiveness of individual strategies, to be explored in future studies, perhaps even in the form of a systematic review. Although a systematic review may be a more well-known and rigorous form of research, a scoping review is viewed as an equally purposeful, consistent, transparent and structured methodology that can efficiently and effectively locate, analyze, summarize and present literature for occupational therapy practice. It was determined that a scoping review would be a more appropriate design for this topic in that the concept of mental health within physical health settings has not yet been comprehensively examined within occupational therapy literature. Scoping reviews are a newer methodology and have the potential to advance occupational therapy empirical literature within the world of health care research, as well as bridge any gaps that have not been covered in previous years by other methodologies. The positive reputation of this research approach makes this methodology a more desirable option for researchers, and the number of scoping reviews being conducted for occupational therapy is increasing (McKinstry, et al., 2013).

According to McKinstry (2013), other scoping reviews that have been conducted for occupational therapy within a rehabilitation setting include the following topics: a review of current published literature about the role of occupational therapy in falls prevention interventions among community-dwelling older adults (Leland, et al., 2012), to examine and describe the contribution of the journal titled WORK to the literature to improve work-related outcomes for individuals presenting with chronic pain (Gangapersad, et al., 2010), to examine and describe the contribution of the journal titles WORK to the prevention, assessment and rehabilitation literature on low back pain and its relationship to employment (Ravenek, et al., 2010), to understand how theory is applied in knowledge translation research in occupational therapy (Colquhoun, et al., 2010), to identify current knowledge on immigration and its impact

on people's daily occupations (Bennett, et al., 2012), to review the evidence of the effectiveness of community occupational therapy services in improving occupational outcomes of adults with chronic disease (Hand, et al., 2011), to investigate occupational therapy practice and utilization patterns in home health-care contexts (Craig, 2012), to review the use of Photovoice research methodology in occupational therapy investigations (Lal, et al., 2012), and to find out ways of integrating health literacy into occupational therapy practice (Lavasseur & Carrier, 2012; McKinstry, et al., 2013). Although this knowledge may not be indicative of all scoping reviews that have been completed within occupational therapy-focused literature, the nine articles mentioned above do not contain subjects similar to the topic of this scoping review, demonstrating a low risk that duplication will occur and providing additional justification for this topic, in that it has not yet been studied using this methodology.

By addressing the various skills, strategies and techniques used to promote well-being within these settings, this scoping review will provide information regarding how occupational therapists can intentionally use these tools to promote more positive well-being and practice more holistically in non-mental health focused practice settings while addressing physical rehabilitation. Following the scoping review protocol will help to collate any relevant research into one document that occupational therapists and other clinicians can refer to as a one-stop resource to gain multiple different perspectives on this topic, along with recommendations to enhance their practice.

Scoping review protocol

The Preferred Reporting Items for Systematic Reviews and Meta-analysis Extension for Scoping Reviews (PRISMA-ScR) was used to frame this scoping review, along with The Joanna Brigg's Institute (Peters, et al., 2015) to ensure consistency (Peters et al., 2015; PRISMA-ScR, n.d.;Tricco et al., 2016). The Joanna Brigg's Institute (Peters et al, 2015) recommends using the following steps for guidance to successfully complete a scoping review. The ten-step protocol that was utilized for this scoping review is described below, along with decision-making justifications for each step.

Step 1, scoping review protocol: The first step of the scoping review process is to develop a *priori* protocol. The purpose of this type of scoping review protocol is to pre-define the review objectives, methods and reporting strategies prior to the start of research. This step takes place prior to the start of research, which adds transparency to the process and limits reporting bias. Following a detailed protocol allows a researcher to stay organized, task-orientated and focused (Peters, et al., 2020).

Step 2, develop a title, research question and research objectives for the review: The next step within this process is to allocate a title for the scoping review that is indicative of the research question and objectives. The title that was created for this topic is, "Maintaining client mental well-being within a physical health setting through therapeutic mechanisms: a scoping review for occupational therapy." This title provides the reader with a sneak-peak of what will be discussed throughout the review, and clearly states which study design will be demonstrated throughout the text. It also relates well to the research question, "What is known about the skills, strategies and techniques used in occupational therapy to promote mental well-being within physical health settings?" It was also important that the title would accurately reflect the objectives of the scoping review, which are to identify which positive mental health strategies, techniques and skills are currently used within occupational therapy practices that promote positive overall health and wellness, and to collate this information in the form of a scoping review for occupational therapists to access. Potential research questions and objectives were brainstormed over a matter of weeks through in-depth discussions with a team of research supervisors, as well as with colleagues and local occupational therapists who specialize in rehabilitation. After weeks of playing around with potential questions and complimenting objectives, we reached a consensus that the question and objectives stated above would describe a topic that fulfills a crucial research need within the occupational therapy community and that it would be best answered in the form of a scoping review due to its broad nature.

Step 3, determine eligibility criteria: The next portion of the protocol is to determine the eligibility criteria. This criterion details which types of articles will be considered by the researcher according to characteristics that are desired for the review, such as specific population groups, concepts and contexts (PCC).

Table 1: PCC – eligibility criteria process

Population	• Adults receiving occupational therapy and/or rehabilitative care
Concept	• Occupation-based, occupation-focused, and occupation-centered. • Mental well-being/holistic well-being
Context	• Physical and/or mental health rehabilitation

Eligibility is often divided into two groups: inclusion criteria and exclusion criteria. Articles are considered for inclusion according to criterion that is determined with congruence to the outlined research title, question and objectives, and are excluded if the article that is being examined does not have an appropriate 'fit' with the type of information that is desired for the review. Eligibility criteria is determined for two levels of screening. Level one screening consists of examining titles and abstracts of potential articles. This process is carried out to eliminate a large portion of articles that lack relevance to the research topic so that level two screening can commence. During the level two screening process, the full-text of the remaining articles is scanned according to the outlined criterion to determine the final list of articles that will be discussed within the scoping review. These articles will be most closely related to the topic and provide the most meaningful information to answer the scoping review question.

The eligibility criteria depicted within Table 2 ensures that the topic of the articles have relevance to an occupational therapy context, includes a population group that is transferable to mental health and/or physical rehabilitation settings, and discusses concepts of occupation-centered, occupation-based and/or occupation-focused strategies for positive mental health promotion. If followed correctly, articles chosen to be included within this scoping review will provide meaningful and valuable information that will fuel a well-rounded discussion portion of the review.

Table 2: Inclusion and Exclusion Criteria

Inclusion Criteria: Level One Screening (Titles & Abstracts)
▪ **Articles must be published in English** ▪ **Articles must be published between the years of 2000-2020** ▪ **Articles must be available in full-text from at least one of the allocated online databases** ▪ **Articles must be a peer-reviewed journal** ▪ **The keyword "well-being" must be present within the title of the article** ▪ **Within the abstract of the article, the keyword "well-being" must be present, along with at least two of the reminding keywords: "mental health," "physical rehabilitation," "occupational therapy," and "interventions OR strategies OR skills OR techniques"**
Inclusion Criteria: Level Two Screening (Full-Text)
▪ **The full-text of the article must have at least 6 of the following keywords: "mental health," "health," "physical rehabilitation," "rehabilitation," "occupational therapy," and "interventions OR strategies OR skills OR techniques"** ▪ **The article full-text must describe a population group that could be transferable to a mental and/or physical health rehabilitation setting** ▪ **The full-text of the article must have clear links to occupational therapy concepts of occupation-centered, occupation-based and/or occupation-focused as described by Fisher (2013)**
Exclusion Criteria: Level One and Two
▪ **Article does not meet the stated inclusion criteria** ▪ **The the outlined population group explored within the article is kids/youth/children, older persons/end of life care and/or vocational/occupational health settings** ▪ **The information discussed within the article is not meaningful to the scoping review topic (to be determined by the researcher)**

Step 4, search strategy: Once eligibility criteria is set, the researcher can begin to apply a consistent search strategy to multiple online databases that will cater to the intended scope of

research. The JBI states that a researcher conducting a scoping review should retrieve articles from two or more databases. In order to remain consistent with this methodological style, four databases were chosen to ensure at least two databases would produce results which would be included within the findings and discussion portions of the review. The databases considered for this review included the Directory or Open Access Journals (DOAJ), the Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed central, the Elton B. Stephens Company host research platform (EBSCOhost), Google Scholar, ProQuest and Gale Cengage. These are commonly used databases within the world of health-care literature and are accessible to most health-care workers or students. These databases were easily accessed by the researcher while located in New Zealand, and in the United States, so it can be inferred that there are minimal barriers for other researchers to locate data within these sources. In order to determine which databases would best serve this scoping review, a broad search using words related to the topic such as "mental health," "physical rehabilitation," "well-being," and "strategies" was completed to see which databases had the most hits, had the most relevant hits, were easiest to navigate and most accommodating to the researcher. The four databases that stood out were Google Scholar, EBSCOhost, ProQuest and Gale Cengage. These were chosen for this review according to the following justifications.

Google Scholar is a database that felt familiar and comfortable. This is a search engine that is popular among clinicians, health professionals and the general population because it does not require a membership and is freely accessible by all. This is meaningful in the case that members from this scoping review's audience wished to take a deeper look at sources used, they can easily navigate this database to find the relevant literature. Although this database encourages a less advanced search strategy, the breadth of literature produced from a search is exceptional. This is supported by results charted in Table 2, where google scholar produced the greatest amount of hits from sources from all over the world. Additionally, Shariff, et al. (2013) completed a study that compared the performance of searches between PubMed and Google Scholar for physicians who were seeking information to guide patient care. According to their results, google scholar retrieved twice as many relevant articles, had similar precision to PubMed and provided significantly greater access to free full-text publications (Shariff, et al., 2013).

The Gale Cengage database provides research solutions for the academic, professional and library markets around the world. This database is most well-known for the accuracy, convenience and breadth of its data for all types of information needs. It was due to these reasons that Gale has been voted "Best Overall Database" by Library Journal Magazine (Massari, 2012). Subjectively, Gale was simple to navigate as it provides clear sections to filter, limit and edit searches.

Similarly to Google Scholar, EBSCOhost is a database that I have utilized in previous degrees and educational experiences. This database was particularly appealing in that it is one of the world's largest education databases, includes a wide range of subjects, and helps to guide researchers in the right direction while browsing through the result refining menu. Within this function, a researcher can limit results to only display articles that provide a full-text, a specific publication date window, narrow source types and it provides a pre-view of article results according to subjects related to the search. As seen in Table 2, all search terms were able to be applied with ease. This database also produced the largest number of final articles for this phase of the review.

ProQuest provides researchers with a variety of multidisciplinary content, including literature that fits under business, arts, literature and language, history, society and culture, and healthcare and wellness topics. Within the area of healthcare and wellness, ProQuest supplies literature regarding medicine, nursing, psychology, evidence summaries, surgery, industrial health, disease and drug research, family health, allied health and more. Table 3 presents the search strategy used for each database and the results produced.

Table 3: Search Strategy with Hits from Google Scholar, ProQuest, Gale Cengage and EBSCOhost databases

21st April, 2020

Search Terms	**ProQuest**	**EBSCOhost**	**Google Scholar**	**Gale Cengage**
"Well-being"	336,645	240,395	1,930,000	168,613

-full text articles only -Peer reviewed article Limit to 2000-2020				
AND "Mental health"	143,768	128,370	460,000	41,553
AND "Physical rehabilitation"	23,347	26,364	19,700	1,258
AND "Occupational therapy"	5,884	8,620	20,800	408
AND "Interventions or strategies or skills or techniques"	5,757	8,443	19,200	391
Limit to articles published in English	5,715	8,275	N/A	N/A
Articles with "Well-being" within the title	98	135	N/A	5
NOT kids or youth or children	35	55 – 38 when duplicates are eliminated	17,200 *scan the first 50 articles for inclusion	2 – duplicates from ProQuest and EBSCOhost

			criteria or eliminate database : 24 available in full text	

(* indicates actions taken by the researcher to narrow results in order to make the search more feasible, N/A indicates that the search strategy techniques listed in column one – "search terms," were not available as options in that particular database)

Step 5, evidence selection: Step five describes the process in which sources of evidence are selected for the review. The level one and level two screening processes used within the scoping review methodology narrow results and disqualify articles. During level one screening, the researcher examines the titles and abstracts of each article, while referencing inclusion and exclusion criteria for decision making. Once this step is complete, the articles that passed level one screening move on to level two screening, where the full-text of the literature is studied. Ten percent of all articles were randomly selected to be independently verified by a research supervisor to ensure validity and consistency. Conversations between the researcher and the supervisory team were had to make sure everyone was agreeable as to which articles were included/excluded based on the given criterion. Each article examined was documented, along with it's qualifying or disqualifying qualities. Articles that met inclusion criteria for level one screening can be located in Appendix A, and articles that were excluded during this process can be located in Appendix B.

Step 6, data extraction: The sixth step of this protocol discusses the use of a data extraction chart to record characteristics of studies included within the review. To aid the level two screening process, the researcher completed this step by identifying important characteristics of the 26 articles which remained after completing level one screening. The categories of characteristics that were closely examined were related to inclusion and exclusion criteria, as well as the overall scoping review topic, and helped to distinguish the nine articles that were utilized for this review. These categories included keywords identified within the full-text;

geographical location; practice setting; study aims and objectives; study design and methods; intervention and focus population; occupation-centered, occupation-based and occupation-focused components; and key themes/findings. In order to stay within the scope of a scoping review, this data was analyzed qualitatively and recorded with a descriptive nature. A snapshot of this chart can be viewed below, a data extraction chart including only the nine final articles can be viewed in Chapter 4, and the full chart, with all 26 articles can be viewed in Appendix C.

Figure 1. Snapshot of application for exclusion criteria – level two screening:

Key: Articles highlighted in green meet all inclusion criteria, articles highlighted in yellow, red or pink are excluded due to the reason detailed in the key below.

Key = article meets all inclusion criteria – included for scoping review

= lack of occupation-centred, occupation-based and/or occupation-focused components

= number of keywords does not match inclusion criteria

= setting area does not match population for scoping review

Author/'s + keywords	Location/setting	Study Aim/s	Study design/methods	Intervention and focus population	Occupation centered, based and/or focused component
Vuicic, et al. (2017) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions "strategies" "skills" "techniques" =7/10**	Serbia/Belgrade – mental health	The aim of this study is to understand how spending time and performing horticulture therapy in specially designed urban green environments can improve mental health.	Before and after, post-evaluation using the DASS21 scale as a multimodal method. 21 question questionnaire + 3 sub scales with 7 phrases to describe feelings. Evaluation performed using a quarter-scale. Empirical research.	Nature-based therapy/horticulture therapy to improve mental health and well-being for adults dwelling in urban areas. Control group received occupational art therapy + conventional therapy, intervention group received horticulture therapy. Participants were psychiatric patients who are members of the day hospital of the institute of mental health in Belgrade.	Occupation-based intervention of participating in horticulture activities within a nature-based therapy programme to enhance mental well-being.
Key Findings/Themes: The results of this study have shown that recuperation from stress, depression and anxiety was possible and much more complete when participants were involved in horticulture therapy as a nature-based solution for improving mental health. The horticulture therapy programme at the Jevremovac Botanical Garden had positive influence on patients, through a notable reduction of stress. Horticulture, in a variety of contexts, has proved itself to benefit a wide range of clients' health and wellbeing, involving physical, social or psychological health and enabling vulnerable individuals to reach their true potential.					
Hamed, Tariah & Hawamdeh (2012)	Amman, Jordan – MS service	The purpose of this study is to explore personal factors affecting functioning and well-being in Jordanian patients with MS.	Questionnaire to explore patients perspectives on personal factors affecting their perceived daily	Participants were Jordanian patients with a diagnosis of multiple sclerosis. There was no intervention process discussed; however, the questionairre	No clear occupational factor present within outcomes.

Step 7, present results in the form of diagrams and tables: The PRISMA-ScR and the JBI manual for scoping reviews recommend that researchers plan out how data will be presented, and suggest that this be done in the form of tables, charts and/or diagrams. It is then up to the researcher to decide if information is displayed in a diagrammatic or tabular form, or in more of a descriptive format, depending on which style best aligns with the objectives and scope of the review. As this review is primarily concerned with qualitative data and in-depth discussions, more descriptive formats were justified.

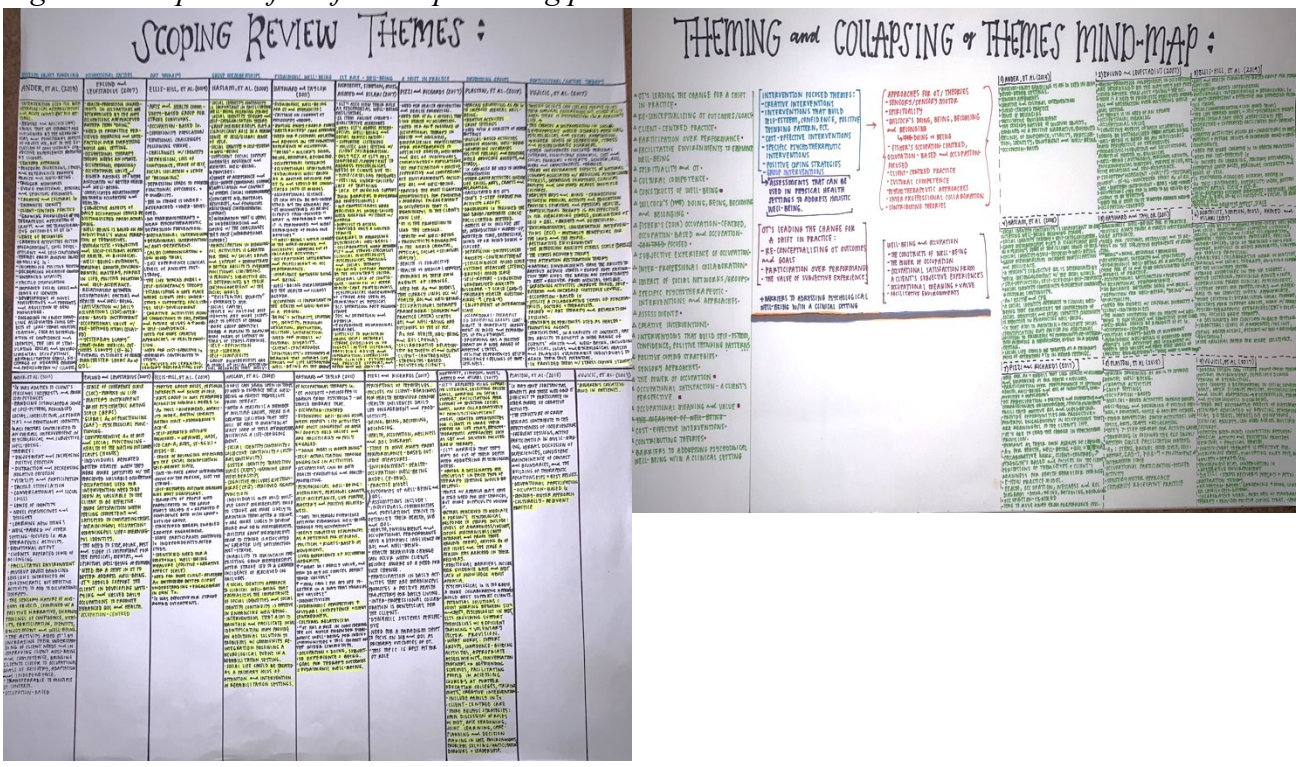
Step 8, develop a flow diagram: Under the scoping review methodology, flow diagrams should be used to demonstrate results and decision-making processes. The flow diagram which displays the process in which the final articles included within this review were found can be seen in Chapter 4, where the findings and themes of articles are discussed.

Step 9, develop themes: While discussing the findings or results of a scoping review, a researcher should compare and contrast articles to identify themes which are meaningful to the

topic and question of the review. The decision-making processes for theme development should be available to readers.

Themes for this scoping review were developed through a four-step process. First, each of the nine final articles were examined, and key information was highlighted. Next, all highlighted information was transferred onto a separate chart. Then, similarities were found amongst the nine articles. Finally, all similarities were collapsed within a separate chart, where themes and sub themes emerged. Theming that took place for this review are discussed in more detail within Chapter 4, and charts can be more closely examined in Appendix D.

Figure 2. Snapshot of the four-step theming process:



Step 10, discussion: The last step of the protocol is concerned with how data is discussed in relation to the research question and objectives, as well as the scope of the review and its intended audience. Chapter 5 of this research discusses the key findings of the review within the context of current literature, policies, and practices. Within this chapter, limitations and clinical implications will also be outlined. It is important to note; however, that the scoping review methodology is not as concerned with the quality of evidence presented within the review as it is

with the depth and breadth of information shared on a topic. A key aim of a scoping review is to open up a field of research, or a gap in literature or practice that can continue to be explored in the future.

Summary

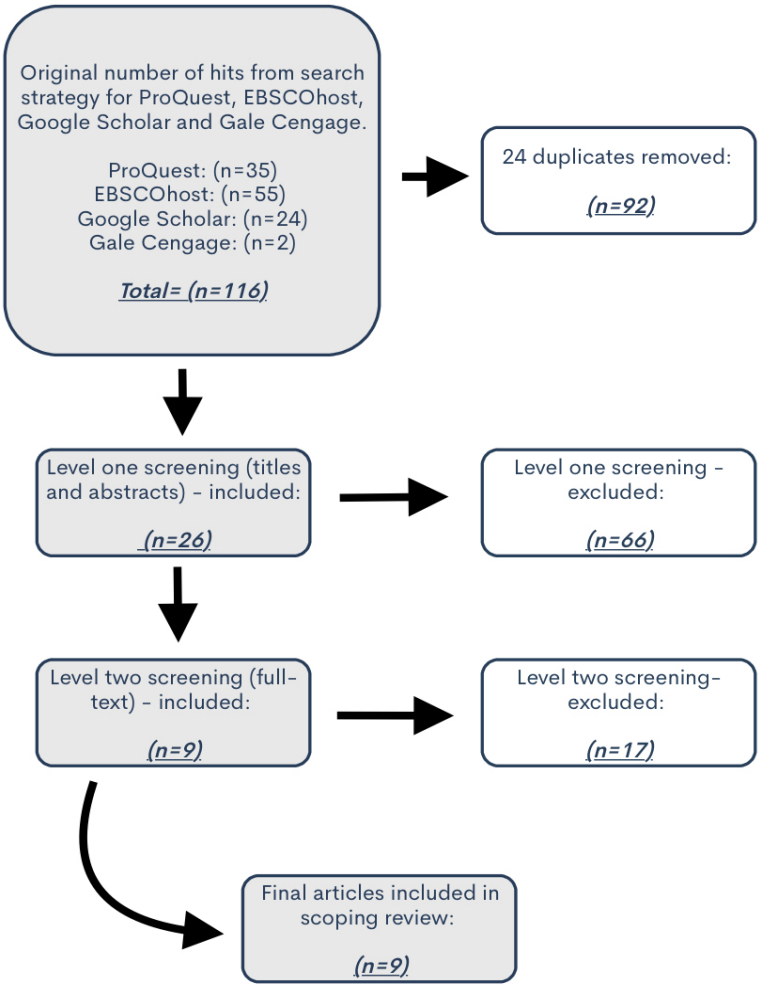
The scoping review methodology has been well-researched in preparation for this scoping review, and has been justified as an appropriate approach for delving deeper into the topic of mental well-being promotion in physically-based settings under an occupational therapy scope. Each step listed within this chapter has a meaningful role in the way that a scoping review is conducted, and guides the researcher through a process.

Chapter Four: Findings

This chapter describes findings derived from the scoping review study selection process. Study characteristics from the final articles will be discussed as well as how the theming process was carried out. Themes and sub-themes will be outlined according to the similarities found when comparing the nine articles, with links made to the research question. Key points, recommendations and meaningful information obtained from the articles will provide evidence for the justification of the creation of themes and will also be discussed throughout this chapter.

Source of evidence selection

Figure 3. Flow diagram detailing study selection



As step nine of the scoping review protocol suggests, a flow diagram was made to demonstrate the selection processes carried out to obtain the final nine articles included within this scoping review. As observable in the figure above, an initial search yielded 116 articles across the four online databases. Duplicates were removed and the titles and abstracts were examined using the level one inclusion criteria, leaving 26 articles to be screened for level two criteria. After reading the full text of those 26 articles, the researcher was left with 9 articles which met all inclusion criteria to be included within this scoping review.

Data extraction

A more detailed record of how level two screening was carried out can be described by a data extraction process, which took place to analyze the characteristics of the 26 articles that met level one inclusion criteria. Keywords, location/setting, study aims, study designs/methods, intervention and focus population, occupation centered, based or focused components, and key findings/themes of each article were recorded during this process. While reading the full-text of each article, the researcher eliminated articles that either did not meet the inclusion criteria or met exclusion criteria (detailed in Table 2). Three articles were excluded from the study due to a lack of occupation-centered, occupation-based, and/or occupation-focused components. Six articles were excluded due to a setting area that was not related to the population group described within the scoping review question. One article was excluded because it did not meet the keyword requirement. Seven articles were eliminated due to multiple excluding factors. This decision making process can be observed in Appendix C which includes the full data extraction chart containing all 26 articles (Appendix C). This left nine articles, which met all inclusion criteria and were deemed qualified for the scoping review (Table 4).

Table 4: Data extraction chart – process used to determine level two screening results.

Key = article meets all inclusion criteria – included for scoping review

Author/'s + keywords	Location/setting	Study Aim/s	Study design/methods	Intervention and focus population	Occupation centered, based and/or focused component
Vujcic, et al. (2017) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions "strategies" "skills" "techniques" =7/10**	Serbia/Belgrade – mental health	The aim of this study is to understand how spending time and performing horticulture therapy in specially designed urban green environments can improve mental health.	Before and after, post-evaluation using the DASS21 scale as a multimodal method. 21 question questionnaire + 3 sub scales with 7 phrases to describe feelings. Evaluation performed using a quarter-scale. Empirical research.	Nature-based therapy/horticulture therapy to improve mental health and well-being for adults dwelling in urban areas. Control group received occupational art therapy + conventional therapy, intervention group received horticulture therapy. Participants were psychiatric patients who are members of the day hospital of the institute of mental health in Belgrade.	Occupation-based intervention of participating in horticulture activities within a nature-based therapy programme to enhance mental well-being.
Key Findings/Themes: The results of this study have shown that recuperation from stress, depression and anxiety was possible and much more complete when participants were involved in horticulture therapy as a nature-based solution for improving mental health. The horticulture therapy program at the Jevremovac Botanical Garden had positive influence on patients, through a notable reduction of stress. Horticulture, in a variety of contexts, has proved itself to benefit a wide range of clients' health and wellbeing, involving physical, social or psychological health and enabling vulnerable individuals to reach their true potential.					
Ander, et al. (2013) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =9/10**	London – inpatient mental health setting with neuro-rehab services	The study investigated the impact of museum object handling sessions on hospital clients receiving occupational therapy in neurological rehabilitation and in an older adult acute inpatient mental health service.	The research used a qualitative approach based on objectivist and constructionist methods, from which themes typical of the object handling sessions were derived.	The use of museum object handling sessions to improve well-being in mental health service users and neuro-rehabilitation clients. Participants were predominantly a retired age group.	Occupation-based intervention of engaging in object handling sessions.
Key Findings/Themes:					

Themes emerging from detailed analysis of discourse involving clients (n = 82) and healthcare staff (n = 8) comprised: distraction and decreasing negative emotion; increasing vitality and participation; tactile stimulation; conversational and social skills; increasing a sense of identity; novel perspectives and thoughts; learning new things; enjoyment and positive emotion. Critical success factors included: -good session facilitation for mitigating insecurity, ward staff support and the use of authentic heritage objects. -Museums and their collections can be a valuable addition to cultural and arts occupations, in particular for long-stay hospital clients. The themes revealed were specific to the rehabilitation and mental health contexts and arose from the variety of client engagement and interaction types, session processes and wellbeing outcomes. Key themes included increasing positive emotion, decreasing negative emotion, enhanced vitality, tactile stimulation, improved social skills and sense of identity, development of novel perspectives and thoughts and acquisition of new knowledge. Findings indicated that engaging with objects alleviated some effects of long-term hospitalization, such as the deterioration of confidence and identity; the loss of stimulating social and environmental occupations; rehabilitation goals; discharge of negative emotions and a preoccupation with illness. In particular, neurologically impaired participants, for whom the effects of hospitalization were extreme and deeply embedded, demonstrated subtle signs of engagement with the objects, and small improvements in wellbeing for which the sensitivity of qualitative methods was appropriate.					
Haslam, et al. (2008) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =7/10**	UK – neuropsychological rehabilitation	To examine the extent to which belonging to multiple groups prior to stroke and the maintenance of those group memberships (as measured by the Exeter Identity Transitions Scales, EXITS) predicted well-being after stroke.	A survey study – qualitative research	Group memberships for individual's who have sustained a stoke – neuropsychological rehabilitation context.	Key element of this piece of research is concerned with participation in group memberships. This could be defined as obtaining an occupational role within a group and/or participating in group activities. This falls under an occupation-centered intervention for individuals recovering from stroke.
Key Findings/Themes: Relationships between group membership measures "individuals who hold multiple group memberships prior to a stroke are more likely to maintain them after the stroke, and are also more likely to develop new group memberships. In addition, the development of new group memberships after a stroke is independent of the maintenance of old group memberships. In other words, the effort taken to maintain old group memberships does not seem to affect individuals' ability to join new groups." Relationships between group memberships and well-being: "Consistent with hypothesis 1 it is apparent that having multiple group memberships prior to the stroke (assessed through both group listings and group affiliation ratings) was associated with greater life satisfaction post-stroke, but was unrelated to chronic stress. Consistent with H2, the maintenance of old group memberships after the stroke (again assessed through both group listings and group affiliation ratings) was also correlated with both well-being measures—being positively correlated with life satisfaction and negatively correlated with stress. Participants' well-being was not associated with the number of new group memberships acquired post-stroke (which might reflect the low number of new groups individuals acquired)." Relationships between cognitive failures and well-being: " there was a significant negative relationship between participants' reports of their cognitive failures and their well-being, such that the more cognitive failures people perceived themselves to have the more dissatisfied they reported being with their life and the more likely they were to experience chronic stress (although the latter effect was only marginally significant; p ¼ .06). Interestingly too, the incidence of perceived cognitive failures was also negatively correlated with participants' reports of their ability to maintain pre-existing group memberships after their stroke."					
Hayward & Taylor (2011) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational**	UK - West Midlands rehabilitation centre	This paper proposes the construct of eudaimonic well-being as both relevant and valuable to occupational therapy in re-conceptualizing the profession, countering some of the central tensions in the identity of the profession and re-asserting that well-being through occupation is for all and for humanity. Also, this paper	Contemporary critique	This article describes a shift in focus of outcomes within occupational therapy practice to be more centered around eudaimonic well-being. The author's perspective provides recommendations for future assessment, intervention and outcome measurement to promote increased client-centeredness and to move toward a more internationalized approach	Article demonstrates occupation-centered perspectives throughout.by consistently linking information presented within the article to occupational therapy practices. The authors highlight throughout the

therapy" "interventions" "strategies" "skills" "techniques" =8/10		proposes that well-being, in a eudaimonic sense, should be advertised and evidenced as a routine outcome of occupational therapy and consolidated into occupational therapy models as a relevant and meaningful concept.		to practice in order to be more inclusive to all of humanity.	articles that occupation-based interventions must be chosen according to the intrinsic aspects of the person.
Key Findings/Themes: This article argues that by including eudaimonic well-being as a core goal of occupational therapy, therapists would better serve diverse cultures and all of humanity. The author provides a strong justification for how eudainomic well-being directly relates to the occupational therapy philosophy and that it can effectively be incorporated into practice to not only enhance client's psychological well-being throughout therapy, but create structure for more client-centered goals and the choosing of occupation-based interventions.					
Plastow, et al. (2018) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =7/10**	Western Cape, South Africa - Private mental health clinic	To examine the effects of an occupational therapist–led African drumming group on mental well-being among adult psychiatric inpatients with mood disorders.	Pilot study – quasi-experimental pre-test, post-test design with no control group.	African drumming sessions as a part of an occupational therapy programme comprised of therapeutic group activities which include life skills, arts and crafts, and relaxation groups. Participants were adults who were already involved with this setting's occupational therapy and inpatient services.	Occupation-based intervention of drumming within a group.
Key Findings/Themes: Occupational therapy–led drumming groups based on the principles of a sensory–motor approach may be an effective intervention to improve positive affect and experiences of enjoyment in adults with acute mood disorders					
Northcott, Simpson, Moss, Ahmed & Hilari (2017) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =9/10**	UK – neuro-rehab	To explore UK speech-and-language therapists' (SLTs) clinical practice in addressing the psychological and social needs of people with aphasia, including their experiences of working with mental health professionals. A 22-item online survey was distributed to UK SLTs via the British Aphasiology Society mailing list and Clinical Excellence Networks. Results were analyzed using descriptive statistics and qualitative content analysis. 124 SLT's participated in this survey.	Online survey	SLT's who replied to this survey described strategies they use in order to address the psychosocial well-being of their clients as well as stated issues/barriers that prevented or decreased their ability to address mental health issues, as well as potential institutional solutions.	Although the focus of this article was to gain a SLT perspective on this issue, engagement in both therapy interventions and social participation was discussed throughout. With an occupation-centered perspective, this article provides many relevant implications for occupational therapy.
Key Findings/Themes: Most SLT's involved with this study reported that they felt that addressing psychological well-being and social participation was a part of their role. Some skills that they used to do this included supportive listening and holistic and collaborative goal setting, which included goals for social participation. Only 42% of SLT's felt confident in effectively and ethically addressing the psychological needs of their clients. The main barriers to addressing psychosocial well-being were time/caseload pressures (72%); feeling under-skilled/lack of training (64%), and lack of ongoing support (61%). The main barriers to referring on to mental health professionals were that mental health professionals were perceived as under-skilled when working with people with aphasia (44%); were difficult to access (41%); and provided only a limited service (37%).					

A main theme from the free-text responses was a concern that those with aphasia, particularly more severe aphasia, received inadequate psychological support due to the stretched nature of many mental health services; mental health professionals lacking skills working with aphasia; and SLTs lacking the necessary time, training and support. The main enablers to addressing psychosocial well-being were collaborative working between SLTs and stroke-specialist clinical psychologists; SLTs with training in providing psychological and social therapy; and ongoing support provided by the voluntary sector. In order to improve psychological services for this client group, this article suggests that stroke-specialist mental health professionals should strive to make their service truly accessible to people with even severe aphasia, which may involve working more closely with SLTs. Further, improving the skills and confidence of SLTs may be an effective way of addressing psychological distress in people with aphasia.					
Ellis-Hill, et al. (2019) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =7/10**	Bournemouth, UK - Stroke rehabilitation setting.	To evaluate (1) the acceptability of 'HeART of Stroke' (HoS), a community-based arts and health group intervention, to increase psychological well-being; and (2) the feasibility of a definitive randomized controlled trial (RCT). The authors also set 9 additional objectives to be met through the completion of this study, which can be found within the methods portion of this article. .	Two-centre, 24-month, parallel-arm RCT feasibility study with qualitative and economic components. 24 individuals participated int his study from start, to finish.	Community-dwelling adults ≤2 years post-stroke recruited via hospital clinical teams/databases or community stroke/rehabilitation teams. Artist-facilitated arts and health group intervention (HoS) (ten 2-hour sessions over 14 weeks) plus usual care (UC) versus UC.	Occupation-based intervention described throughout study.
Key Findings/Themes: Findings indicate that an arts and health intervention is an effective for inpatients, and that this would also be feasible for individuals who have had a stroke and live in the community. Participants reported increased self-confidence both within the arts group as well as outside of the group and more positive emotional well-being.					
Eklund & Leufstadius (2007) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =6/10**	Sweden – Outpatient mental health.	To investigate the relationship between occupational factors–representing a variety of subjective perceptions and actual doing–and self-perceived and interviewer-rated aspects of health and well-being in a sample with persistent mental illness. A further aim was to identify the occupational factors with the strongest relationships to the targeted aspects of health and well-being.	Cross-sectional study with a correlational design. The occupational factors were treated as independent variables and the health-related variables were treated as dependent variables. 103 individuals participated within this study.	Participants consisted of individuals with persistent mental illness who were selected from an outpatient mental health unit. Participants were interviewed by an occupational therapist, using the Satisfaction with Daily Occupations (SDO) interview-based instrument, the Occupational Value with pre-defined items (Oval-pd) questionnaire, the Short Form Medical Outcomes Survey (SF-36), the Swedish version of the Manchester Short Assessment of Quality of Life, the Rosenberg Self-esteem Scale, the Sense of Coherence (SOC) scale, the Brief Psychiatric Rating Scale (BPRS), the Global Assessment of Functioning (GAF), and the Health of the Nation Outcomes Scale (HoNOS). Other tools were also used, such as a 'yesterday dairy.' Data was collected over a period of six months within the outpatient unit.	Occupation-focused and occupation-centered approaches were consistently discussed throughout this article.

Key Findings/Themes: This study showed that the health-promoting ingredients in occupations seemed to be determined by the way occupations were perceived, rather than by the doing per se. This finding gives empirical evidence that occupational therapists should support the client in developing satisfying and valued daily occupations, since that may promote enhanced quality of life and health.					
Pizzi & Richards (2017) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =7/10**	USA – all occupational therapy practice	This article addresses the need for an increased presence of occupational therapy in health and wellness, emphasizing participation over performance, to optimize the health, well- being, and quality of life of individuals, communities, and populations.	Guest editorial	This article addresses the occupational therapy as a whole and is argued to be transferable to all scopes of practice. This article also discusses the use of the Pizzi Health and Wellness Assessment (PHWA) and the Environment-Health-Occupation-Well-being (E-HOW) Model.	Occupation-centered perspective is demonstrated throughout.
Key Findings/Themes: -The promotion of health, well-being, and QOL can and should be included in every client's intervention plan to firmly establish the role of occupational therapy in health care. - A focus on health, and not only on occupational performance and participation, is imperative to move the profession forward. - Having a health focus includes addressing the physical, social, mental and emotional, and cultural aspects of doing, being, becoming, and belonging, which facilitates QOL and well-being. -A paradigm shift in occupational therapy academic institutions and in practice is mandated to carry forward the vision of promoting health, well-being, and QOL. -An expansive opportunity exists for occupational therapy research focused on health, well-being, and QOL to help meet societal needs. -Having both a model and assessments linking health and occupational participation directly, practitioners can begin to substantiate Vision 2025 for occupational therapy, which states, "Occupational therapy maximizes health, well-being, and quality of life for all people, populations, and communities through effective solutions that facilitate participation in everyday living" (AOTA, 2017, p. 1)					

Narrative summaries

Ander, E. E., Thomson, L. J., Blair, K., Noble, G., Menon, U., Lanceley, A., & Chatterjee, H. J. (2013). Using Museum objects to improve wellbeing in mental health service users and neurological rehabilitation clients. *British Journal of Occupational Therapy*, *76*(5), 208-216. https://doi.org/10.4276/030802213x13679275042645

Within this article, a team of occupational therapists, researchers, nurses, university professors and lecturers investigated the impact of museum object handling on the mental well-being of individuals receiving occupational therapy within both neurological rehabilitation and mental health sectors within the United Kingdom. The aim of this research was to examine the influence that the museum object handling sessions had on emotions, feelings and life experiences, as encouraged through tactile interaction with the objects. The authors also conducted this qualitative study to add to the existing research on this topic, but with an occupational therapy perspective that had not yet been discussed in relation to the use of object handling.

Researchers facilitated sixty-six sessions with eighty-five clients over an eighteen month period. Sessions were performed one on one within the rehabilitation wards, but were presented as a group activity within the inpatient mental health unit. Sessions were carried out using a semi-structured interview format, which was created to encourage clients to touch and explore forty-two museum objects from anthropology, archaeology, art, geology and zoology collections. Engagement was intentionally initiated in various ways by using sensory stimulation techniques, providing education about the specific objects, asking open-ended questions that encouraged clients to make personal collections to the items, and by recommending certain items to clients based on their personal interests, values and lived experiences. Data was collected via the staff's reflexive formatted field notes, along with the subjective responses from the clients. Participants were representative of a range of ages, genders, socio-economic groups and occupational roles.

This study utilized a qualitative approach based on objectivist and constructionist methods, from which themes of the object handling sessions were derived. The main themes that arose from a

result of the museum object handling sessions included enjoyment and increased positive emotion, distraction and decreased negative emotion, enhanced vitality and participation, tactile stimulation, improved conversational and social skills, a more established sense of identity, novel perspectives and thoughts and learning new things.

The findings from this study indicate that through engagement with museum objects, long-term hospitalization related effects were alleviated, such as deterioration of identity and confidence, a lack of stimulating environmental and social occupations, the pressure of reaching rehabilitation goals, and pre-occupation with illness and the rate of discharge of negative emotions.

This article highlighted that museum object handling was a therapeutic activity that filled time in between intensive rehabilitation interventions for the clients involved in this study, which created greater balance between recovery-related work and leisure. It was a way for clients to regulate emotions, obtain a sense of regained control of their lives, improve self-esteem and confidence, re-establish their identity and use social, intellectual, physical, emotional and sensory integration skills, somewhat effortlessly. Clients made new friends, discovered new interests, strengthened pre-morbid interests and fulfilled new roles.

In conclusion, museum object handling sessions offered an effective activity to add to occupational therapy to enhance feelings of vitality, confidence, identity, confidence, enjoyment, participation and well-being. These feelings were evoked through the sensory nature of the objects, as well as the positive narrative maintained throughout the sessions. Occupational therapists were able to utilize this creative intervention to better understand their clients needs, bring their clients closer to achieving their rehabilitation goals for recovery, increase their clients independence, and provide a meaningful occupation for clients to engage in that was beneficial to their health, well-being and identity. Additionally, this research is transferable across occupational therapy settings to be used with a wide range of clients and occupational needs.

Eklund, M., & Leufstadius, C. (2007). Relationships between occupational factors and health and well-being in individuals with persistent mental illness living in the

community. *Canadian Journal of Occupational Therapy*, *74*(4), 303-313. https://doi.org/10.1177/000841740707400403

This cross-sectional study was completed to identify the relationship between occupational factors and health and well-being in individuals with mental illness. The authors of this study highlight the fact that occupational therapy promotes the belief that participation in meaningful occupations positively influences a person's health and well-being through the development of a social and personal identity; however, they also believe that the research pertaining to the mechanisms in which occupation promotes health, well-being and recovery is limited and that the nature of this topic is rather complicated in that both well-being and occupation are multi-faceted subjects. While examining literature, it was clear that satisfaction with daily occupations, perceived occupational value and perceived occupational meaning were some of the main contributors to the health-promoting agents in occupations. Within this article, the subjective aspects of daily occupation are looked at separately from the actual 'doing' of the occupation to examine which has the greater impact on the health of the individual and the authors explored occupational factors and well-being from all angles.

This is a cross-sectional study that utilizes a correlational design, with the occupational factors acting as independent variables and health-related variables as dependent variables. Participants included adults aged twenty to fifty-five who were chosen from an outpatient mental health unit in Sweden. One hundred and five participants were randomly selected for this study. In order to measure the subjective occupational factors, researchers implemented the Satisfaction with Daily Occupations (SDO) interview-based instrument. Occupational value was determined by the assessment of Occupational Value with pre-defined items (Oval-pd). This is an assessment based on self-ratings from a twenty-six item questionnaire. Another tool used to examine aspects of actual doing was a yesterday diary, where participants were instructed to document time engaging in self-care, self-maintenance, work/education, leisure, rest and sleep activities on a typical weekday. The Short Form – Medical Outcomes Survey (SF-36), Manchester Short Assessment of Quality of Life, the Sense of Coherence instrument, a self-esteem scale and self-report were also used to assess well-being throughout this study. In order to measure health and functioning, the Brief Psychiatric Rating Scale (BPRS), Global Assessment of Functioning (gag)

and a comprehensive assessment of mental health and social functioning was conducted according to the Health of the Nation Outcomes Scale (HoNOS) were used.

Conclusions from this study indicated that the health-promoting agents in occupations were for the most part, determined by how occupations were perceived rather than the actual doing. Participants perceived activities that held strong personal value as having the greatest positive impact on their health and well-being. This evidence supports occupational therapists to encourage their clients to develop satisfying and meaningful occupations to promote enhanced health, well-being and quality of life.

Ellis-Hill, C., Thomas, S., Gracey, F., Lamont-Robinson, C., Cant, R., Marques, E. M. R., Thomas, P. W., Grant, M., Nunn, S., Paling, T., Thomas, C., Werson, A., Galvin, K. T., Reynolds, F., & Jenkinson, D. (2019). HeART of Stroke: Randomised controlled, parallel-Arm, feasibility study of a community-based arts and health intervention plus usual care compared with usual care to increase psychological well-being in people following a stroke. *BMJ Open, 9*(3). https://doi.org/10.1136/bmjopen-2017-021098

The purpose of this feasibility study was to evaluate the acceptability of a community-based arts and health group intervention to increase psychological well-being of those who have sustained a stroke and to determine the feasibility of an RCT for this topic. Other objectives for this research were to assess the acceptability of key aspects of study design, randomization and recruitment processes, and of the HoS group intervention; estimate recruitment and short-term retention rates; estimate HoS group attendance rates; assess the sustainability of the outcome measures and feasibility of the assessment strategy; refine the selection of the outcome measures, in particular to help inform the selection of the primary outcome for the full-scale RCT; explore, qualitatively, individual's experiences of participating in the study and gather feedback about the intervention and outcome measures; collect data on the SDs of outcome measures to inform a sample size calculation for a larger trial to obtain preliminary estimates of effect size; refine the HoS group intervention and its delivery; explore differences in processes between the two study centers; identify, measure and value resources requires to deliver the intervention in the community; and

develop and pilot data collection tools to measure resources use in the follow-up period to inform the design of a future within-trial economic evaluation and estimate the cost of delivering HoS.

In order to achieve these objectives, a team of neurological rehabilitation specialists and researchers facilitated a two centre, parallel-arm, randomized controlled feasibility study to compare the HoS group intervention alongside usual care as opposed to usual care, alone. Economic and qualitative components are described throughout. Participants consisted of adults who were living in the community up to two years post-stroke, who were also experiencing decreased mental health. All participants provided informed consent, and randomization and blinding were used to eliminate bias. The intervention examined throughout this study was a arts and health group, facilitated by arts and health practitioners. Some outcome measures used to determine the effects of the group on the participant's well-being included the Warwick-Edinburgh Mental Well-being Scale (WEMWBS), Hospital Anxiety and Depression Scale (HADS), ICEpop CAP ability measure for adults (ICE-CAP-A), the Rosenberg Self-Esteem Scale (RSES), the Medical Outcomes Short Form Health Survey (SF-36 V.1), and the Head Injury Semantic Differential Scale (HISDS-III).

Conclusions from this article indicate that a RCT exploring this study topic is both cost-effective and feasible, and that an arts and health group in the community is an effective and sustainable intervention for stroke survivors to increase their well-being following rehabilitation.

Haslam, C., Holme, A., Haslam, S. A., Iyer, A., Jetten, J., & Williams, W. H. (2008). Maintaining group memberships: Social identity continuity predicts well-being after stroke. ***Neuropsychological Rehabilitation, 18*****(5-6), 671-691. https://doi.org/10.1080/09602010701643449**

The purpose of this article was to examine how maintaining group memberships influences social identity continuity and predicts well-being following stroke. The authors discuss the social identity theory and self-categorization theory, as well as other well-researched concepts regarding group memberships to justify the need for this topic. Facilitators of this study

distributed a four-page questionnaire to 53 consenting stroke patients within the UK. This study had a qualitative design and used subjective measures to gain data.

Results from this study aligned with the hypotheses set by the authors in that individuals reported greater life satisfaction and well-being when memberships that they had prior to a stroke were able to be maintained following stroke. Individuals who belonged to multiple group memberships before a stroke also had a higher chance of preserving their social identities following stroke. These results demonstrated that a supportive social context plays a significant role in an individuals adjustment after a life transition or time of stress.

A lack of a social identity can lead to decreased physical and mental well-being, which puts a person at greater risk for future disease and/or disability. This process is described within a schematic representation which shows that when an individual belongs to multiple groups, they have multiple bases of social identification. Therefore; when presented with a life transition that could potentially threaten their social identity, they have a better chance of maintaining their group memberships and social identity, ultimately positively impacting their well-being following the life transition and strengthening their social identity.

Conclusions of this article support the use of a social identity approach and other social psychological approaches in post-stroke rehabilitation to enhance well-being and to further prevent deterioration. The authors state that the maintenance and/or repair of a client's social life should be considered a primary focus of intervention.

Hayward, C., & Taylor, J. (2011). Eudaimonic well-being: Its importance and relevance to occupational therapy for humanity. *Occupational Therapy International, 18*(3), 133-141. https://doi.org/10.1002/oti.316

This contemporary critique. presents the concept of eudaimonic well-being and its potential as a primary focus for occupational therapy. Authors, Claire Hayward and Jackie Taylor, address the westernized view of today's health care system, and discuss occupational therapy philosophy and theory to provide a more progressive, culturally responsive approach to better address

client's holistic well-being. Additional concepts incorporated within this discussion are cultural relativism, the value of "being," occupational integrity, and spirituality.

This article calls for an overall re-conceptualization of occupational therapy outcomes to better serve all of humanity, rather than purely one demographic of the westernized community. In order to do this, it is suggested that the client's subjective view of their well-being should be a core evaluation measure and that well-being and specifically, eudaimonic well-being always be an end product of occupational therapy intervention. The authors justify eudaimonic well-being as a well-matched fit for occupational therapy in that it is achieved when an individuals life activities are congruent with their deep-held values, and when holistically and fully engaged in these meaningful activities. A person will achieve a sense of self-actualization and authenticity through eudaimonic experiences which involve participating in occupations that appropriately challenge an individuals, enabling them to exercise personal skills and abilities.

While discussing the origins of occupational therapy, the authors encourage therapists to embrace the underpinning of psychology embedded in occupational science concepts that form the basis of the profession and link health to occupation. They continue to justify this recommendation by highlighting that psychology is largely centered around well-being, specifically hedonic and eudaimonic well-being, so pulling from psychology theory, literature and concepts can support occupational therapists in taking on a more progressive role in the promotion of health, well-being and quality of life. Cultural well-being and spirituality are another commonality of psychology and occupational therapy philosophies. These are also highly valued dimensions of eudaimonic well-being, which is why the authors are so passionate about eudaimonic well-being becoming a regular outcome of occupational therapy, to better serve humanity as a whole and people of all cultures.

In conclusion, a strong point is made within this article that there is a necessary change or shift needed for the occupational therapy profession in all scopes of practice. Authors thoroughly discuss how occupational therapists can re-conceptualize how they measure client outcomes to provide a more culturally responsive service where each client can achieve eudaimonic well-being through participating in occupational therapy intervention. It is also suggested that more

research be conducted on this topic and that more occupational therapy practice models are created with eudaimonic well-being as a central guide for treatment.

Northcott, S., Simpson, A., Moss, B., Ahmed, N., & Hilari, K. (2017). How do speech-and-language therapists address the psychosocial well-being of people with aphasia? Results of a UK online survey. ***International Journal of Language & Communication Disorders, 52*****(3), 356-373. https://doi.org/10.1111/1460-6984.12278**

The aim of this article was to explore speech language therapists (SLTs) clinical practice and experiences of addressing the psychological and psychosocial needs of individuals following stroke via a 22-item online survey within the United Kingdom. While referring to some background literature, the authors discuss the high prevalence of decreased mental health in individuals who have sustained a stroke and discuss what health care guidelines in the UK suggest to address this need. In order to better understand how SLTs address physiological well-being within their practice, the authors sent out an anonymous survey to SLT's in the UK through the British Aphasiology Society and the Clinical Excellence Network. Items within this survey were related to SLT demographics, amount of training in delivering psychological support, the percentage of individuals within their caseload who were experiencing psychological distress, psychosocial approaches that they use and how they view this as a part of their role, barriers/enablers to delivering psychosocial therapy and support, and their experiences of working with mental health professionals. Authors received ethical approval and collaboratively reviewed this survey to make it as appropriate, comprehendible, relevant and clear as possible. A snowballing methodology was also used to gain as many participants as possible.

124 SLTs responded to this survey. Overall, responses indicated that though SLTs collectively feel like addressing and attending to their patients psychological well-being is a part of their role, there are many barriers that prevent them from treating this aspect of recovery as effectively as they would like to. Some of these barriers included a lack of confidence due to a lack of mental health training, time/caseload pressures and restraints, lack of on-going support, and lack of accessibility to mental health care workers and resources. On the other hand, some things that the

SLT's did that they felt worked well when addressing psychosocial needs of their patients included supportive/active listening, working collaboratively with their patient, their patient's family, and the rest of the health care team, incorporating social goals into their treatment plan, and having a designated mental health professional who also had knowledge of the clinical specialty.

Overall, this article demonstrates what works well, what does not work well, and what is needed when it comes to addressing mental health related concerns with patients within a neurological rehabilitation setting. A valuable perspective is shared from SLT's that can also be transferable to other health care professionals who reside within a similar setting, working with individuals experiencing similar challenges. The authors conclude the article by reiterating that mental health services need to be easily accessible to other health care sectors, that individuals who have experienced a stroke are at risk for decreased mental health, and that neuron-rehabilitation therapists need to be better prepared for addressing both mental and physical health concerns while walking their client through recovery.

Pizzi, M. A., & Richards, L. G. (2017). Promoting health, well-being, and quality of life in occupational therapy: A commitment to a paradigm shift for the next 100 years. ***American Journal of Occupational Therapy, 71*****(4), 7104170010p1. https://doi.org/10.5014/ajot.2017.028456**

This discussion piece addresses the need for an increased presence of occupational therapy in the role of health and wellness promotion. The authors, Michael Pizzi and Lorie Richards, both board certified occupational therapists, make a point to emphasize the importance of participation over performance to more intentionally support the holistic health, well-being and quality of life of the individuals, communities and population of our world. In order to do this, they discuss the use of a specific occupational therapy practice model, assessment tool, and additional strategies to aid in this transition.

First, the authors discuss the links between occupation, environment, and health while reflecting on occupational therapy philosophy, origin and literature. A lot of this discussion is centered

around establishing an appropriate balance. When relating to humans, balance is discussed in terms of productivity, leisure and self care occupations, as well as a "healthy" mental, physical, social and spiritual self. They also discuss a need for balance between the medical perspectives and overall health promotion perspectives of occupational therapy and health care in general. This point is linked to the original creation of the occupational therapy role, and the different opinions around what this role should be in health care. The visionaries for occupational therapy argued that the role should be centered around health and wellness promotion, viewing humans as their own agents of change and supporting them in engaging in meaningful activities that engage their mind, body and spirit to positively influence their own health. However, the health care systems shifted the focus of their role to serve medical purposes.

The authors argue that in order to restore the balance of the occupational therapy role to reach all of humanity, occupational therapists can and should shift their focus from relying on performance outcome measures to determine progression to prioritizing more subjective outcome measures which reflect how participation and engagement in occupations which are intrinsically meaningful positively impact their health. It is suggested that occupational therapists explore the use of the Environment-Health-Occupation-Well-being (E-HOW) Model and the Pizzi Health and Wellness Assessment (PHWA) within their practice, as described within this article.

The article concludes by providing some implications for occupational therapy practice. Authors describe the promotion of health, quality of life and well-being as a key part of an occupational therapist's role and suggest that therapists should include this as a focus for each client's intervention plan. Additionally, a shift is needed to maintain a focus on health and performance, while prioritizing participation. This shift will enable the progression of the occupational therapy profession, and enhance occupational therapist's skills in addressing physical, mental, social, emotional and cultural aspects of doing, being, becoming and belonging for each client. In order to do this, there is a need to expand occupational therapy academics and education to carry the vision of promoting health, well-being and quality of life, complete more research to inform the forward progression of this profession and better meet societal needs, and to utilize practice models and assessments which provide effective solutions that facilitate participation in everyday living, in turn maximizing the health, well-being and quality of life for all people.

Plastow, N. A., Joubert, L., Chotoo, Y., Nowers, A., Greeff, M., Strydom, T., Theron, M., & van Niekerk, E. (2018). The immediate effect of African drumming on the mental well-being of adults with mood disorders: An uncontrolled pretest-posttest pilot study. ***American Journal of Occupational Therapy, 72*****(5).** **https://doi.org/10.5014/ajot.2018.021055**

This article describes the first ever uncontrolled pre-test, post-test pilot study to be conducted to explore the effects of an occupational therapist-led African drumming group on the mental well-being of individuals with mood disorders within a private adult psychiatric inpatient clinic in the Western Cape of South Africa. The authors utilized a quasi-experimental, uncontrolled, single group, pre-test, post-test design to complete this research and provide sound justification through a discussion of literature. The authors discuss that although internal validity may be decreased due to having no control group, it was deemed an appropriate design for this pilot study due to it's exploratory nature and to prepare for future research. In order to reliably measure well-being, data was collected through the Stellenbosch Mood Scale, the Primary Health Questionairre-9, the Generalized Anxiety Disorder-7 scale, and the Enjoyment of Interaction Scale. Participants were selected from the clinic's occupational therapy programme and were recruited by their occupational therapist to participate. All fourteen participants provided informed consent to be included within this research.

These participants had the option of attending six different drumming sessions twice a week, over a three week period. These sessions were 45 minutes long and were facilitated by the two occupational therapists who work within the clinic. These groups were facilitated according to Cole's (2012) seven-step format and the drumming intervention followed the 360 Drum/Rhythm Circle Facilitation Method. Additionally, the occupational therapists adapted the rhythm, instruments, and expressive techniques to best meet the therapeutic needs of the members of the group. Participants were asked to complete self-report questionnaire immediately before the intervention, as well as immediately after, along with other valid assessment tools.

Data was analyzed using IBM SPSS Statistics without input from the occupational therapists, and within a different location to mitigate bias and increase reliability of the results. Results demonstrated that the African drumming groups dramatically improved mood and feelings of enjoyment, and evoked creativity, as reported by participants. Due to the range of mental health diagnoses belonging to each participant and their different stages of recovery, it was also proven that this was an intervention that had a positive impact on a wide range of affective states and is an effective therapeutic activity that can be used throughout the entire recovery pathway. Some factors that contributed to the success of this intervention included the group session structure, frequent sessions, active participation, verbal discussion of the experience, consistent maintenance of personal boundaries and group ground-rules, and the building and strengthening of therapeutic relationships. It was also mentioned that the physical and sensory-motor approach of drumming especially contributed to the therapeutic attributes of this intervention and is backed by evidence-based research to have an especially significant impact on improving depression. Conclusions from this study indicate that this is an effective intervention to improve the mental well-being of individuals, pairs well with occupational therapy, and that additional research is recommended to further explore the therapeutic effects of music, culturally-relevant interventions, and a sensory-motor approach.

Vujcic, M., Tomicevic-Dubljevic, J., Grbic, M., Lecic-Tosevski, D., Vukovic, O., & Toskovic, O. (2017). Nature based solution for improving mental health and well-being in urban areas. *Environmental Research*, *158*, 385–392. https://doi.org/10.1016/j.envres.2017.06.030

This article explores a nature based solution for improving the mental health and well-being of individuals within urban areas in Serbia. The authors of this study collaborated with the Faculty of Forestry, the Botanical Garden, and the Institute of Mental Health to facilitate a horticulture therapy programme for individuals with depression, anxiety and stress disorders. Thirty participants were randomly selected from the day hospital of the Institute for Mental Health in Belgrade, and were randomly assigned to the control group and the study group. In order to avoid a placebo effect or special treatment, the control group engaged in a occupational art therapy group alongside conventional therapy; whereas, the study group participated in the

horticulture therapy programme alongside conventional therapy. The authors justified the use of the Depression Anxiety Stress Scale (DASS21) as a before and after intervention, and post-evaluation measure for this empirical research study due to its psychometric properties, simplicity and accessibility.

Participants completed three, one hour horticulture therapy intervention sessions each week for four consecutive weeks. A team of psychiatrists, doctors and therapists facilitated these sessions according to the patient's treatment goals. These interventions were also backed by the Stress Recovery Theory, Attention Restoration Theory, and a sensory integrated approach. Results from the DASS21 after the intervention and evaluation period revealed that nature based therapy had a positive impact on the mental-emotional health and well-being of the participants. Participants reported that being in a green environment had a recuperative effect on them, that the botanical garden programme provided them with a positive coping strategy, and that the interactive aspects of the activity enabled them to find their creative selves.

The article concludes by stating that horticultural therapy and nature-based therapies pair well with occupational therapy and/or supportive therapies, and is an effective solution for individuals with depression, anxiety and stress-disorders to improve their mental well-being and implement sustainable coping strategies. It has also been concluded that engaging in therapy within a natural, green environment can not only have a restorative and recuperative effect on individuals, but can also be mutually beneficial for the green space itself, therefore; creating a mutually beneficial relationship between the environment, person, and the occupations performed. The authors use data from this research to promote the use of nature-based interventions for restorative mental health and preventative health due to proven positive outcomes, cost-effectiveness and sustainability aspects.

Themes

During analysis clear themes began to emerge. Although all of the articles had differing characteristics, publication dates, authors, and topics, it was interesting to observe similar points and recommendations being made by each author. Information that stood out within each article

was noted and compared among all nine articles. These notes were then coded and collapsed into themes and sub themes present in Table 5 below.

Table 5: Themes and Sub-theme/s

Theme	Sub-theme/s
1. Facilitators and barriers to addressing psychological well-being within a clinical setting	
2. The relationship between occupation and well-being	• The construct of well-being • Occupational factors that influence well-being
3. A call to action – positive changes recommended for occupational therapy service delivery	
4. Effective approaches for enhancing psychological and holistic well-being	
5. Interventions with therapeutic attributes	• Strategies to enhance well-being
6. Assessments to add to the occupational therapist's toolkit	

This process can be seen in Appendix D. Knowledge and information taken from these articles has collectively answered the research question, "What is known about the skills, strategies and techniques used in occupational therapy to promote positive mental well-being within physical health settings?" Themes one and two discuss knowledge gathered from the articles that refers to what is known about well-being and occupation, as well as some of the impacting factors of addressing psychological well-being within a clinical setting. Themes three and four discuss the unique skill-set that occupational therapists have to create necessary positive change within health provision to better address mental well-being, as well as skills used within practice to support client's needs in a holistic manner. Themes five and six discuss types of interventions and assessments that can be added to a therapist's toolkit to implement additional techniques for mental health promotion.

Theme 1) Facilitators and barriers to addressing psychological well-being within a clinical setting

When referring to the research question presented within this scoping review, multiple authors of the final nine articles offered insight into the "what is known" about how to bridge the gap between physical health and mental health and in turn support client well-being. Identification of this need to bridge the gap was then grouped into facilitators and barriers. Facilitators or solutions included collaborative work and consistency between MDT/IDT approaches, widening MDT teams, mental health training opportunities, ongoing support by the voluntary sector, and adequate evidence-based research pertaining to mental health and neurological rehabilitation.

Barriers to addressing psychological-related issues, such as time/caseload pressures, feelings of being under-skilled in mental health knowledge or "feeling out of their depth" when attempting to acknowledge these challenges, a lack of training and on-going support, difficultly accessing resources, limited mental health service provision, and a lack of confidence with mental health referrals due to negative experiences (Northcott, et al., 2017; Ellis-Hill et al., 2019; Ander et al., 2019).

Theme 2) The relationship between occupation and well-being.

A) The construct of well-being:

All of the final articles included within this scoping review have a strong focus on well-being. Out of the nine articles, five provided definitions of well-being from varying perspectives. Among three articles, well-being was believed to be achieved when there is a healthy connection between the body and the mind, and when this strong connection enables satisfactory levels of productivity and engagement with the world in ways that are beneficial to mental, physical, social and spiritual health (Northcott, et al., 2017; Pizzi & Richards, 2017; Vujcic, et al., 2017).

Although there were slight differences within the discussions of well-being within each article, the most significant commonality was that well-being is incredibly subjective and can only be evaluated according to the perception of the individual, themselves. Articles with an occupational therapy perspective also discussed well-being in relation to an individuals subjective experience of occupation and the impact occupational roles and participation in

meaningful activities has on the construction of their self identity (Ander, et al., 2013; Hayward & Taylor, 2011; Eklund & Leufstadius, 2007; Pizzi & Richards, 2017).

B) Occupational factors that influence well-being:

The interactive relationship between occupation and well-being was a common discussion among the final articles. All articles agreed that the occupations that people engage in can have health-promoting or health-prohibiting ingredients that effect their well-being either positively or negatively. One main point made by several of the authors was that feelings of well-being and positive health are actually more related to how occupations are perceived, rather than how they are completed and performed. This is determined by the level of meaning the occupation holds to the individual and their core values, linking strongly to the concept of occupational identity. Within an occupational therapy context, the authors use this explanation to justify the facilitation of a practice that enables the clients to be their own agents of behavioral change and to have autonomy when making choices related to occupational goals and interventions throughout the problem solving process (Eklund & Leufstadius, 2007; Pizzi & Richards, 2017; Plastow, et al., 2018; Hayward & Taylor, 2011).

Theme 3) A call to action – positive changes recommended for occupational therapy service delivery

A common theme across the articles was that there are several opportunities for positive change within the occupational therapy profession, and health care delivery in general, as well as the literature that informs these practices to better address well-being. As mentioned in theme two, it is argued that a client's subjective experience is integral to therapy evaluation and that well-being should be routinely assessed through subjective measures in order to be client-centered and to ensure client satisfaction. In regards to occupational therapy evaluation and outcome measures, there is also a recommended shift in focus to hold participation in meaningful activities at a higher value than performance, and for occupational therapy models and assessments to directly link health and occupational participation (Eklund & Leufstadius, 2007; Pizzi & Richards, 2017; Hayward & Taylor, 2011).

There is also an identified need for an increased use of a social identity approach to improve holistic well-being. A social identity approach links a person's sense of self with the groups that they belong to. Utilizing this approach provides a role for occupational therapists to engage their clients in social activities that not only build or maintain their support systems, but also enhances their self-identity, self-confidence, self-esteem, and sense of belonging. Engagement in social activities are usually organized around "doing" occupational based tasks or interests, therefore a link between social identity and occupational identity can be drawn. A more comprehensive long-term support pathway is also needed to increase the sustainability of positive therapy outcomes with cost-effective interventions that clients can access independently at any stage of their recovery (Haslam, et al., 2008; Ellis-Hill, et al., 2019).

Theme 4) Effective approaches for enhancing psychological and holistic well-being

Although many of the articles provided some constructive feedback in regards to the various areas in need of improvement within occupational therapy and health care services, the studies also provided examples of several approaches that were very effective in the promotion of positive well-being. Four of the articles discussed success with a sensory or sensory-motor approach. This type of approach allowed individuals to interact with their environment through the sensory dimensions of sight, smell, taste, sound and touch. The product of this was a more immersive experience for the participants, which naturally increased engagement and participation, as well as perceived levels of enjoyment and health-related benefits absorbed through the intervention process (Ander, et al., 2013; Ellis-Hill, et al., 2019; Plastow, et al., 2018; Vujcic, et al., 2017).

A client-centered approach was also highlighted as an important consideration for occupational therapy service delivery. Many of the articles discussed how client-centeredness can be facilitated by providing clients with opportunities for spiritual expression and connection through occupational engagement. This had the most success when therapists utilized models that incorporated aspects of spirituality, culture and personal values and beliefs to guide therapy (Ellis-Hill, et al., 2019; Haslam, et al., 2008; Hayward & Taylor, 2007; Plastow, et al., 2018; Pizzi & Richards, 2017).

Theme 5) Interventions with therapeutic attributes

There were four articles that described specific occupation-based interventions that can be used to promote positive mental well-being. Some of the commonalities between the interventions discussed within these articles were that they pair well with and can be used alongside "usual" rehabilitation therapies. They also fall under the category of "creative" and/or "cultural" interventions. Through participation in these interventions, individuals can experience residual positive effects such as improvements in mood, self-esteem, confidence, resilience, vitality and a sense of identity. Each of these interventions are evidence-based and proven to enhance well-being. Nature-based, arts-based and musical interventions were also described to have many psychologically beneficial attributes (Ander, et al., 2013; Ellis-Hill, et al., 2019; Vujcic, et al., 2017; Plastow, et al., 2018).

Strategies to enhance well-being

Additional strategies that were discussed in relation to positive mental well-being promotion included active and supportive listening; providing advice, information and education regarding mental health; collaborating with the client, the inter-disciplinary team and the client's family for an integrated approach; facilitating peer-support groups; and seeking support and oversight from mental health professionals. Specific psychotherapeutic approaches such as cognitive behavioral therapy (CBT) and solution focused brief therapy were also encouraged, if the necessary training is permitted by the practice setting. Additionally, the implementation of interventions that aim to maintain and facilitate social identification and therefore occupational identity through meaningful group memberships was proven to aid in community re-integration and improve health and mental well-being through the strengthening of social identities (Northcott, et al., 2017; Haslam, et al., 2008).

Theme 6) Assessments to add to the occupational therapist's toolkit

Six out of the nine articles mentioned assessments that were used throughout their studies to measure well-being and other relevant data. These assessments can be grouped into measures for

mental health symptom severity and psychological/psychosocial functioning, well-being and quality of life, and occupational value and satisfaction.

Assessments that were used to measure mental health symptom severity, psychological functioning and psychosocial functioning included the Depression Anxiety Stress Scale (DASS21), the Stellenbosch Mood Scale (STEMS), the Generalized Anxiety Disorder-7 Scale (GAD-7), Primary Health Questionnaire-9 (PHQ-9), the Hospital Anxiety and Depression Scale (HADS), Rosenberg Self-Esteem Scale (RSES), the Social ED Self-Report Scale, the positive and Negative Affect Scale, the Brief Psychiatric Rating Scale (BPRS), the Global Assessment of Functioning (GAF), the Head Injury Semantic Differential Scale (HISDS-III), and the Health of the Nation Outcomes Scale (HoNOS) (Vujcic, et al., 2017; Plastow, et al., 2018; Ellis-Hill, et al., 2019; Eklund & Leufstadius, 2007).

Assessments that were used to measure well-being and quality of life included the Exeter Identity Transition Scale (EXITS), the Warwick-Edinburgh Mental Well-being Scale (WEMWBS), the ICEpop CAPability measure for adults (ICECAP-A), the Medical Outcomes Short Form Health Survey (SF-36 V.1), the Sense of Coherence Scale (SCO), and the Manchester Short Assessment of Quality of Life (Haslam, et al., 2008; Ellis-Hill, et al., 2019; Eklund & Leufstadius, 2007).

Assessments that were used to measure occupational value and satisfaction included the Satisfaction with Daily Occupations Assessment (SDO), the Occupational Value with pre-defined items (OVAL-pd), the Pizzi Health and Wellness Assessment (PHWA), the Mastery Instrument, and a “yesterday” diary (Eklund & Leufstadius, 2007; Pizzi & Richards, 2017).

Summary

As evidenced throughout this chapter, the search strategy used for this scoping review produced nine articles that provide value for the given research question. Findings from these articles indicated that not only is the research question presented within this scoping review relevant to the current discussions happening within the occupational therapy community, but that there are

several solutions available to better acknowledge and prioritize the mental well-being of individuals engaging in occupational therapy throughout all scopes of practice.

Chapter Five: Discussion

Overview of findings and summary of evidence

The research question, "what is known about the skills, strategies and techniques used in occupational therapy to promote positive mental well-being within physical health settings?" brought to light an important discussion for occupational therapy. Derived from the themes outlined in the previous chapter, several points with relevance to today's occupational therapy practices arise, as well as future actions to enable the positive progression of the occupational therapy role in all scopes of practice, specifically in the realm of the promotion of mental well-being. Some of these solutions included cohesive collaboration amongst therapy teams, clients, whanau, and mental health workers; specific psychotherapeutic strategies and techniques; group work, social integration and identity formation or reformation; client-centered practice and the prioritization of subjective experiences and outcome measures; nature-based therapy opportunities; a sensory-motor approach; cultural responsiveness and spiritual expression; and occupational therapy models and assessments that guide a practice with well-being as a primary focus.

Some of the main findings from this research indicate that there is a clear need for a shift in occupational therapy practice to pull from the health and wellness identity of the occupational therapy role to bridge the gap between mental and physical health service delivery and increase client-centeredness with a more holistic approach. This chapter will discuss three of the most prominent topics discovered through this review, with links to current literature, legislature, policies, procedures, and occupational therapy practice.

Table 6: linking discussion topics to themes and scoping review articles

Topics	Themes	Articles
1. Definitions and perspectives of well-being in healthcare	Theme 2 – the relationship between occupation and well-being; the construct of well-being; occupational factors that influence well-being	• (Northcott, 2017) • (Pizzi, 2017) • (Vujcic, 2017) • (Ander, 2013) • (Hayward, 2011)

		• (Eklund, 2007)
2. Bridging the gap between mental health and physical health care service delivery and leading the path to integrated care – barriers and solutions.	Theme 1 – Facilitators and barriers to addressing psychological well-being within a clinical setting Theme 3 – A call to action – positive changes recommended for occupational therapy service delivery	Theme 1 – • (Northcott, 2017) • (Ellis-Hill, 2019) • (Ander, 2013) Theme 3 – • (Eklund, 2007) • (Pizzi, 2017) • (Hayward, 2011) • (Haslam, 2008) • (Ellis-Hill, 2019)
3. The occupational therapy role in well-being promotion	Theme 4 – Effective approaches for enhancing psychological and holistic well-being	• (Ander, 2013) • (Ellis-Hill, 2019) • (Plastow, 2018) • (Vujcic, 2017) • (Haslam, 2008) • (Hayward, 2007) • (Pizzi, 2017)
Informing occupational therapy practice and future directions	Theme 5 – Interventions with therapeutic attributes; strategies to enhance well-being Theme 6 – Assessments to add to the occupational therapist's toolkit	Theme 5 - • (Ander, 2013) • (Ellis-Hill, 2019) • (Vujcic, 2017) • (Plastow, 2018) • (Northcott, 2017) • (Haslam, 2008) Theme 6 – • (Vujcic, 2017) • (Plastow, 2018) • (Ellis-Hill, 2019) • (Eklund, 2007) • (Haslam, 2008) • (Pizzi, 2017)

The topics forming the discussion portion of this scoping review have been formulated to align with the themes and findings of the scoping articles. The table above describes the themes, articles, and discussion topics that are interconnected.

Definitions and perspectives of well-being in healthcare

As referenced in theme two of this review, the concept of "well-being" was consistently discussed among the nine articles that were studied. While continuing to research well-being in the realm of healthcare, it was discovered that a common goal for many healthcare frameworks is centered around improving the "health," "well-being," and "quality of life" of the population. However, these terms can be defined in various ways and are interpreted differently person to person. It is important to understand what our healthcare systems believe contribute to positive health, well-being, and quality of life, as well as how this is demonstrated. With this knowledge, members can identify and overcome barriers, while finding sustainable solutions that serve all and continue to grow a healthcare system that is beneficial to everyone. Policies, practices, guidelines and goals set by the overarching healthcare leaders sets a standard for healthcare workers, and impacts patient care practices. The goals of the healthcare system also determine competencies for each healthcare profession, and influence models/frameworks followed by each field. This is a valuable topic for occupational therapy literature, in that occupational therapists use meaningful occupation, alongside other therapeutic mechanisms, to promote the positive holistic well-being of their clients, through supporting the maintenance or development of occupational identities. Ensuring that this is congruent with the overall system provides sound justification for, and validates goal setting, treatment planning, outcome evaluation, and other therapy practices).

Healthcare organizations, such as the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC) have a big influence on how the healthcare systems around the world operate, and play a role in feeding the general knowledge of the people. The CDC is especially involved in the protection of the United States health care system and works under the United States Department of Health and Human Services, along with other well-known services such as the Commonwealth Fund and the National Institutes of Health (NIH) to protect

the health and well-being of the people. The CDC describes well-being with a public health perspective, as a term that integrates a person's physical health and mental health. Well-being can be evaluated when analyzing various aspects of ones life, and in areas such as physical, economic, social, development and activity, psychosocial/emotional/psychological, life satisfaction, engaging/meaningful activities, and work. Well-being is also said to be a valid subjective outcome measure, which help policy makers to make decisions for the people and provides an evaluation tool for current practices. Linking well-being and health promotion together provides valuable, more holistic perspectives for healthcare workers to adopt into their practice, optimizing the health outcomes of their clients. The CDC has been especially proactive in well-being promotion. The Health-Related Quality of Life Program was created by the CDC in 2007 to examine how well-being can be effectively integrated into health promotion and measured in public health systems. Studies assessed the feasibility of this program using subjective well-being measures, and has informed the development of the Healthy People 2020 initiative to further achieve goals related to quality of life and well-being (CDC, 2018).

The WHO provides additional resources that can be accessed by the public to improve both physical and mental well-being, while highlighting the importance of caring for holistic needs with equal prioritization. The WHO also provides a section specifically discussing mental well-being, and the action they've taken to improve the mental health of individuals and society as a whole. Some of these actions include the WHO Special Initiative for Mental Health: Universal Health Coverage for Mental Health, launched in 2019, and the Mental Health Gap Action Programme (mhGAP), which aids in the integration of mental heath care into general health care and has helped to extend the mental health care in more than 110 countries (WHO, 2019).

New Zealand healthcare also has big aspirations for the well-being of their people/tangata whenua. The Statement of Strategic Intentions (2017-2021) from the Ministry of Health in New Zealand states that services available to the people of New Zealand are intended to enable New Zealanders, whanau, communities and visitors to "live well, stay well, and get well" (MOH, p. 5, 2017-2021). The New Zealand government views health as an important driver of economic and social prosperity, and links health and happiness to physical, social, psychological and spiritual well-being. This is why New Zealand invests in universal healthcare, with the justification that if

New Zealanders are "healthy," they are able to live more independently, live longer and more productively, and live the lives that they desire, positively impacting the overall prosperity of the country. In order to ensure the people "live well, stay well and get well," the New Zealand Health Strategy aims for services to encompass five aspects: people-powered (Ma te iwi hei kawe), closer to home (Kia aro mai ki te kainga), value and high performance (Te whainga hua me te tika o ngā mahi), one team (Kotahi te tima), and smart system (He atamai te whakaraupapa). This means that the country is taking steps to ensure that their people are informed and involved in their own health; that there is a focus on prevention, early intervention, rehabilitation and well-being for long-term conditions; that funding is prioritized to the areas with the greatest needs; that a more cohesive health care system is created based on a culture of trust, collaboration, and shared goals; and that there is increased efficiency of the health system, making it more reliable and accurate (Ministry of Health, 2017).

Clearly, well-being is becoming a better understood concept, and is a value being adopted in hospitals and healthcare systems around the world. This is demonstrated within New Zealand legislature, American legislature, and specifically in the directions for occupational therapy. With an occupational lens, occupational therapists link an individual's well-being, health and quality of life with the meaningful occupations in which they participate, slightly differing from the global definitions provided above. For example, an article from the American Occupational Therapy Association (AOTA) defines well-being as a concept with eight dimensions; emotional, environmental, financial, intellectual, occupational, physical, social and spiritual. According to this definition, a person might feel a sense of well-being if they are experiencing positive emotions, and if they are satisfied with their participation in occupational and activities which are meaningful to their quality of life (Reitz, et al., 2020).

Five of the scoping review articles provided definitions for well-being very similar to those detailed above; however, another article provided a very interesting and unique definition of *eudaimonic well-being* intended specifically for an occupational therapy context. Eudaimonic well-being is a term used in positive psychology to describe subjective experiences related to one's life which encompasses a person's strengths, outlook on life, sense of purpose, and a sense of authentic existence. Eudaimonic well-being can be achieved when an individual's life

activities align with their deeply held values and requires holistic engagement. This definition aligns well with occupational therapy in that similar language is used, subjectivity is valued, and well-being is directly linked to spirituality, culture, and meaningful activities (Hayward, 2011; Di Fabio, 2015).

A common theme among the perspectives of well-being discussed above, is that well-being is comprised of both physical, and mental/emotional/psychosocial components, and that well-being promotion is a goal for healthcare systems around the world, as well as for the multidisciplinary teams practicing within these systems. Therefore, linking back to the research question, one technique used by occupational therapists is to mirror the language used by organizations like WHO and CDC as well as core ideas from positive psychology to give credibility to the shift in their intervention focus. However being able to link it back to a specific occupational perspective is also important, all the articles were occupationally based due to the inclusion criteria, the interventions supported wellbeing through occupation, therefore while mirroring shared well being language we can still highlight the aspects which reflect occupational therapies specific focus. The next topic addresses the identified gap in healthcare delivery, which is preventing this goal from being fully achieved.

Bridging the gap between mental and physical health care service delivery and leading the path to integrated care – barriers and solutions

As stated in theme three, many articles included within this review mention a call to action for occupational therapists to help bridge the gap between mental and physical healthcare to provide a greater over-reaching service for all. This seems to be a trend brewing in today's healthcare system and a goal for many service providers around the world. This topic will discuss literature describing the benefits of closing this gap and examples of how to effectively and ethically do so, given the barriers and issues faced while creating this positive change.

A report from the World Health Organization (WHO) discusses the integration of mental health services into primary care settings from a global perspective. Within their report, they aim to

help develop a broader understanding of why it is necessary to integrate mental health within the general health care system, and that it is most effective when properly supported by other levels of care, such as community-based services and hospital services. In the eyes of the WHO, mental health care and general primary care are inherently connected and when treated as such, could make a hugely positive impact on the world, generating better health outcomes for all of humanity. This idea is justified by seven observations: the burden of mental disorders is significant, mental and physical health problems are interwoven, the treatment gap for mental disorders is huge, primary care for mental health enhances access, primary care for mental health promotes respect for human rights, primary care for mental health is affordable and cost effective, and primary care for mental health generates good health outcomes. They also provide ten principles for integrating mental health into the primary care system: policy and plans need to incorporate primary care for mental health, advocacy is required to shift attitudes and behaviour, adequate training or primary care workers is required, primary care tasks must be limited and doable, specialist mental health professionals and facilities must be available to support primary care, patients must have access to essential psychotropic medications in primary care, integration is a process, not an event, a mental health service coordinator is crucial, collaboration with other government non-health sectors, nongovernmental organizations, village and community health workers, and volunteers is required, and financial and human resources are needed. This piece of literature provides a clear outline of how to effectively integrate mental health care into general care, with detailed examples and in-depth justifications, as well as predicted consequences if this action is not taken (WHO, 2008). Therefore, the barriers and solutions found within the scoping review articles reflect the discourses and initiatives being communicated and lead from the WHO.

Several of the scoping review articles discuss the need for overlapping mental/physical health care due to clinicians having low self-efficacy addressing mental health related concerns while fulfilling a role within a physical health setting, visa versa. One article specifically addresses this issue while exploring the experiences of speech language pathologists addressing the psychological needs of their clients who were in the process of recovering from a stroke. Similarly to the report form the WHO above, SLP's who participated in this study reported a

need for additional and continuing mental health training, easier access to a mental health liaison, and additional available mental health resources (Northcott, 2017)

A study conducted by the National Confidential Enquiry into Patient Outcome and Death (2017) (NCEPOD) discusses this topic amongst a multi-disciplinary team of patient and clinical representatives in the areas of acute medicine, anesthesia and acute pain, clinical psychology, critical care nursing, emergency medicine, general liaison psychiatry, geriatrics, mental health nursing, pharmacology, plastic surgery, and occupational therapy, as well as additional multi-disciplinary members recruited for the peer-review process. These health professionals collectively explore the care-pathway of 552 individuals within general hospital settings who presented with varying physical health issues and a mental health co-morbidity to explore remedial factors in the quality of physical and mental health care, in order to create a clear plan of action for integrated care at both an organizational and individual case level. They highlight the disconnect between physical healthcare and mental healthcare, while identifying issues which decrease the quality of care received. Overall, some of the main issues were a lack of referrals to the liaison psychiatry team, poor documentation and acknowledgment of mental health concerns, a delayed response from the liaison psychiatry team, inadequate mental health assessment administration and inappropriate discharge planning due to a lack of acknowledgment of mental health risks. As a result, the quality of care was not up to standard, and examples of "good" clinical practice were noted in only 17.9% of patients included in this study (93/521). These findings mirror some of the barriers located from the scoping review articles, particularly within articles by Northcott et al. (2017), Ellis-Hill et al. (2019), and Ander et al. (2019). Within these articles, some of the outline barriers included time and caseload pressures, low self-efficacy working with issues outside of their scope of practice, a lack of training and on-going learning opportunities, difficulty accessing resources, and limited mental health service provision. In the same regards, some common solutions are located between the scoping review articles and NCEPOD, such as increased mental health training and education, collaborative work between the MDT/IDT, and allocation of a mental health liaison within settings (Northcott et al., 2017; Ellis-Hill et al., 2019; Ander et al., 2019).

The NCEPOD team also provides detailed recommendations to improve this statistic, and allocate solution-focused actions for all healthcare workers. For example, it is recommended that occupational therapy and other allied health professionals play a role in ensuring consistent mental health assessment and documentation of patient presentation as well as any relevant history, which is then shared with every member involved with the patient's care. Other solutions include:

- routine mental health screening in each care setting
- a review of national guidelines and expectations so that all staff are informed about when a psychiatric referral should be made and what kind of information needs to be included within this referral
- mental health liaison assessments be made in an appropriate timeframe and that the liaison psychiatry review include clear and concise documented plans and instructions for other general hospital staff, including a risk assessment, management plan and discharge plan with mental health follow up
- all practitioners offer patients support with overcoming/managing substance abuse, and that any identified substance abuse history be communicated to pharmacology staff
- one-to-one mental health observation support be available for patients within a general hospital setting with either trained staff, or by a local mental health service
- mental capacity assessments be documented in case notes using the language of the relevant Act for universal understanding, and that if concerns arise, a mental health liaison is brought into the client's care team to assist in decision making
- each hospital or care setting must have a robust system for the management of mental health legislation processes
- discharge plans be shared with and approved by all members of the patient's care team
- all staff who interact with patients receive mental health training, which is regularly updated; and that liaison psychiatry services be fully integrated into general hospitals and care settings, and be an active part of the multi-disciplinary team

The purpose of these directives is to encourage all healthcare workers to actively acknowledge an individual's mental well-being throughout all stages of care. If done routinely, this could

prevent individuals with decreasing mental health from slipping through the cracks and provide opportunities for all individuals to speak up about any mental health concerns. This type of holistic care could also help to spread mental health awareness, educate people about the link between physical health and mental health on overall well-being and health, and enable more positive healthcare experiences (Alleway; et al., 2017).

Dahl-Popolizio, et al. (2016) provide an in-depth discussion about the occupational therapy role within integrated health care and the value that occupational therapists can bring into a primary care team. The authors of this article discuss the ever-changing definition of primary care, and how in more recent years, healthcare providers are expected to focus on meeting the holistic needs of their client by focusing on prevention, systemic wellness, and empowerment. This is an identified gap in services that occupational therapists are able to assist in closing due to the unique, dynamic skill-set and perspective instilled within the profession. Occupational therapists are educated and trained to address the whole person, and are equipped in both mental and physical health interventions, rehabilitations, and habilitation, making them an ideal addition to any primary care team. Despite the obvious contributions an occupational therapist can make within an inter-professional primary health team, the role is not well-defined and requires additional distinction. It is believed that with adequate representation, occupational therapists can make a significant impact on systemic primary health care practices, and can help healthcare systems reach their goals in prevention of re-admission, accessibility of care, and sustainability of patient outcomes (Dahl-Poplizio, et al., 2016). This scoping review is one step toward defining what well-being is to allied health, and particularly what it means to occupational therapy. This scoping review supports Dahl-Popolizio et al., perspective and provides examples of occupational therapists working in the positive well being primary health care space; therefore, adding to the conversation and supporting clarity around the potential and specific role of occupational therapy.

As occupational therapists and active members of the healthcare system, it is our duty to advocate for and participate in positive change. There are a multitude of resources to enable success in eliminating the gap between mental and physical healthcare. The occupational therapy role is especially fit to support the transition into integrated primary care to achieve goals in

physical and mental well-being promotion, while also having the skills and processed developed to refer to specialist mental health services when required.

The occupational therapy role in well-being promotion

The concept of holistic wellness promotion has been a staple of the occupational therapy identity since the original development of the profession (Matuska, 2010). During the progressive era, optimism and humanitarianism perspectives drove the creation of the occupational therapy role. It was founded on a humanistic ideal of promoting well-being through engagement in meaningful occupations. Over time, occupational therapy philosophy, role definition and practices have steadily continued to progress to fit the needs of today's population (Reitz, 1992; Matuska, 2010). More recently, there is a focus to prepare occupational therapists and other health professionals to put on a health promotion practitioner "hat" alongside their original professional identity. Today's health care costs are rising globally and demographics are ever-changing, causing the need for an integrated approach across health care delivery/providers to implement actions that add to the quality of life of health care users. Adding health promotion and wellness goals to occupational therapy and other health care practices can help to decrease the impact of disease and disability in individuals lives. This is an appropriate action for therapists in that the idea of supporting clients to optimize functional capacities to lead a productive and satisfying life is already an important objective of the profession (Morris & Jenkins, 2018). The issue is; however, that many occupational therapists and other health professionals often fall short in this aspect of their role due to certain institutional barriers, as mentioned in theme one of this review.

A unique aspect of an occupational therapy is the professions understanding of occupational identity. Occupational identity is the understanding of how a person's spirituality, culture and sense of self interacts with the environment that they hold roles within and the occupations in which they participate, as well as the impact this connection, or lack-of has on their health and well-being. A link between maintaining a valued occupational identity and well-being is drawn. Therefore, occupational therapy education coaches occupational therapists to incorporate personal and meaningful occupations into their client's therapy which encompass spiritual and

cultural relativism as a way of maintaining a client-centered practice and supporting a person preferred occupational identity. One way that occupational therapists portray the value of these components is through the use of practice and conceptual models to guide their interactions (Duncan, 2011). The use of practice and/or conceptual models also enable occupational therapists to use themselves as a therapeutic tool within practice. Practice and conceptual models provide therapists with a holistic view of the person in front of them, often highlighting the unique aspects of the person, their valued occupations and roles, support systems, and other personal strengths. With this knowledge and deeper understanding, therapists can adapt the way that they interact with their client to form a professional relationship which optimizes the client's experience (Solman & Clouston, 2016). Although the term *therapeutic use of self*, was not explicitly defined within the scoping articles, many of the articles discussed the skills, strategies and techniques which fall under this term and are used by occupational therapists and other healthcare professionals to build and enhance their professional relationships with the individuals that they support. This was highlighted in theme four of the scoping review findings, where five articles discussed person-centered practices, with spirituality, culture, and personal values and beliefs viewed as the most important considerations, along side the primary occupational focus for therapy (Ellis-Hill, 2019; Haslam, 2008; Hayward, 2007; Plastow, 2018; Pizzi, 2017).

Conceptual, occupation-centered models such as the Model of Human Occupation (MOHO), developed by Kielhofner in 2008, and the Canadian model of Occupational Performance and Engagement (CMOP-E), developed by Townsend and Polatajko in 2007, incorporate concepts of spirituality and cultural identities within the occupations people engage in, and are described to be person-centered. CMOP-E places spirituality at the core of the person, describing spirituality as "a pervasive life force, source of will and self-determination, and a sense of meaning, purpose, and connectedness that people experience in the context of their environment" (CAOT, 1997, p. 183; Fisher & Wong, 2015, p. 301). It has been identified that cultural relativism, spirituality, person-centeredness, and well-being have an interconnected relationship, so utilizing models which embody these concepts is integral to facilitating a therapeutic practice. Both models also consider culture as an important aspect of a person's environment, and consider this to be a critical detail of the model (Fisher & Wong, 2015). Culture is observed through the things people do within their day. These models can both be effectively used to guide a client-centered and

culturally-responsive occupational therapy practice; however, adopt more of a westernized approach, so therapists may require additional coaching for specific cultural acknowledgement respectful to their client's geographical origins and cultural identity Cultural identity and occupational identity being interwoven (Iwama, et al., 2009). However, specific links to these models were not explicitly demonstrated within the scoping review articles

New Zealand practices biculturalism in order to preserve the cultural well-being of the Māori people. There are a range of models of health available to occupational therapists to lead a culturally responsive practice for their Māori clients, such as Te Whare Tapa Wha (developed by Durie in 1982), Te Wheke (developed by Pere in 1984), Ngā Pou Mana (developed by Henare in 1998), Whanaungatanga (developed by Milne in 2001), Te Pae Mahutonga (developed by Durie in 2003), and The Meihana Model (developed by Pitama and colleagues in 2007). These models not only educate occupational therapists about Māori values, practices, and views of health and well-being, they also coach occupational therapists on how to facilitate interactions with their clients in a client-centered, respectful and culturally responsive manner. Occupational therapists can also lead a consistently culturally-respectful practice by acknowledging the spirituality of their client, placing the client in the center of their own care, involving extended family in the client's care, ensuring that the client and their family are informed throughout the occupational therapy problem solving process, creating a therapeutic environment for healing, and providing opportunities to participate in occupations which fulfill cultural needs (O'Hagen, et al., 2012; Hopkirk & Wilson, 2014). It has also been proven that culturally congruent interventions can enhance client engagement and decrease psychological distress of Māori people undergoing health-related treatment. A culturally congruent intervention is one with culturally efficacy which connects to Māori values and practices (McLauchlan, et al., 2017).

The Kawa Model is another occupational therapy model, designed to support therapists to practice in a culturally relevant and competent, holistic, and person-centered way. This model stands out amongst other models in that it encompasses a broader understanding of 'culture' and holds this understanding as the primary focus. Culture within this model is defined as, "shared experiences and common spheres of meaning, and the (collective) social processes by which distinctions, meanings, categorizations of objects and phenomena are created and maintained"

(Iwama, 2005, p. 1126). The kawa model conceptualizes the client's life and story as a metaphoric river. There are additional concepts to describe aspects of the person, their environment, and occupations. For example, rocks or *iwa* reflect life challenges and driftwood or *ryuboku* relates to a person's supports, resources, personal characteristics, strengths, weaknesses, and material assets. The river walls and bottom or *kawa no soku-heki and kawa no zoko,* represent a person's environment, and the movement of the water represents life flow or *mizu.* It is then up to the client to freely interpret their own "river" according to their own life, self, environment and occupations. From here, the client and the occupational therapist work collaboratively to implement interventions to overcome challenges and create a life flow which is balanced, steady and satisfying (Leadly, 2015). The use of this model allows individuals to establish a deeper connection with themselves, as well as develop a therapeutic relationship with their therapist. For many individuals, the use of the Kawa model has enabled them to find occupational therapy intervention more meaningful to their life and personal goals, and has enabled them to engage more deeply in therapy, resulting in better mental, physical, and cultural well-being (Paxton, 2012) . Although links to spirituality, client centeredness and subjectivity can be located within MOHO, CMOP-E and the Kawa model and supported via general cultural health models, only one scoping review article specially named a conceptual model to guide practice.

One of the articles included within this scoping review, written by Pizzi and Richards (2017), describes the use of the Environment-Health-Occupation-Well-being (E-HOW) model for occupational therapy. The E-HOW model is a newly developed model that provides a framework for therapists with a focus on well-being and quality of life. Within this model, health is defined as an ever-evolving and ever-changing state of mental, physical, spiritual and social well-being, which impacts and is impacted by environmental and occupational influences. The environment is made up of physical, social and cultural contexts. Occupational participation is a key element of this model which encompasses occupational engagement, demands, routines, skills and performance. The interaction between the health, environment and occupational participation of the person, community and/or population determines the level of well-being and quality of life. An imbalance in any of these areas highlight where occupational intervention is needed and the

client's perspective gauges therapy outcomes, making this a highly client-centered model. The E-HOW model has the following seven assumptions:

- Individuals, communities, and populations strive to optimize their health, well-being and QOL.
- Health, environments, and occupational performance have a dynamic influence on QOL and well-being.
- Health behavior change can occur when clients become aware of a need for such change.
- Participation in daily activities that are meaningful promotes a positive health trajectory for daily living.
- Health is a resource used daily to pursue and participate in important and meaningful activity in life (WHO, 1986).
- Use of time for an individual, community, or population in meaningful, culturally relevant, and socially appropriate daily activities can be health promoting.
- Inter-professional collaboration facilitates clients' health, well-being, and QOL.

The E-HOW model aligns well with the current trends of well-being, health, and quality of life and can potentially be used within all settings to guide a well-being focused practice. The creators of this model also provide access to a well-being centered assessment, and complementary strategies for occupational therapists to utilize for a well-rounded approach to health and well-being promotion (Pizzi & Richards, 2017). Therefore, one of the strategies occupational therapists could use within physical rehabilitation is to use conceptual models to frame their practice enabling space for a holistic consideration of the client to occur. Conceptual models ensure of professional identity remains, while practice models can be utilized by any profession.

Lastly, four articles included within this review discussed the strategic use of a sensory-motor approach to optimize the benefits of intervention received by clients. Ander, et al. (2013), Ellis-Hill, et al. (2019), Plastow, et al. (2018) and Vujcic, et al. (2017) described how implementing a

sensory or sensory-motor approach enabled them to cater to both the physical and mental-emotional needs of their clients. Some benefits included increased engagement, strengthening of a body-mind dialogue, memory and muscle memory evocation, opportunities for connection, identity formation or re-formation, sustainable coping skills, and an overall more immersive experience within their therapeutic environment. These four articles discussed the success of this approach within both mental health, and neurological rehabilitation settings, demonstrating high levels of transferability (Ander, et al., 2013; Ellis-Hill, et al., 2019; Plastow, et al., 2018; Vujcic, et al., 2017). Additional occupational therapy literature supports this approach, and states that sensory modulation strategies can also help individuals develop increased self-awareness, ability to self-nurture, resilience, and self-esteem. With these skills, individuals develop an enhanced capacity to self-regulate, and become their own masters of well-being promotion (Scanlan, & Novak, 2015; Champagne, 2008).

Guidance from occupation-focused, cultural health, and sensory approaches/models enable occupational therapists to address the holistic person, and their physical, mental/emotional, social, spiritual, and cultural needs. With the use of newly developed, progressive models, occupational therapists can continue to grow within their role, and adapt practices to optimize the well-being of their clients through therapeutic interactions. When delving deeper into the models outlined above, occupational therapists can locate evidence-based interventions, assessments, strategies, and techniques that can aid them in this journey.

Informing occupational therapy practice and future directions

Articles included within this scoping review, and the supporting literature which formed the discussion above provide many implications for occupational therapy, and examples of how a practice which promotes positive well-being can be facilitated. Interventions, assessments, strategies, techniques, and other therapeutic actions which fall under the models and approaches mentioned within this research will be discussed within this section, with the intention that occupational therapists can utilize this information to grow their skills and add to their clinical toolkit.

There are several ways that occupational therapists can be both physical and mental well-being promoters within fast-paced primary care settings. Part of this role may include administering, and ensuring the administration, documentation and follow-through of mental health assessments. Occupational therapists are also well-equipped to facilitate individual and family/whanau education sessions, which keep the patient involved and informed of their own care and conditions. Not only should an occupational therapist collaborate with their client and their client's whanau, but also with the multi-disciplinary team, including behavioral health teams to ensure holistic care. Alongside supporting patients in participating in occupation-based interventions, which are meaningful and relevant to the patient's roles and environment, therapists can also play an active role in supporting patients to develop sustainable coping strategies; creating positive social environments within the hospital setting; and facilitating group interventions (Dahl-Popolizio, et al., 2016).

Supporting their clients to participate in activities and interventions which allow them to connect to their culture and spirituality is another way that occupational therapists can demonstrate the use of therapeutic use of self to enhance the well-being of their clients. This was demonstrated in several articles included within this review, where interventions such as African drumming, horticulture, and art were chosen and facilitated by therapists according to the interests and background of the participants who participated in each study (Plastow, 2018; Vujcic, 2017; Ellis-Hill, 2019) . When using New Zealand as a contextual example, Māori research describes seven components for a practitioner to adopt into their client-centered practice. These components include 'respect for people,' 'face to face contact,' 'look, listen... speak,' 'share and care for people,' 'be generous, be cautious,' 'do not trample over the mana/authority of people,' and 'don't flaunt your knowledge.' Any cultural or spiritually-based intervention or activity needs to be created according to each person's unique values and beliefs. An occupational therapist can develop rapport with a client while simultaneously learning and understanding them as a person. Important topics to cover include a person's connection to their extended family/whanau, the land/environment, and their history; as well as their understanding of their own health (Hopkirk & Wilson, 2014; McLauchlan, et al., 2017).

When adopting a sensory modulation approach within practice, there are several well-researched approaches that can be utilized to support clients in sensory-related skill development. Remedial intervention is one approach that involves the use of sensory and motor activities which require a person to experience an enhanced use of their tactile and proprioceptive senses. These are typically meaningful and purposeful activities (e.g. cooking) that promote skills such as motor planning, organization, bilateral integration, and postural-ocular skills. For example, one article from this review described the sensory experience and corresponding perceived benefits from handling museum objects. Using a remedial approach, participants within this study were able to tap into their tactile and visual senses to better understand themselves, their peers, and their environment. Following this sensory experience, participants reported enhanced feelings of well-being as a result of engaging in an activity which enabled them to connect their mind and body (Ander, 2013). Other approaches include accommodations and adaptations to manage hyper sensitivities and improve one's ability to attend and regulate, sensory diet programs that provide individuals with supportive sensory strategies to utilize throughout the day to cope with anxiety and other strong emotions, environmental modifications, and education sessions with both clients and their family/whanau (AOTA, 2017). Additional techniques and/or interventions include therapeutic use of self, grounding activities, orienting/alerting activities, relaxation/calming activities, self-nurturing activities, self-soothing activities, distracting activities, mindfulness activities, activities which enable an increased awareness of triggers and when/how to use coping strategies, and activities that promote a sense of connectedness. There are also several assessment, checklists, and self-rating tools that can be used by occupational therapists to identify a person's sensory-related strengths and barriers. The Adolescent/Adult Sensory Profile and Sensory Modulation Screening Tool are two commonly used assessments used with adults that were not mentioned within the scoping articles, but are valuable tools for sensory integration work in occupational therapy practice (Champagne, 2008).

In order to fully understand how the utilization of these interventions, assessments, and techniques directly impact well-being, it is suggested that additional research be completed using subjective well-being measures, along with the therapeutic techniques detailed within this review. This would be especially effective if completed under an occupational therapy scope, and within various practice settings containing populations who encounter physical challenges,

mental/emotional challenges, and both physical and mental/emotional challenges. It is also important that this research would include participants of different cultural backgrounds, so that culturally responsive practices could be demonstrated.

Limitations

Limitations present within this scoping review have been acknowledged with transparency, discussed amongst a supervisory team, and justified appropriately. Scoping reviews, in general, are at a greater risk for bias because critical appraisal is not prioritized within this particular methodology. Instead, this type of review aims to produce a breadth of literature which outlines all information available for a topic, and providing a summarized synthesis which contributes to the discussions surrounding the topic. Typically, large teams of researchers work together to produce a high volume of descriptive information related to the topic being explored, divide results, and hand-search through the literature to increase validity (Sucharew, 2019).

A limitation of this scoping review has been identified as this review was completed for the purpose of obtaining a Master's qualification, in the form of a thesis. Therefore; the scoping review process was adapted to fit the educational needs of the researcher. As it was not possible to complete this review/thesis within a large group, this work was completed by a solo researcher, increasing the risk of selection bias. This meant that only 10% of articles were co-reviewed; however, all decision-making processes were discussed with a supervisory team, who provided guidance and support. The exclusions applied to narrow results during the data gathering stage also present some limitations. These occurred due to the time, cost, and accessibility considerations. Articles published outside of the English language were excluded due to a lack of time a financial resources required for full translation; articles were only accepted within a twenty year timeframe to fit the requirements of thesis guidelines; sourcing of articles was limited to the four best-suited data-bases that were freely accessible to the researcher; only articles with instant and free access to the full-text were included to increase time efficiency and fit within the financial budget of the researcher; and only peer-reviewed journal articles were included to conserve time. Additionally, the rigor of the articles included

within this review was not discussed in depth; however, this is consistent with the scoping review guidelines and intended format.

Although adapted to fit the format of a thesis, this review consistently followed the PRISMA-ScR and the Joanna Briggs Institute guidelines for scoping reviews and intentional actions were carried out to increase reliability, credibility, and validity. For example, search strategies, inclusion and exclusion criteria were checked multiple times by both the researcher and supervisory team to ensure reliability; themes and discussions yielded by this review were consistent with the research question and objectives set out for this review, demonstrating validity; and all decision making processes were documented and demonstrated when possible to increase transparency and credibility.

This review, despite the identified limitations, has achieved it's intended objectives in that the articles included within this review produced a multi-faceted discussion that was informative of the given research question. Results evoked valuable perspectives which contribute to occupational therapy research and community discussions.

Conclusions

Articles presented within this scoping review provided valuable insight in answering the research question, "What is known about the skills, strategies, and techniques used in occupational therapy to promote positive mental well-being within physical health settings?" Collectively, the nine articles explored within this review outlined specific effective interventions, therapy tools, and strategies that can be used by occupational therapists in any setting which enable holistic well-being promotion. Information found within these articles also outlined what is known about well-being, how occupation is directly linked to well-being, and why mental well-being is often overlooked within settings that hold a scope outside of mental health, as well as identified solutions to this issue. This additional information provides justification for this topic and for future research which may explore how this data can be used in clinical practice, and the impact active mental well-being promotion might have on patient outcomes in a variety of physical and primary health settings. Supporting literature, along with current policies and procedures in both

the United States and New Zealand outline this issue as a current trend in healthcare, with future directions which align with the findings of this review.

As this literature suggests, some solutions in closing the gap between physical and mental health include developing a better understanding of well-being and making this a standard goal for not only occupational therapy, but all healthcare experiences; integrating positive mental well-being strategies into primary care; and increasing the use of person-centered practices which demonstrate cultural responsiveness, provide opportunities for spiritual expression, and facilitate creative interventions with respect to the individuality of each person.

The potential occupational therapy role in this current paradigm shift is to lead this positive change and adopt a permanent "well-being through occupation" promoter, while advocating for the holistic well-being of all people in the process. Within practice, this may mean that occupational therapists explore conceptual and practice models with a well-being focus, use cultural models to guide treatment plans, regularly incorporate positive mental health strategies into their interactions with clients, and familiarize themselves with well-being assessments and administer these within any setting to establish a mental well-being baseline for each client while staying occupationally focused.

Holistic, occupation-based well-being promotion enhances the person-centered aspects of occupational therapy and all other healthcare experiences. Taking this extra step has the potential to positively impact the mental well-being of the entire population, and better support those with mental health co-morbidities.

Chapter 6: Conclusion

This thesis was presented in the form of a scoping review, which collated information that informs the research question, “What is known about the skills, strategies, and techniques used in occupational therapy to promote mental well-being within a physical health setting?” The purpose of this review was to identify all literature closely related to this topic, in order to collate this information and form a meaningful discussion for occupational therapy practice. The topic of this scoping review and the objectives set were justified through a literature review, which highlighted a gap in literature that identified a lack of available research regarding mental well-being promotion outside of a mental health practice setting, specifically under an occupational therapy lens.

Following a scoping review priori protocol enabled the methodological process to be successful and produce results which achieved the objectives set for this thesis. Utilizing four online data-bases and a consistent search strategy, nine articles met all inclusion criteria and formed the basis of discussion for this review. The final nine articles went through a data extraction process, where characteristics of each article were then grouped into themes. These themes outlined the facilitators and barriers to addressing psychological well-being within clinical settings; what is known about the relationship between occupation and well-being; a line of action that therapists can take to bridge the gap between mental and physical health; effective approaches, interventions, and strategies that can be used to enhance well-being; and subjective well-being measures that can be used to better acknowledge the mind, body, and spirit of an individual.

Collectively, the scoping articles not only provided explicit examples of skills, strategies, and techniques that can be used for well-being promotion which are transferable across all occupational therapy settings, but extended beyond the given research question and encouraged occupational therapists and other health professionals to be leaders in the positive change occurring within today’s healthcare system. This change is one that places value in the subjective holistic well-being of each individual across all cultural backgrounds, and prepares healthcare professionals to evaluate and address the mental well-being of their client alongside regular therapy interventions. Bridging the gap between mental health and physical health requires occupational therapists to return to their philosophical roots embedded in well-being concepts,

carrying with them the modern-day, evidence-based knowledge to lead a person-centered, culturally informed practice which enables their clients to achieve holistic and sustainable outcomes while doing the occupations which are meaningful to their occupational self.

In order to reinforce this next paradigm shift, it is recommended that additional research be completed to provide further meaningful discussions for occupational therapy, occupational identity-based well-being promotion, and integrated care. It is suggested that future researchers also explore this topic using more rigorous methodologies to enhance the evidence-base for the use of mental well-being promotion techniques within physical health settings to justify this occupational identity based approach as a standard practice.

Appendices:

Appendix A: Level one screening - excluded articles

1. Article	Database	Reason for exclusion
2. Schmalenberger, Gessert, Starr & Giebenhain (2012)	ProQuest	• Less than 3 keywords present within the abstract
3. Forsberg-Warleby, Miller & Blomstrand (2004)	ProQuest	• Less than 3 keywords present within the abstract
4. Maricic & Stambuk (2015)	ProQuest	• Less than 3 keywords present within the abstract • Title not in English
5. Strauss-Blasche, Muhry, Lehofer, Moser & Marktl (2004)	ProQuest	• Less than 3 keywords present within the abstract
6. Rowold (2011)	ProQuest	• Less than 3 keywords present within the abstract
7. Lowis, Edwards & Burton (2009)	ProQuest	• Less than 3 keywords present within the abstract
8. Schmalenberger, teal. (2012)	ProQuest	• Less than 3 keywords present within the abstract
9. Yaghoobzadeh, Soleimani, Allen, Chan & Herth (2018)	ProQuest	• Less than 3 keywords present within the abstract

10. Kretschmer, Schmidt & Griefahn (2013)	ProQuest	• Less than 3 keywords present within the abstract
11. Lee & Mccormick (2004)	ProQuest	• Less than 3 keywords present within the abstract
12. Lee & Howard (2019)	ProQuest	• Less than 3 keywords present within the abstract
13. Tehrani & Khorzoghi (2017)	ProQuest	• Less than 3 keywords present within the abstract
14. Chung (2004)	ProQuest	• Less than 3 keywords present within the abstract
15. Van de Ven, et al. (2017)	ProQuest	• Less than 3 keywords present within the abstract
16. Anderson, et al. (2012)	ProQuest	• Less than 3 keywords present within the abstract
17. Chivukula, Hariharan, Rana, Thomas & Andrew (2017)	ProQuest	• Less than 3 keywords present within the abstract
18. Barclay, New, Morgan & Guilcher (2019)	ProQuest	• Less than 3 keywords present within the abstract

19. Couvreur, Dejonghe, Detand & Goossens (2013)	ProQuest	• Less than 3 keywords present within the abstract
20. Margaret, et al. (2003)	ProQuest	• Less than 3 keywords present within the abstract
21. Grocke (2009)	ProQuest	• Less than 3 keywords present within the abstract
22. Plumb & Stickley (2017)	ProQuest	• Less than 3 keywords present within the abstract
23. Cordes, et al. (2019)	ProQuest	• Less than 3 keywords present within the abstract
24. Vancampfort, et al. (2011)	ProQuest	• Less than 3 keywords present within the abstract
25. Windle, Hughes, Linck, Russell & Woods (2010)	EBSCOhost	• Less than 3 keywords present within the abstract
26. Collins, Fitzgerald, Sachs-Ericsson, Scherer, et al. (2006)	EBSCOhost	• Less than 3 keywords present within the abstract
27. Vestling, Ramel & Iwarsson (2005)	EBSCOhost	• Less than 3 keywords present within the abstract
28. Chen, Tu & Ho (2013)	EBSCOhost	• Less than 3 keywords present within the abstract

29. Macdougall, O'Halloran, Sherry & Shields (2016)	EBSCOhost	• Less than 3 keywords present within the abstract
30. Fournier, et al. (2019)	EBSCOhost	• Less than 3 keywords present within the abstract
31. Cheatham (2012)	EBSCOhost	• Less than 3 keywords present within the abstract
32. Conradsson, Littbrand, Lindelof, Gustafson & Rosendahl (2010)	EBSCOhost	• Less than 3 keywords present within the abstract • Full-text not available through chosen databases
33. Mellor, Moore & Siong (2015)	EBSCOhost	• Less than 3 keywords present within the abstract
34. Tsaousis, Karademas & Kalatzi (2013)	EBSCOhost	• Less than 3 keywords present within the abstract
35. Gillen, Jewell, Faucett & Yelin (2004)	EBSCOhost	• Less than 3 keywords present within the abstract
36. Nygren, iwarsson, K.E. Isacsson & Dehlin (2001)	EBSCOhost	• Less than 3 keywords present within the abstract
37. Van de Vliet, t al. (2003)	EBSCOhost	• Less than 3 keywords present within the abstract

38. Brandthill, et al. (2001)	EBSCOhost	• Less than 3 keywords present within the abstract
39. Flutterman & Claire (2011)	EBSCOhost	• Less than 3 keywords present within the abstract
40. Jebakani, Seth, Pahinian, Tipandjan & Devi (2015)	EBSCOhost	• Less than 3 keywords present within the abstract
41. Gooding (2018)	EBSCOhost	• Less than 3 keywords present within the abstract
42. Hammel & Iwama (2012)	EBSCOhost	• Less than 3 keywords present within the abstract
43. Pizzi & Briggs (2004)	EBSCOhost	• Less than 3 keywords present within the abstract
44. Cruz, Kigali, Hewitt & Salamat (2018)	EBSCOhost	• Less than 3 keywords present within the abstract
45. Weinberg, Hall & Sverdlik (2015)	EBSCOhost	• Less than 3 keywords present within the abstract
46. Hellen (2002)	EBSCOhost	• Less than 3 keywords present within the abstract
47. Persson, Rivano-Fischer & Eklund (2004)	Google Scholar	• "Well-being" is not present within the title

		• Less than 3 keywords present within the abstract
48. Foruzandeh & Parvin (2013)	Google Scholar	• "Well-being" is not present within the title
49. Alexandratos, Barnett & Thomas (2012)	Google Scholar	• "Well-being" is not present within the title
50. Anstey, Windsor, Luszcz & Andrews (2006)	Google Scholar	• Less than 3 keywords present within the abstract
51. Spijkerman, Pots & Bohlmeijer (2016)	Google Scholar	• "Well-being" is not present within the title
52. Cheville. Troxel, Basford & Kornblith (2008)	Google Scholar	• "Well-being" is not present within the title
53. Pooremamali, Persson & Eklund (2011)	Google Scholar	• "Well-being" is not present within the title
54. Kumr, et al (2014)	Google Scholar	• "Well-being" is not present within the title
55. Krupa, Mclean, Eastabrook, Bonham & Baksh (2003)	Google Scholar	• "Well-being" is not present within the title
56. Berger, McAteer, Schneider & Kaldenberg (2013)	Google Scholar	• "Well-being" is not present within the title
57. Frederick, et al (2007)	Google Scholar	• "Well-being" is not present within the title

58. Finlayson, Dahl Garcia & Cho (2008)	Google Scholar	• "Well-being" is not present within the title
59. Sarsak (2018)	Google Scholar	• "Well-being" is not present within the title
60. Menon, Korner-Bitensky, Kastner, McKibbon & Straus (2009)	Google Scholar	• "Well-being" is not present within the title
61. Dooley & Hinojosa (2004)	Google Scholar	• "Well-being" is not present within the title • Less than 3 keywords present within the abstract
62. Rebeiro, Day, Semeniuk, O'Brien & Wilson (2000)	Google Scholar	• "Well-being" is not present within the title • Less than 3 keywords present within the abstract
63. Radomski, Davidson, Voydetich & Erickson (2009)	Google Scholar	• "Well-being" is not present within the title
64. Ikiugu, Nissen, Bellar, Maassen & Van Peursem (2017)	Google Scholar	• "Well-being" is not present within the title
65. Stubbs & Dickens (2008)	Google Scholar	• "Well-being" is not present within the title
66. Burson, et al (2010)	Google Scholar	• "Well-being" is not present within the title

Appendix B: Level one screening – included articles

Article	Well-being in the title	Keywords within abstract
1. Coffey, Gallagher, Desmond & Royal (2014) EBSCOhost	Yes	Well-being Rehabilitation Intervention
2. Haslam, et al. (2008) EBSCOhost	Yes	Well-being Mental health Rehabilitation
3. Chen, Snyder & Krichbaum (2001) EBSCOhost	Yes	Well-being Mental health Intervention
4. Hayward & Taylor (2011) EBSCOhost	Yes	Occupational therapy Strategies Well-being
5. Plastow, et al. (2018) EBSCOhost	Yes	Occupational therapist Mental well-being Intervention
6. Northcott, Simpson, Moss, Ahmed & Hilari (2017) EBSCOhost	Yes	Mental health Well-being Skills
7. Johansson & Bjorklund (2015) EBSCOhost	Yes	Well-being Intervention Mental health
8. Ghodsbin, Safaei, Jahanbin, Ostovan & Keshvarzi (2015) Google Scholar	Yes	Health Intervention Well-being
9. Verwer, Van Leeuwenhoek, Boiler & Post (2016)	Yes	Intervention Well-being

ProQuest		Mental health
10. Ojala, Nygard, Huhtala, Bohle & Nikkari (2019) ProQuest	Yes	Intervention Rehabilitation Well-being Mental health
11. Aghaie, Roshan, Mohamadkhani, Shaeeri, & Gholami-Fesharaki (2018) ProQuest	Yes	Intervention Well-being Mental health
12. Eklund & Leufstadius (2007) ProQuest	Yes	Health Well-being Occupational therapy
13. Pizzi & Richards (2017) ProQuest	Yes	Occupational therapy Health Well-being
14. Lloyd (2000) EBSCOhost	Yes	Health Intervention Well-being
15. Liddle, Reaston, Pachana, Mitchell, Gustafsson (2014) ProQuest	Yes	Well-being Health Intervention
16. Ellis-Hill, et al. (2019) ProQuest	Yes	Well-being Rehabilitation Intervention
17. Gorgens-Ekermans, et al. (2016) ProQuest	Yes	Well-being Health Intervention
18. Parkinson, Sibbrit, Bolton, Van Rotterdam & Villadsen (2013) ProQuest	Yes	Well-being Intervention Health

19. Lappalainen, Pakkala & Nikander (2019) ProQuest	Yes	Intervention Well-being Mental health
20. Green (2000) EBSCOhost	Yes	Health Well-being Occupational therapist
21. Bertilsson, Vaez, Waern, Aalborg & Hensing (2015) EBSCOhost	Yes	Well-being Health Interventions
22. Pizzi (2015) EBSCOhost	Yes	Occupational therapy Health Well-being
23. Vujic, et al (2017) Google Scholar	Yes	Mental health Well-being Intervention
24. Hamed, Tariah & Hawamdeh (2012) Google Scholar	Yes	Health Well-being Interventions
25. Ander, et al (2013) Google Scholar	Yes	Occupational therapy Neurological rehabilitation Mental health
26. Clark, et al (2012) Google Scholar	Yes	Health Interventions Occupational therapy Well-being Mental health

(4 duplicates between ProQuest & Ebscohost articles)

11 articles from EBSCOhost, 9 articles from ProQuest, and 4 articles from google scholar. 0 articles from gale Cengage.

Appendix C: Data extraction chart – process used to determine level two screening results

Key: Articles highlighted in green meet all inclusion criteria, articles highlighted in yellow, red or pink are excluded due to the reason detailed in the key below.

Key = article meets all inclusion criteria – included for scoping review

= lack of occupation-centered, occupation-based and/or occupation-focused components

= number of keywords does not match inclusion criteria

= setting area does not match population for scoping review

Author/'s + keywords	Location/setting	Study Aim/s	Study design/methods	Intervention and focus population	Occupation centered, based and/or focused component
Vujcic, et al. (2017) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions "strategies" "skills" "techniques" =7/10**	Serbia/Belgrade – mental health	The aim of this study is to understand how spending time and performing horticulture therapy in specially designed urban green environments can improve mental health.	Before and after, post-evaluation using the DASS21 scale as a multimodal method. 21 question questionnaire + 3 sub scales with 7 phrases to describe feelings. Evaluation performed using a quarter-scale. Empirical research.	Nature-based therapy/horticulture therapy to improve mental health and well-being for adults dwelling in urban areas. Control group received occupational art therapy + conventional therapy, intervention group received horticulture therapy. Participants were psychiatric patients who are members of the day hospital of the institute of mental health in Belgrade.	Occupation-based intervention of participating in horticulture activities within a nature-based therapy programme to enhance mental well-being.
Key Findings/Themes: The results of this study have shown that recuperation from stress, depression and anxiety was possible and much more complete when participants were involved in horticulture therapy as a nature-based solution for improving mental health. The horticulture therapy programme at the Jevremovac Botanical Garden had positive influence on patients, through a notable reduction of stress. Horticulture, in a variety of contexts, has proved itself to benefit a wide range of clients' health and wellbeing, involving physical, social or psychological health and enabling vulnerable individuals to reach their true potential.					
Hamed, Tariah & Hawamdeh (2012)	Amman, Jordan – MS service	The purpose of this study is to explore personal factors affecting functioning and well-being in Jordanian patients with MS.	Questionnaire to explore patients perspectives on personal factors affecting their perceived daily	Participants were Jordanian patients with a diagnosis of multiple sclerosis. There was no intervention process discussed; however, the questionairre	No clear occupational factor present within outcomes.

"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =7/10			functioning and well-being. Qualitative methods.	described throughout this article would provide health professionals with valuable information that would enable them to provide better care for their clients.	
Key Findings/Themes: Facilitative contextual factors to the perceived daily functioning and well-being of patients with MS include positive feelings, social support, personal characteristics, financial and medical sufficiency, religion, community awareness, whereas hindering contextual factors include physical, psychological and psychosocial disabilities, negative feelings, and social stigma. Identifying personal factors affecting patients with MS can improve their perceived daily functioning and well-being by eliminating the hindering environmental factors and providing or supporting the facilitative factors.					
Ander, et al. (2013) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =9/10**	London – inpatient mental health setting with neuro-rehab services	The study investigated the impact of museum object handling sessions on hospital clients receiving occupational therapy in neurological rehabilitation and in an older adult acute inpatient mental health service.	The research used a qualitative approach based on objectivist and constructionist methods, from which themes typical of the object handling sessions were derived.	The use of museum object handling sessions to improve well-being in mental health service users and neuro-rehabilitation clients. Participants were predominantly a retired age group.	Occupation-based intervention of engaging in object handling sessions.
Key Findings/Themes: Themes emerging from detailed analysis of discourse involving clients (n = 82) and healthcare staff (n = 8) comprised: distraction and decreasing negative emotion; increasing vitality and participation; tactile stimulation; conversational and social skills; increasing a sense of identity; novel perspectives and thoughts; learning new things; enjoyment and positive emotion. Critical success factors included: -good session facilitation for mitigating insecurity, ward staff support and the use of authentic heritage objects. -Museums and their collections can be a valuable addition to cultural and arts occupations, in particular for long-stay hospital clients. The themes revealed were specific to the rehabilitation and mental health contexts and arose from the variety of client engagement and interaction types, session processes and wellbeing outcomes. Key themes included increasing positive emotion, decreasing negative emotion, enhanced vitality, tactile stimulation, improved social skills and sense of identity, development of novel perspectives and thoughts and acquisition of new knowledge. Our findings indicated that engaging with objects alleviated some effects of long-term hospitalization, such as the deterioration of confidence and identity; the loss of stimulating social and environmental occupations; rehabilitation goals; discharge of negative emotions and a preoccupation with illness. In particular, neurologically impaired participants, for whom the effects of hospitalization were extreme and deeply embedded, demonstrated subtle signs of engagement with the objects, and small improvements in wellbeing for which the sensitivity of qualitative methods was appropriate.					
Clark, et al. (2012) **"well-being" "mental health" "health" "physical rehabilitation"**	Southern California, USA – older persons	The aim of this study was to determine the effectiveness and cost-effectiveness of a preventive lifestyle-based occupational therapy intervention, administered in a variety of	Well Elderly RCT	Lifestyle intervention for promoting the well-being of independently living ethnically diverse older people.	Occupation-based interventions discussed.

"rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =6/10		community-based sites, in improving mental and physical well-being and cognitive functioning in ethnically diverse older people.			
Key Findings/Themes: A lifestyle-oriented occupational therapy intervention has beneficial effects for ethnically diverse older people recruited from a wide array of community settings. Because the intervention is cost-effective and is applicable on a wide-scale basis, it has the potential to help reduce health decline and promote well-being in older people.					
Green (2000) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =5/10**	Flintshire, NE Wales - nursing home setting	The aim of this study was to describe a project designed to improve the health and well-being of people in resident nursing homes and discuss how increased pro-active, additional medicinal input/management, and preventative measures could have a major health gain effect.	Description of a 12-month pilot project	Increased pharmaceutical intervention and increased frequency of assessment to ensure that clients within a nursing home setting are receiving the best care.	Although the need for occupational therapy for this population group was briefly discussed, there is no clear link to occupation-centered, occupation-based, or occupation-focused concepts. Intervention, outcomes and discussion were primarily focused on increased pharmaceutical input and provision of services.
Key Findings/Themes: This project identified a variety of needs that were not being met within the nursing home such as: -lack of input from physiotherapists and occupational therapists regarding interventions for strength, stamina, sitting/standing practice, administering appropriate mobility aids and specialized equipment to promote independence. -training issues for nursing staff within the areas of continence promotion, tissue viability and medicine management. -more consistent care and quality of prescribing from GP's. A key them mentioned that an increase in service provision proves to have positive outcomes for both the health and well-being of the clients, as well as financial benefits for the health-care setting.					
Coffey, Gallagher, Desmond & Ryall (2014) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =6/10**	Ireland - two urban hospital settings that provide specialized, multi-disciplinary, inpatient rehabilitation programmes.	This study examined the relationships between tenacious goal pursuit (TGP), flexible goal adjustment (FGA), and affective well-being in a sample of individuals with lower limb amputations. The first objective was to examine whether TGP and FGA accounted for a significant proportion of the variance in positive and negative affect, controlling for sociodemographic (age, gender) and clinical (cause of amputation, time since amputation, average pain intensity) factors. Drawing on the assumptions of this model and previous research, it was hypothesized that both adaptive self-regulatory modes would be positively associated with positive affect and negatively associated with negative affect, with associations being strongest for FGA. The second	Cross-sectional quantitative design	Application of the dual-process model of adaptive self-regulation for psychological adjustment to lower limb amputation. Participants ranged from ages 25-89.	This study discussed how mood and affect were positively affected by the described model; however, there were no links made to occupational concepts.

		objective was to investigate whether TGP or FGA moderated the effect of age and pain intensity on affective well-being in this population			
Key Findings/Themes: The dual-process model provides a useful framework for examining psychosocial adjustment to amputation that might help to elucidate the mechanisms underlying this process and explain the diversity observed in people's affective responses. The assimilative and accommodative modes described in this model may offer some insight into how particular psychological traits are associated with subjective well-being in this population.					
Haslam, et al. (2008) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =7/10**	UK – neuropsychological rehabilitation	To examine the extent to which belonging to multiple groups prior to stroke and the maintenance of those group memberships (as measured by the Exeter Identity Transitions Scales, EXITS) predicted well-being after stroke.	A survey study – qualitative research	Group memberships for individual's who have sustained a stoke – neuropsychological rehabilitation context.	Key element of this piece of research is concerned with participation in group memberships. This could be defined as obtaining an occupational role within a group and/or participating in group activities. This falls under an occupation-centered intervention for individuals recovering from stroke.
Key Findings/Themes: Relationships between group membership measures "individuals who hold multiple group memberships prior to a stroke are more likely to maintain them after the stroke and are also more likely to develop new group memberships. In addition, the development of new group memberships after a stroke is independent of the maintenance of old group memberships. In other words, the effort taken to maintain old group memberships does not seem to affect individuals' ability to join new groups." Relationships between group memberships and well-being: "Consistent with H1, it is apparent that having multiple group memberships prior to the stroke (assessed through both group listings and group affiliation ratings) was associated with greater life satisfaction post-stroke but was unrelated to chronic stress. Consistent with H2, the maintenance of old group memberships after the stroke (again assessed through both group listings and group affiliation ratings) was also correlated with both well-being measures—being positively correlated with life satisfaction and negatively correlated with stress. Participants' well-being was not associated with the number of new group memberships acquired post-stroke (which might reflect the low number of new groups individuals acquired)." Relationships between cognitive failures and well-being: "there was a significant negative relationship between participants' reports of their cognitive failures and their well-being, such that the more cognitive failures people perceived themselves to have the more dissatisfied they reported being with their life and the more likely they were to experience chronic stress (although the latter effect was only marginally significant; p ¼ .06). Interestingly too, the incidence of perceived cognitive failures was also negatively correlated with participants' reports of their ability to maintain pre-existing group memberships after their stroke."					
Bertilsson, Vaez, Waern, Aalborg & Hensing (2015) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =5/10**	Vastra Gotaland, Sweden - Adults receiving occupational health and social insurance services.	The aim of this study was to estimate whether self-assessed mental well-being and work capacity determines future sickness absence.	Prospective cohort study	Individuals aged 19-64 years who had been reported as sick-listed by an employer to the Swedish Social Insurance Agency (SSIA) between February 18-April 15, 2008. Interventions were not discussed throughout this study; however, results were determined by measures from a questionnaire, which was sent out to participants to gain information regarding the determinants of future sickness absence, specifically mental well-being and work capacity.	No specific intervention was discussed within this study, so outcomes are not directly concerned with occupational therapy concepts; however, the discussion of work abilities is somewhat discussed with an occupation-focused view.

Key Findings/Themes: Mental well-being and work capacity emerged as determinants of future sickness absence (SA). Screening in health care could facilitate early identification of persons in need of interventions to prevent future SA.					
Chen, Snyder & Krichbaum (2001) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =6/10**	Taichung, Taiwan – community older persons	The purpose of this cross-sectional, comparative study was to compare the differences on physical well-being (physical health status, blood pressure, and the occurrence of falls) and psychological well-being (mental health status and mood states) of Taiwanese community-dwelling elders who had practiced Tai Chi for one year or longer and those who did not practice Tai Chi or exercise.	Cross-sectional comparative study	Tai chi for community-dwelling elders aged 65+.	Occupation-based intervention of participating in tai chi.
Key Findings/Themes: Results showed that subjects who practiced Tai Chi had better physical and mental health statuses, lower blood pressure, fewer falls within the past year, less mood disturbance, and more positive mood states than those who did not practice Tai Chi (all p values < .05). Findings provide a basis for using Tai Chi as a therapeutic intervention and incorporating Tai Chi into community programs to promote well being of community-dwelling elders.					
Hayward & Taylor (2011) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =8/10**	UK - West Midlands rehabilitation centre	This paper proposes the construct of eudaimonic well-being as both relevant and valuable to occupational therapy in re-conceptualizing the profession, countering some of the central tensions in the identity of the profession and re-asserting that well-being through occupation is for all and for humanity. Also, this paper proposes that well-being, in a eudaimonic sense, should be advertised and evidenced as a routine outcome of occupational therapy and consolidated into occupational therapy models as a relevant and meaningful concept.	Contemporary critique	This article describes a shift in focus of outcomes within occupational therapy practice to be more centered around eudaimonic well-being. The author's perspective provides valuable recommendations for future assessment, intervention and outcome measurement to promote increased client-centeredness and to move toward a more internationalized approach to practice in order to be more inclusive to all of humanity.	Article demonstrates occupation-centered perspectives throughout.
Key Findings/Themes: This article argues that by including eudaimonic well-being as a core goal of occupational therapy, therapists would better serve diverse cultures and all of humanity. The author provides a strong justification for how eudainomic well-being directly relates to the occupational therapy philosophy and that it can effectively be incorporated into practice to not only enhance client's psychological well-being throughout therapy but create structure for more client-centered goals and the choosing of occupation-based interventions.					
Plastow, et al. (2018) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =7/10**	Western Cape, South Africa - Private mental health clinic	To examine the effects of an occupational therapist–led African drumming group on mental well-being among adult psychiatric inpatients with mood disorders.	Pilot study – quasi-experimental pre-test, post-test design with no control group.	African drumming sessions as a part of an occupational therapy programme comprised of therapeutic group activities which include life skills, arts and crafts, and relaxation groups. Participants were adults who were already involved with this setting's occupational therapy and inpatient services.	Occupation-based intervention of drumming within a group.

Key Findings/Themes: Occupational therapy–led drumming groups based on the principles of a sensory–motor approach may be an effective intervention to improve positive affect and experiences of enjoyment in adults with acute mood disorders					
Northcott, Simpson, Moss, Ahmed & Hilari (2017) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =9/10**	UK – neuro-rehab	To explore UK speech-and-language therapists' (SLTs) clinical practice in addressing the psychological and social needs of people with aphasia, including their experiences of working with mental health professionals. A 22-item online survey was distributed to UK SLTs via the British Aphasiology Society mailing list and Clinical Excellence Networks. Results were analyzed using descriptive statistics and qualitative content analysis.	Online survey	SLT's who replied to this survey described strategies they use in order to address the psychosocial well-being of their clients as well as stated issues/barriers that prevented decreased their ability to address mental health issues, as well as potential institutional solutions.	Although the focus of this article was to gain a SLT perspective on this issue, engagement in both therapy interventions and social participation was discussed throughout. With an occupation-centered perspective, this article provides many relevant implications for occupational therapy.
Key Findings/Themes: Most SLT's involved with this study reported that they felt that addressing psychological well-being and social participation was a part of their role. Some skills that they used to do this included supportive listening and holistic and collaborative goal setting, which included goals for social participation. Only 42% of SLT's felt confident in effectively and ethically addressing the psychological needs of their clients. The main barriers to addressing psychosocial well-being were time/caseload pressures (72%), feeling under-skilled/lack of training (64%), and lack of ongoing support (61%). The main barriers to referring on to mental health professionals were that mental health professionals were perceived as under-skilled when working with people with aphasia (44%). were difficult to access (41%); and provided only a limited service (37%). A main theme from the free-text responses was a concern that those with aphasia, particularly more severe aphasia, received inadequate psychological support due to the stretched nature of many mental health services; mental health professionals lacking skills working with aphasia; and SLTs lacking the necessary time, training and support. The main enablers to addressing psychosocial well-being were collaborative working between SLTs and stroke-specialist clinical psychologists; SLTs with training in providing psychological and social therapy; and ongoing support provided by the voluntary sector. In order to improve psychological services for this client group, there is a strong case that stroke-specialist mental health professionals should strive to make their service truly accessible to people with even severe aphasia, which may involve working more closely with SLTs. Further, improving the skills and confidence of SLTs may be an effective way of addressing psychological distress in people with aphasia.				
Pizzi (2015) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =8/10**	Brooklyn, NY USA – end of life care	This paper examines client-centered care at the end of life as that which enables engagement in meaningful occupation and promotes health and well-being until one dies.	A large interdisciplinary study in the form of interviews	The population group involved with this article are individuals receiving hospice care and who are the end-of-life stages.	Occupation-centered perspective present throughout article.
Key Findings/Themes: Client-centered care is deemed to be an important approach at the end of life. It is determined that client-centered care at the end of life is vital to promote quality of life, health, and well-being.					

Five major themes emerged from the data of the larger interdisciplinary study: holistic, framing and re-framing practice, client and family-centered care, being with dying, and interdisciplinary teaming. The overarching theme was Promoting a Good Death. Throughout the client-centered theme, three sub-themes emerged: adaptation, client goals, and choices.					
Johansson & Bjorklund (2015) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =6/10**	Jonkoping, Sweden – elderly persons who reside within this geographical location.	The aim of this study was to investigate whether a four-month occupational based health-promoting programme for older persons living in community dwellings could maintain/improv e their general health and well-being	Quasi-experimental design with a non-equivalent control group and with semi-structured interviews. A pilot study preceded this study.	Participants were 65+ years of age who dwell in the community and who do not receive homecare. The intervention group were given health-promoting interventions for two hours a week for four months, as well as up to four hours of individual interventions.	Occupation-focused interventions and occupation-centered discussion throughout article.
Key Findings/Themes: This study showed that a four-month occupation-based health-promotion programme, led by occupational therapists, improved older persons' self-experienced health, vitality, mental health, and their sense of psychological well-being. Participating in meaningful, challenging group activities in different environments stimulates the occupational adaptation process; this is something occupational therapists could use to empower older persons to find their optimal occupational lives.					
Lloyd (2000) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =5/10**	UK – end of life care.	This article discusses the circumstances in which older people die in Britain, focusing on the nature of health and social care interventions. It argues that the social context of aging, reflected in the policy framework of health and social care, perpetuates a negative view of aging that is particularly damaging to older people as the approach the end of their lives. It also argues that a tertiary prevention approach has particular advantages in that it enables crucial links to be drawn between individual and collective responsibilities for health and it enables end-of-life care for older people to be understood in the context of their health and well-being over the whole life course.	Discussion article.	The population discussed within this article is older persons who are approaching the end of their lives. Interventions discussed within this article are focused around how to enable individuals at the end of their lives to have a "good death." This approach was informed by Ashton and Seymour's (1993) model of tertiary prevention, which enables health professionals to link well-being at the end of life to the individual's whole lifespan by focusing on the linkages between subjective experience and the proper social context of living and dying in old age.	No clear links to occupation-centered, occupation-based or occupation-focused concepts.
Key Findings/Themes: The author discusses how a tertiary prevention approach to end-of-life care offers a way for health professionals to link well-being at the end of an individual's life to their entire lifespan and subjective experiences. This contemporary palliative care practice enables the development of supportive relationships with individuals who are going through the processes of dying and minimizes fear by ensuring that care is the central focus of these relationships. It is argued throughout this article that this is a favorable approach compared to other models of health promotion.					
Ghodsbin, Safaei, Jahanbin, Ostovan & Keshvarzi (2015) **"well-being"**	Shiraz, Iran - Imam Reza specialty and subspecialty clinic for coronary artery disease (CAD)	The aim of this study is to evaluate the effect of positive thinking on the level of spiritual health in the patients with coronary artery disease (CAD) referred	RCT with before, after and one-month follow up.	Participants had a confirmed diagnosis of coronary artery disease with the ability to read and write, understand and communicate in the Persian	No clear links to occupation-centered, occupation-based or occupation-focused concepts.

"mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =6/10		to Imam Reza specialty and subspecialty clinic in Shiraz, Iran.		language and who were residents of the study's geographical location. The patients in the intervention group participated in training sessions on positive thinking consisted of one 75-minute session per week for 7 consecutive weeks. The topics included the importance of anthropology and self-analysis, cognitive errors, definition and the role of positive thinking in life, overcoming the disease, the importance of prayers, communication with God and thanksgiving, training relaxation techniques, visualization and positive imagery and considering relaxation factors (prayer, patience, forgiveness, and trust in God) as well as the causes of fear of death.	
Key Findings/Themes: This article concluded that positive thinking training could improve spiritual well-being (SWB) in the patients with CAD. Positive thinking could increase the patients' SWB through reminding them of their positive aspects of their life, improving their communication with God as a divine source and teaching those strategies such as thanksgiving. In general, optimism and positive thinking training are important measures in the treatment of the patients suffering from CAD and should be considered in nursing interventions and educations.					
Liddle, et al. (2019) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =4/10**	Southeast Queensland, AU - Community older persons.	This study explored the differences between retired drivers and those with a stated plan to retire within 12 months in sociodemographic, well-being and lifestyle outcomes.	This study extracted all baseline data from a randomized clinical trial exploring the effectiveness of a group program for older retiring and retired drivers.	The population described within this study were older retiring and retired drivers who were over the age of 60 and who were living independently in the community. The geriatric anxiety inventory and the geriatric depression scale were used to measure mood. The transport and lifestyle self-efficacy questionnaire was used to measure self-efficacy. Participants were encouraged to use a diary or calendar to accurately recall occasions in which they left the home (episodes away from home), the reason for the trip, and the mode of transport used, over the previous week. Also, participants were interviewed to gain information regarding their involvement in community activists and modes of	Dialogue-based study with slight occupation-centered discussion.

				transportation. These measures were used to determine lifestyle outcomes.	
Key Findings/Themes: Both retired and retiring drivers require support for driving cessation and community engagement. Retiring drivers may be in a critical position to engage in driving cessation interventions to improve self-efficacy and begin adapting community mobility.					
Ellis-Hill, et al. (2019) **"well-being"** **"mental health"** **"health"** **"physical rehabilitation"** **"rehabilitation"** **"occupational therapy"** **"interventions"** **"strategies" "skills"** **"techniques"** **=7/10**	Bournemouth, UK - Stroke rehabilitation setting.	To evaluate (1) the acceptability of 'HeART of Stroke' (HoS), a community-based arts and health group intervention, to increase psychological well-being; and (2) the feasibility of a definitive randomized controlled trial (RCT). The following were the specific objectives: 1. Assess the acceptability of key aspects of study design, randomization and recruitment processes, and of the HoS group intervention. 2. Estimate recruitment and short-term retention rates. 3. Estimate HoS group attendance rates. 4. Assess the suitability of the outcome measures and feasibility of the assessment strategy. 5. Refine the selection of the outcome measures, in particular to help inform the selection of the primary outcome for the full-scale RCT. 6. Explore, qualitatively, individuals' experiences of participating in the study and gather feedback about the intervention and outcome measures. 7. Collect data on the SDs of outcome measures to in-form a sample size calculation for a larger trial and obtain preliminary estimates of effect size. 8. Refine the HoS group intervention and its delivery. 9. Explore differences in processes between the two study centers. 10. Identify, measure and value resources required to deliver the intervention in the community. 11. Develop and pilot data collection tools to measure	Two-centre, 24-month, parallel-arm RCT feasibility study with qualitative and economic components.	Community-dwelling adults ≤2 years post-stroke recruited via hospital clinical teams/databases or community stroke/rehabilitation teams. Artist-facilitated arts and health group intervention (HoS) (ten 2-hour sessions over 14 weeks) plus usual care (UC) versus UC.	Occupation-based intervention described throughout study.

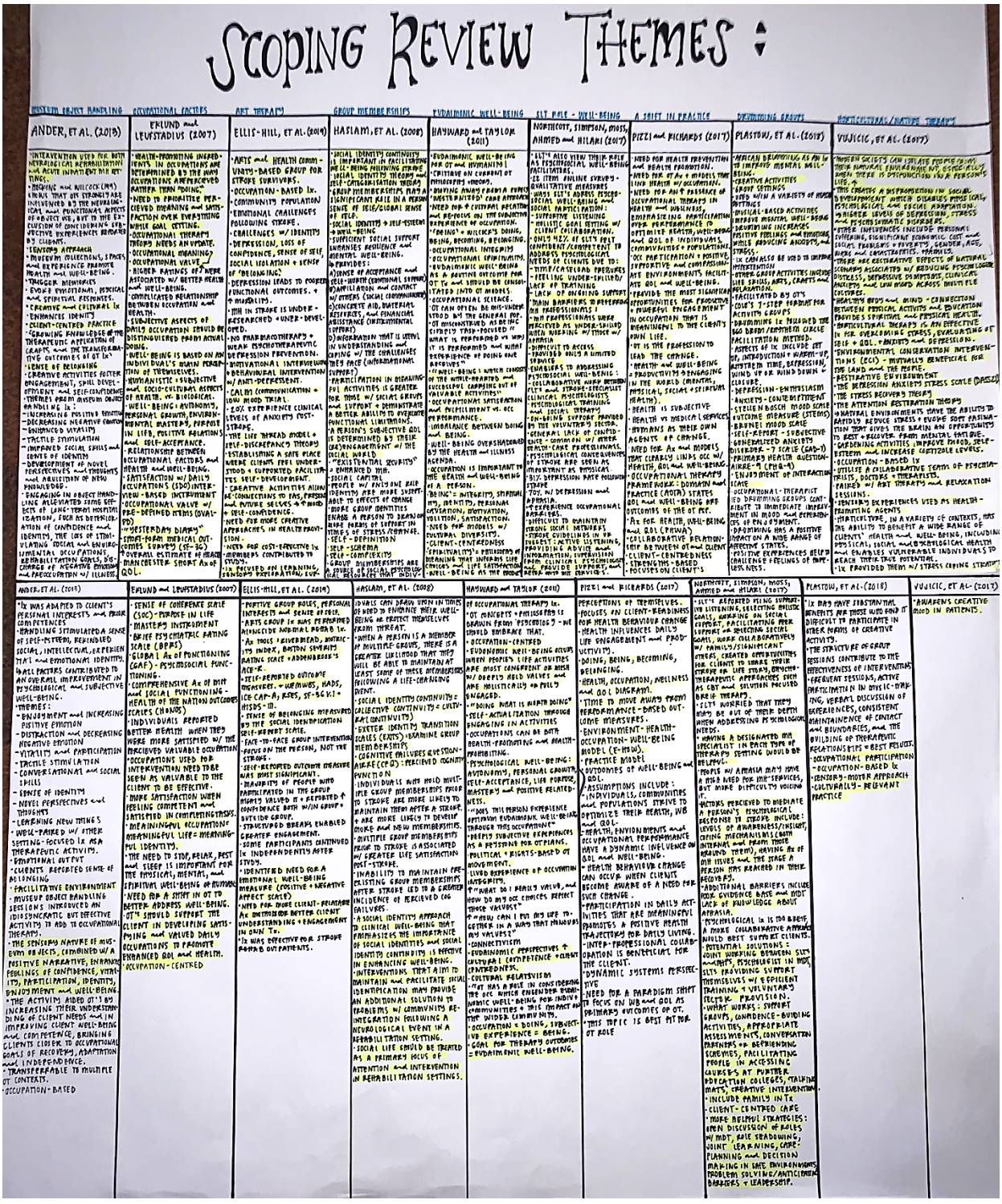
		resource use in the follow-up period to inform the design of a future within-trial economic evaluation, and estimate the cost of delivering HoS.			
Key Findings/Themes: Findings indicate that an arts and health intervention is an effective for inpatients, and that this would also be feasible for individuals who have had a stroke and live in the community. Participants reported increased self-confidence both within the arts group as well as outside of the group and more positive emotional well-being.					
Gorgens-Ekermans & Steyn (2016) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =6/10**	South Africa - vocational rehab	This study investigated the relationships between the personal psychological resources of optimism and self-efficacy, and their apparent effect on the ability of an individual to experience meaningful work (manifested in engagement with the task and commitment to the organization), to assess their combined effect on employee subjective well-being (i.e. better psychological health and more work-life satisfaction)	A correlational ex post facto research design	This article describes how a structural model of subjective well-being at work could be implemented to determine how optimism and self-efficacy effect an individual's personal experiences with work tasks, and how well-being, psychological health and work-life satisfaction influences a person's happiness, positive mental health and personal prosperity.	This article discusses psychological factors which influence an individual's engagement in work occupations. It could be argued that this article discusses occupation-centered views.
Key Findings/Themes: The results suggested that optimism directly influences psychological health. The relationship between optimism and subjective well-being (i.e. psychological health and satisfaction with work-life) was further highlighted by means of an indirect effect, mediated by a combination of work engagement and organizational commitment (i.e. meaningfulness). The structural model results revealed that no significant paths were evident between self-efficacy and any of the other variables. Practically, the results highlight the vital role of optimism in experienced subjective well-being, and suggest that investing in interventions to increase optimism in employees might well be justified.					
Parkinson, Sibbritt, Bolton, Van RotterdM & Villadsen (2013) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =5/10**	Queensland, AU - Chiropractic services	This article provides an overview of chiropractic principles and practices, together with the results of a systematic review of peer-reviewed publications between 2000 and 2010 retrieved from MEDLINE, CINAHL, EMBASE, AMED and Cochrane Database of Systematic Reviews. This review sought to determine the benefits of chiropractic treatment and care to well-being, and to what extent chiropractic treatment and care improve quality of life.	Systematic review	This article reviewed six studies which discussed the the impact of chiropractic care on physical health and disability.	Lack of connection to occupational therapy. No clear links to occupation-centered, occupation-based or occupation-focused concepts.
Key Findings/Themes: The findings of this systematic review indicate a real need for quality research that characterizes the impacts of chiropractic on lower back pain, and particularly, research that examines impacts on health and well-being in the wider, holistic view as defined by the World Health Organization. The lack of quality studies and the inconsistency between the discovered studies precluded any overall conclusion about the impact of chiropractic intervention on well-being for patients presenting with back pain. This study suggests that future studies on the impact of treatment and management by chiropractors on the quality of life, lifestyle and health economics of patients with low back pain may have unique challenges, such as ensuring homogeneity of intervention or carefully describing the heterogeneity of chiropractic practice, ensuring a representative sample and carefully choosing accepted and previously used outcome measures.					

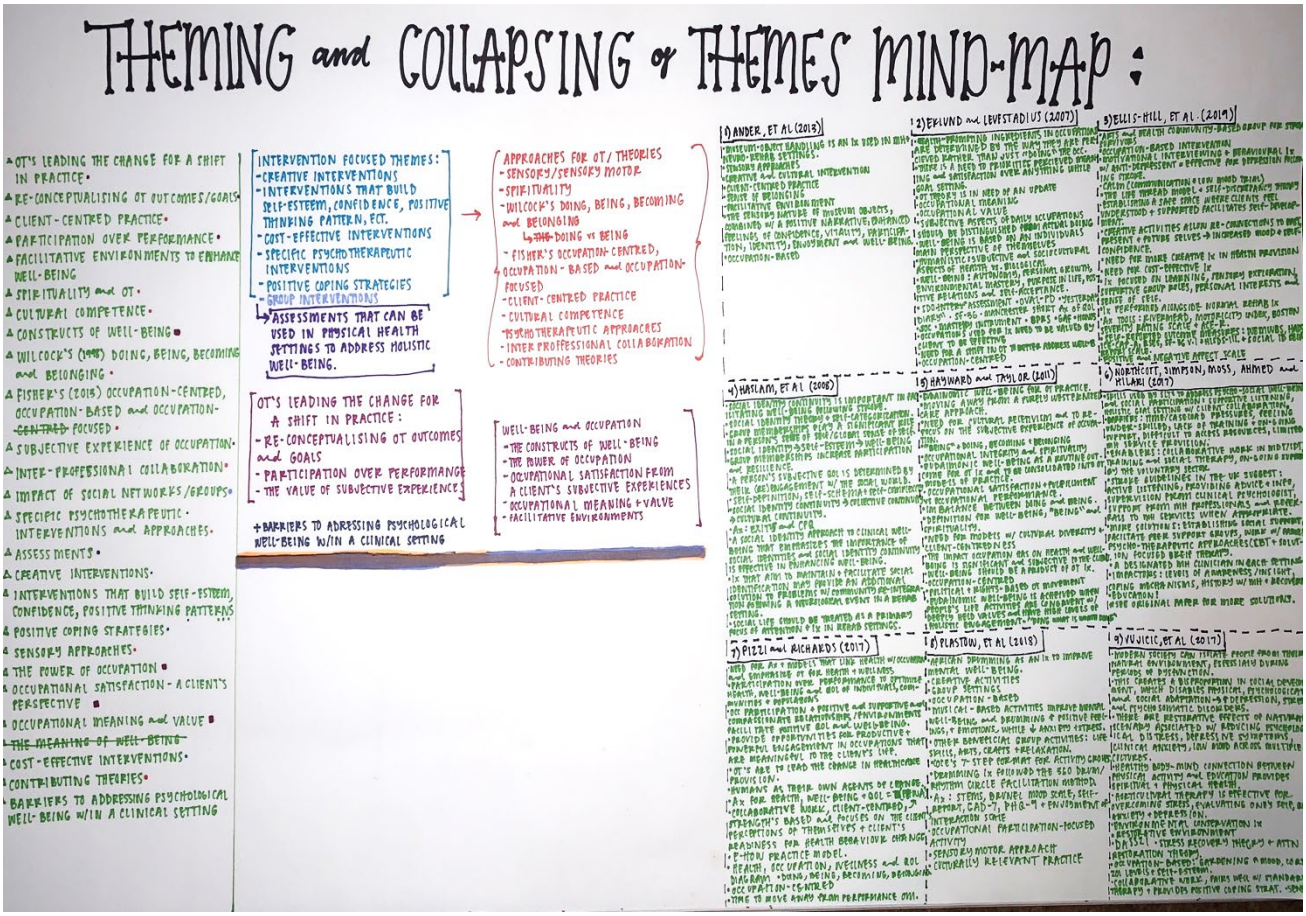
Verwer, Van Leeuwen, Bolier & Post (2016) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =5/10**	Netherlands - Community spinal cord injury	This study examined the feasibility of Psyfit in people with spinal cord injury. Psyfit is an online self-help program designed to enhance well-being in persons with depressed mood.	Pilot study. Pre-test and post-test designs with 14 participants. Measurements were taken at baseline (T1), immediately after the intervention (T2) and at 3-month follow-up (T3).	Participants within this study had sustained a spinal cord injury had finished outpatient rehabilitation, who had mild to moderate symptoms of depressed mood and who were engaged in a mental recovery process. The Psyfit intervention discussed within this study consists of six independent modules: (1) positive feelings, (2) positive relations, (3) mindfulness, (4) optimistic thinking, (5) mastering your life and (6) personal mission statement and goal setting. In each week, a specific topic is addressed, including general information, psycho-education and a practical exercise.	The intervention described involved participants actively engaging with an online self-help program. This could be considered occupation-based and/or occupation-focused intervention, depending on the individual's personal experience with the intervention and application of learned positive mental health strategies/skills.
Key Findings/Themes: The accessibility, affordability (€30 per year) and the concise nature of Psyfit make this program a potential first step in treatment of depressive symptoms before considering more intensive and costly therapy in a Stepped-Care Model for a subgroup of people with SCI.					
Lappalainen, Pakkala & Nikander (2019) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =8/10**	Finland – geriatrics.	This study examines the relative effectiveness of an internet-based acceptance and commitment therapy (ACT) intervention or a standardized institutional rehabilitation program, first, in reducing depressive symptoms, and second, in improving the well-being and quality of life of elderly family caregivers compared to a control group receiving support from voluntary family caregiver associations.	Quasi-experimental trial (protocol) comparing three groups of caregivers.	The population described within this study are elderly caregivers. The interventions described throughout this article include a guided 12-week web-based intervention, a standardized rehabilitation program within a rehabilitation center and support which was given by voluntary family caregiver organizations. Interventions were informed by the Acceptance and Commitment Therapy (ACT) psychological intervention.	No strong links found to occupation-centered, occupation-based or occupation-focused concepts.
Key Findings/Themes: This article describes a protocol that could be used to complete a RCT study. Therefore; there are no clinical "findings" produced by this research.					
Ojala, Nygard, Huhtala, Bohle & Nikkari (2019) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy"**	Finland – occupational health setting.	The aim of this study was to evaluate a cognitive behavioral intervention as an early rehabilitation strategy to improve employees' well-being, in intervention group and in control group.	The study was a nine-month trial to estimate the causal impact of the intervention on an intervention group, with a no-treatment control group that did not take part in the intervention.	Participants within this study were municipal employees aged 21-64. Participants analyzed their everyday work-related problems and found ways to understand changes at work and change-related phenomena and they learned new problem-solving skills and skills to talk with their supervisors at work about their work and develop work relationships in everyday life. Work-related problem-solving skills were practiced by analyzing the	Occupation-centered approaches discussed throughout article.

"interventions" "strategies" "skills" "techniques" =7/10				elements of one's work. Skills to talk and develop work relationships in everyday life were practiced by starting recommended conversations in the workplace with one's supervisor concerning one's work and its daily challenges.	
Key Findings/Themes: This study suggests that a cognitive behavioral intervention achieved significant improvements in several measures of mental health. The results imply that this kind of intervention is needed to give early support on mental health issues for the working-age population. Early rehabilitation allows participants to play an active role while they still have the resources to make changes in their own lives. Overall, the results of this study permit the conclusion that this kind of service does support working ability in today's municipal sector. It is important to act preventively while participants have the resources to play an active role. Peer support also has remarkable value for finding solutions in different life situations.					
Aghaie, Roshan, Mohamadkhani, Shaeeri & Gholami-Fesharaki (2018) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =5/10**	Tehran, IR – study examines articles discussing mindfulness-based interventions for the entire Iranian population.	The study aimed at performing a systematic review of studies conducted on the effects of mindfulness-based interventions on well-being, mental health, general health, and quality of life improvement through a systematic review and meta-analysis study. The main focus of this study was reviewing research conducted on Iranian samples.	Systematic review and meta-analysis	Iranian population. This review examined mindfulness-based interventions discussed within 35 articles. Specific interventions were not discussed.	As this article provided primarily quantitative data regarding the articles reviewed within this study, occupation-centered, occupation-based and occupation-focused perspectives were not identified.
Key Findings/Themes: The results showed that mindfulness-based interventions significantly influenced well-being, general health, mental health, and quality of life.					
Eklund & Leufstadius (2007) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =6/10**	Sweden – Outpatient mental health.	The main purpose of this present study was to investigate the relationship between occupational factors–representing a variety of subjective perceptions and actual doing–and self-perceived and interviewer-rated aspects of health and well-being in a sample with persistent mental illness. A further aim was to identify the occupational factors with the strongest relationships to the targeted aspects of health and well-being.	Cross-sectional study with a correlational design. The occupational factors were treated as independent variables and the health-related variables were treated as dependent variables.	Participants consisted of individuals with persistent mental illness who were selected from an outpatient mental health unit. Participants were interviewed by an occupational therapist, using the Satisfaction with Daily Occupations (SDO) interview-based instrument, the Occupational Value with pre-defined items (Oval-pd) questionairre, the Short Form Medical Outcomes Survey (SF-36), the Swedish version of the Manchester Short Assessment of Quality of Life, the Rosenberg Self-esteem Scale, the Sense of Coherence (SOC) scale, the Brief Psychiatric Rating Scale (BPRS), the Global Assessment of Functioning (GAF), and the Health of the Nation Outcomes	Occupation-focused and occupation-centered approaches were consistently discussed throughout this article.

				Scale (HoNOS). Other tools were also used, such as a 'yesterday dairy.' Data was collected over a period of six months within the outpatient unit.	
Key Findings/Themes: This study showed that the health-promoting ingredients in occupations seemed to be determined by the way occupations were perceived, rather than by the doing per se. This finding gives empirical evidence that occupational therapists should support the client in developing satisfying and valued daily occupations, since that may promote enhanced quality of life and health.					
Pizzi & Richards (2017) **"well-being" "mental health" "health" "physical rehabilitation" "rehabilitation" "occupational therapy" "interventions" "strategies" "skills" "techniques" =7/10**	USA – all occupational therapy practice	This article addresses the need for an increased presence of occupational therapy in health and wellness, emphasizing participation over performance, to optimize the health, well- being, and quality of life of individuals, communities, and populations.	Guest editorial	This article addresses the occupational therapy as a whole and is transferable to all scopes of practice. This article also discusses the use of the Pizzi Health and Wellness Assessment (PHWA) and the Environment-Health-Occupation-Well-being (E-HOW) Model.	Occupation-centered perspective is demonstrated throughout.
Key Findings/Themes: -The promotion of health, well-being, and QOL can and should be included in every client's intervention plan to firmly establish the role of occupational therapy in health care. - A focus on health, and not only on occupational performance and participation, is imperative to move the profession forward. - Having a health focus includes addressing the physical, social, mental and emotional, and cultural aspects of doing, being, becoming, and belonging, which facilitates QOL and well-being. -A paradigm shift in occupational therapy academic institutions and in practice is mandated to carry forward the vision of promoting health, well-being, and QOL. -An expansive opportunity exists for occupational therapy research focused on health, well-being, and QOL to help meet societal needs. -Having both a model and assessments linking health and occupational participation directly, practitioners can begin to substantiate Vision 2025 for occupational therapy, which states, "Occupational therapy maximizes health, well-being, and quality of life for all people, populations, and communities through effective solutions that facilitate participation in everyday living" (AOTA, 2017, p. 1)					

Appendix D: Collapsing of themes




THEMING and COLLAPSING of THEMES MIND-MAP:
OT'S LEADING THE CHANGE FOR A SHIFT IN PRACTICE
RE-CONCEPTUALISING OT OUTCOMES/GOALS
CLIENT-CENTRED PRACTICE
PARTICIPATION OVER PERFORMANCE
FACILITATIVE ENVIRONMENTS TO ENHANCE WELL-BEING
SPIRITUALITY and OT
CULTURAL COMPETENCE
CONSTRUCTS OF WELL-BEING
WILCOCK'S (1998) DOING, BEING, BECOMING and BELONGING
FISHER'S (2013) OCCUPATION-CENTRED, OCCUPATION-BASED and OCCUPATION-CENTRED FOCUSED
SUBJECTIVE EXPERIENCE OF OCCUPATION
INTER-PROFESSIONAL COLLABORATION
IMPACT OF SOCIAL NETWORKS/GROUPS
SPECIFIC PSYCHOTHERAPEUTIC INTERVENTIONS and APPROACHES.
ASSESSMENTS
CREATIVE INTERVENTIONS
INTERVENTIONS THAT BUILD SELF-ESTEEM, CONFIDENCE, POSITIVE THINKING PATTERNS
POSITIVE COPING STRATEGIES
SENSORY APPROACHES
THE POWER OF OCCUPATION
OCCUPATIONAL SATISFACTION - A CLIENT'S PERSPECTIVE
OCCUPATIONAL MEANING and VALUE
~~THE MEANING OF WELL-BEING~~
COST-EFFECTIVE INTERVENTIONS
CONTRIBUTING THEORIES
BARRIERS TO ADDRESSING PSYCHOLOGICAL WELL-BEING W/IN A CLINICAL SETTING
INTERVENTION FOCUSED THEMES:
-CREATIVE INTERVENTIONS
-INTERVENTIONS THAT BUILD SELF-ESTEEM, CONFIDENCE, POSITIVE THINKING PATTERN, ECT.
-COST-EFFECTIVE INTERVENTIONS
-SPECIFIC PSYCHOTHERAPEUTIC INTERVENTIONS
-POSITIVE COPING STRATEGIES
-GROUP INTERVENTIONS
ASSESSMENTS THAT CAN BE USED IN PHYSICAL HEALTH SETTINGS TO ADDRESS HOLISTIC WELL-BEING.
APPROACHES FOR OT/THEORIES
- SENSORY/SENSORY MOTOR
- SPIRITUALITY
- WILCOCK'S DOING, BEING, BECOMING and BELONGING
~~- DOING~~ vs BEING
- FISHER'S OCCUPATION-CENTRED, OCCUPATION-BASED and OCCUPATION-FOCUSED
- CLIENT-CENTRED PRACTICE
- CULTURAL COMPETENCE
- PSYCHOTHERAPEUTIC APPROACHES
- INTER-PROFFESSIONAL COLLABORATION
- CONTRIBUTING THEORIES
OT'S LEADING THE CHANGE FOR A SHIFT IN PRACTICE:
- RE-CONCEPTUALISING OT OUTCOMES and GOALS
- PARTICIPATION OVER PERFORMANCE
- THE VALUE OF SUBJECTIVE EXPERIENCE
WELL-BEING and OCCUPATION
- THE CONSTRUCTS OF WELL-BEING
- THE POWER OF OCCUPATION
- OCCUPATIONAL SATISFACTION FROM A CLIENT'S SUBJECTIVE EXPERIENCES
- OCCUPATIONAL MEANING + VALUE
- FACILITATIVE ENVIRONMENTS
+BARRIERS TO ADDRESSING PSYCHOLOGICAL WELL-BEING W/IN A CLINICAL SETTING
1) ANDER, ET AL (2013)
2) EKLUND and LEVSTADIUS (2007)
3) ELLIS-HILL, ET AL. (2019)
4) HARLAND, ET AL (2008)
5) HAYWARD and TAYLOR (2011)
6) NORTHCOTT, SIMPSON, MOSS, AHMED and MILAKI (2017)
7) PIZZI and RICHARDS (2017)
8) PLASTOW, ET AL (2018)
9) VUJICIC, ET AL (2017)

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