Cultivating Independence:

Developing a Guidebook to Facilitate Healthy EatingCompetencies in Adults with Mental Disorders.

Francesca Camilleri

A dissertation presented to the Faculty of Education in part fulfilment ofthe requirements for the dissertation of Master's in Teaching and Learning with Education, Home Economics (Main teaching area) with Health and Social care (Subsidiary teaching area).

June 2023

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Course Master in Teaching and Learning Home Economics with Health and Social Care.

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ABSTRACT

A population-based study by the World Health Organisation (2020) found that approximately 120,000 of Malta's population live with a mental disorder. At the same time, facilitating community living for people with a mental disorder is a priority for national policy. With this context in mind, the researcher decided to carry out a project, developing an educational tool based on perceived needs of such population group. In phase one, the researcher interviewed social workers working with adults of age between 30-60 years suffering from mental illnesses and seeking independent living. Information was collected from professional, well informed social workers on their particular service users' awareness, understanding and practices regarding safe, nutritious food, as well as their functioning skills to achieve a healthy, independent living including a balanced diet. In the second phase of the study, the researcher aimed to draft an educational guidebook/cookbook based primarily on the typical service users' needs to stimulate and facilitate healthy independent living whilst improving the psychological conditions of adults with mental illness by inspiring self-care. The transtheoretical model for behaviour change and self-efficacy theory inspired the approach used in this research.

Results from the initial exploration with social workers revealed that due to long term hospitalisation, mental condition symptoms or overly nurturing background, their service users typically lacked basic functioning skills such as food shopping and storage, knife handling and chopping, plus other food preparation skills. In order to help address such difficulties, the researcher-developed an original teaching/learning resource based primarily on education around food safety and hygiene, correct weighing and measuring, step-by-step cutting skills, preparing shopping lists and simple things to consider when grocery shopping. It also presented a weekly meal plan with basic healthy and easy recipes, tips for recipe adaptations, use of seasonal produce and storage, as well as motivational tasks for physical activity and goal setting. The resource was designed to be user-friendly, encouraging practice and holistic development for improved independent living competency.

Keywords:

educational guidebook/cookbook, independent living skills, healthy eating competence, self-care, adults with mental illness, social workers, Malta

DEDICATION

To my family and close friends, who sensitised me to mental health battles in daily life.

ACKNOWLEDGMENTS

To all the social workers who participated in the interviews and agreed to contribute to this research without hesitation.

To my supervisor, Professor Suzanne Piscopo, for her constant guidance and assistance in completing this research to the best of my potential.

To my close friend, who is a chef and advised me during the implementation of the guidebook, particularly when selecting and adapting recipes.

To my parents, who encouraged me to persevere despite all obstacles, were patient with me during this challenging period, and took on additional responsibilities to support me in continuing my studies.

To myself for having the fortitude and perseverance to keep going and having faith in my abilities, particularly for delivering positivity in life and continuing to grow, improve and chase dreams.

ACCOMPANYING MATERIAL

“The Self-Care Cookbook” (Dissertation Project).

TABLE OF CONTENTS

LIST OF ABBREVIATIONS

CVD	Cardiovascular Disease
EC	European Commission
EU	European Union
FREC	Faculty of Research Ethics Committee
FSWS	Foundation for Social Welfare Services
ILS	Independent Living Skills
MASW	Maltese Association of Social Workers
NGO	Non-Governmental Organisation
NLM	National Library of Medicine
OCD	Obsessive-Compulsive Disorder
SDG	Sustainable Development Goals
TTM	Transtheoretical Model
UREC	University Research Ethics Committee
WHO	World Health Organisation

LIST OF TABLES

LIST OF FIGURES

“Just when the caterpillar though the world was ending,

he turned into a butterfly”.

- Proverb

Chapter 1:

Introduction.

1.1. Research Rationale

The 'Health at a Glance: Europe 2020' report outlines the growing prevalence of tension, anxiety, and depression among individuals (European Commission EC, 2020). Yet aside from this upward shift in mental health issues, the COVID-19 pandemic, also known as the 'second' 'silent' pandemic, contributed to a 25% increase in the likelihood of depression and anxiety across the globe (WHO, 2022). More specifically, the 2022 ‘Health at a Glance Report’ shows that almost one in two young Europeans are prone to mental health difficulties necessitating additional measures to prevent greater frequency and severity of mental illnesses. These statistics underline the marked importance of prevention and early interventions to maintain health and wellbeing in adulthood and along the life course (EC, 2022). The World Health Organisation (WHO) also states that “The need for action on mental health is indisputable and urgent” (WHO, online, 2022); however, action without meaningful learning is futile, as these percentages will remain unchanged.

In the field of education, pedagogy and andragogy are the methods and practice of teaching for children and adults respectively. Both aim to build on the learners’ prior knowledge and encourage the growth of their abilties and skills (Shirke, 2021; El- Amin, 2021). Good pedagogy and andragogy allow for adapting to various learning styles and making adjustments that foster cultural equality. Designed and executed well, they enable learners to gain in-depth knowledge of a subject and assist them in applying this understanding to their daily lives outside the learning setting (Entz, 2020; El-Amin, 2021).

Anecdotal evidence and casual observation spurred the researcher to conduct a project-based study, fulfilling a national goal for the facilitation of independent

community living for people with mental health disorders. This was implemented through investigating professional social workers' perceptions of their service users' needs in relation to upgrading certain knowledge and skills for healthier eating and lifestyles education and considering the features for effective and andragogy and educational resources the efficacy of pedagogy. The data collected, backed by - reading of the literature and relevant theoretical frameworks and constructs allowed the researcher to assess learning requirements for people with mental health issues and create a rich educational resource based on what the service users already recognise and what they ideally acquire, and which could be used by social workers during their interventions.

This study holds the potential to significantly enhance mental health and overall quality of life for individuals living with mental health disorders. Its main objective is to provide these individuals with the knowledge and skills necessary for healthier eating and increased independence, fostering not only improved mental wellbeing but also heightened self-esteem. By offering tailored resources and information, this research addresses the existing disparities in mental health care, ensuring that individuals with mental health disorders can access support that is attuned to their unique needs. Furthermore, it empowers service users by equipping them with educational tools that boost their competence and confidence in managing their daily lives. Lastly, the project's commitment to adapting educational methods to diverse learning styles and promoting cultural inclusivity ensures that the resources are both accessible and relevant to a wide range of populations, making it a comprehensive and impactful endeavor.

1.2. Research Aims and Questions

In this dissertation the researcher sought to

- Acquire a deeper understanding of the functioning abilities of people with mental health disorders, including culinary, financial, and shopping skills, with a focus on nutrition and food safety, and to foster a sense of independence and self-care.

- To equip social workers with a resource that helps educates service users on the importance of clean, safe, and nutritious food, via practical knowledge and useful advice on responsible food shopping, storing, and cooking techniques to promote healthy independent living and self-care in adults with mental illness.

The literature review and research technique used all focused on answering the following two research questions:

Q1: Which of the foods that are recommended for adults based on the national dietary guidelines do adults with mental disorders prefer to eat and which of these recommended foods do they seldom eat?

Q2: What abilities/skills do adults with mental illness already have and which abilities/skills are perhaps lacking for the adults to be able to plan, buy, store, and cook healthy snacks/meals independently?

The potential comprehensive guidebook/cookbook was intended to provide practical advice and strategies for responsible food planning, shopping, storing, and cooking, tailored to the unique needs and challenges of adults with mental illness.

1.3. Conclusion

Recognising the growing and pressing demand for resources thar respect and address the educational needs for independent living on people with mental health disorders, and drawing upon expertise in Home Economics and pedagogy, the researcher decided to undertake a project focused on the intersection of nutrition, education, mental health, and holistic wellbeing. This report outlines the background literature reviewed, the method and results of the exploratory survey with social workers, and the design and production of the educational guidebook/cookbook. Chapter 2 will be solely dedicated to conducting literature research.

Chapter 2:

Literature Review.

2.1 Mental Health Disorders

The United Nations Convention on the Rights of People with Disability defines disability as “those who have long-term physical, mental, intellectual, or sensory impairments that, in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others.” (United Nations, pg. 36, 2006). Thus, when a long-term mental health impairment interacts with societal barriers, it becomes a psychosocial disability (Mental Health Europe, 2018).

Mental disorders are ailments that significantly impair the ability of individuals to function, think, and behave appropriately in social situations such as with families, friends, or at work. Thus, mental illnesses greatly affect daily life and can make it hard to get along with others (Njoku, 2022). The WHO, 2022 supports this argument by stating, that mental disorders are a leading cause of disability and drive overall health disease burdens due to direct and indirect psychological, physical, social, and emotional effects.

Mental disorder is an umbrella term for different ailments (Barry et al., (2019). Dattani et al. (2018) identified the prevalence of the most common mental disorders, with percentages of males and females (see Table 1).

Disorder	Percentage of the global population with the disorder	Percentages of males or females with the disorder
Anxiety	3.8%	2.8% males 4.7% females
Depression	3.4%	2.7% males 4.1% females
Bipolar Disorder	0.6%	0.55% males 0.65% females
Schizophrenia	0.3%	0.26% males 0.25% females
Eating Disorders	0.2%	0.13% males 0.29% females

(Dattani et al., (2018)

Table 1 *Most Common Mental Health Disorders Globally*

Mental disorders can be evident due to neurodevelopmental disorders from birth, such as ADHD, Down Syndrome and Autism (Morris-Rosendahl & Crocq, 2020). However, mental health issues can be developed at a later stage in life such as schizophrenia and depression (WHO & Calouste Gulbenkian Foundation, 2014).

Many factors lead to poor mental health and impairment, such as biological or genetic factors causing vulnerability to a disorder, as well as environments and adverse circumstances associated with risks like violence, abuse, bereavement, poverty, and stress, followed by psychological traumas (Compton & Shim, 2015). Moreover, gender is linked to the likelihood of having certain disorders. For example, ADHD, autism, and drug use disorders are more common in men, while, the prevalence of serious depression, anxiety, and eating disorders is higher among females (WHO and Disease Control Priorities Project, 2006).

In this literature review, the researcher focuses on chronic mental illnesses and how individuals with such disorders are challenged or facilitated to achieve an independent life in society.

2.2 The Challenges of Individuals with Mental Disorders

Mentally ill individuals face various socio-psychological obstacle, with feelings of frustration, humiliation, guilty, social isolation, stigma, discrimination, unequal treatment, and stereotyping being the most common (Shareef & Shafaat, 2021). In line with this, Knaak et al., (2017) emphasised that patients with mental illnesses reported feeling disrespected, neglected, and mistreated by health professionals. These users of mental health services report feeling excluded from decisions, getting insufficient information about the condition and treatment options, and receiving negative words rather than hope or resilience (Knaak et al., (2017).

McIntosh et al. (2011) noted functional status abnormalities and limitations in particular skill areas for people with mental health problems, as socially acceptable behaviour or reactions can be difficult for such individuals (Sane, 2018). According to the National Library of Medicine (NLM) 2011, patients with major depression, bipolar disorder, and schizophrenia found difficulty in recalling episodic memory, sequencing, and processing speed, all of which impair functioning skills. (McIntosh et al., (2011) found that people with depression had trouble staying on task, while executive functioning made people with bipolar disorder have manic episodes.

Providing long-term mental health hospital care for individuals with serious mental disorders is one of the most significant difficulties. Long-term hospital care and readmissions due to clinical patterns institutionalise service users, who become less able to think and act independently (Caldas de Almeida & Killaspy, 2016) for reasons including persistent unemployment and not practising the necessities like food preparation and bed making (S. Caruana, personal communication, November 17, 2022).

People with severe mental health problems, such as schizophrenia or bipolar disorder, have a lower chance of being employed as they might require more time off, causing a lack of productivity and hence discrimination (Fuller, 2021; Recovery Plus Support, 2022).

Only 50.6% of people with disabilities are employed, compared to 74.8% of those without disabilities (Lecerf, 2020). Consequently, 28.4% of individuals with disabilities are vulnerable to poverty or social exclusion, compared to 17.8% of those without any sort of disability (EC, 2022). Only 29.4% of people with disabilities attain a college degree, affecting their employment prospects (EC, 2022). Factors such as lack of confidence, tiredness, loss of interest, worries, or difficulty concentrating contribute to these challenges (Schulte-Körne, 2016). However, employment promotes recovery by fostering pride, self-respect, financial benefits, and aiding in coping with mental illness, while improving social functioning (Jacob, 2015).

2.3 Independent Living Skills

Independent living skills (ILS) are the basic skills person needs to live independently. These techniques assist an individual through life by practicing new abilities, minimising weaknesses, and enhancing one's potential (Nasheeda et al., (2018).

ILS encompasses many skill areas, including personal care like self-dressing, grooming, toileting and hygiene, meal preparation and nutrition; - clothing management such as laundry and sorting; - financial awareness and budgeting; - material organisation; - and household maintenance (Family Connect, 2021). Life skills also include interpersonal values like dealing with stress, managing time by planning, having confidence, being mature and having a good attitude (Prajapati, 2016).

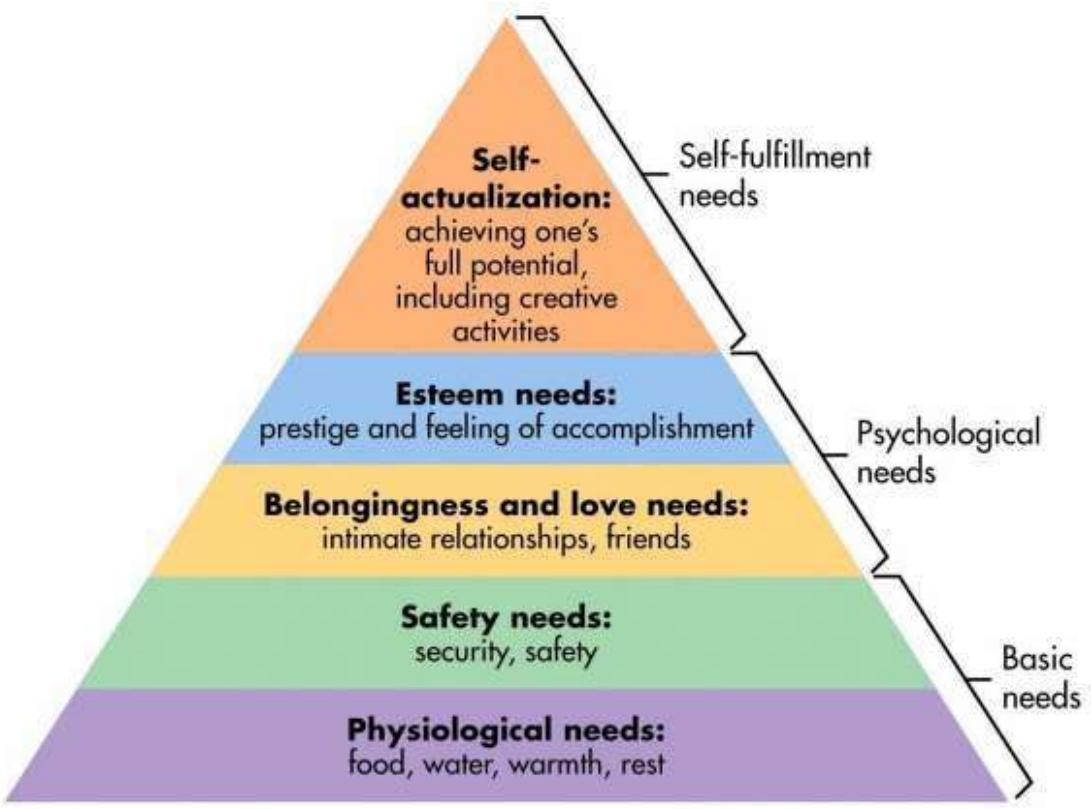
As explained in Section 2.2 mental disorders often reduce the ability to self-care and function, making such individuals dependent or requiring the assistance of relatives or welfare (Herli et al., (2016). There are many reasons why some skills needed for independent living are lost or hard to learn (see Table 2). Such obstacles may prevent the individual from practicing ILS, resulting in a loss of skills or an inability to acquire them (Abaoğlu et al., (2017). Multiple syndromes create an overlap of symptoms which makes the individual more resistant to individualised care interventions that could facilitate independent living and the ability to satisfy basic needs (Brady et al., (2000).

Depression	Poor appetite and motivation to cook, eat and drink, self-isolating and apathy (Simmons et al., 2016).
Memory Impairments *(Common in bipolar disorders, early dementia, and Alzheimer's)*	Forgetting to eat, forgetting relatives or acquaintances, and having issues handling monthly bills (National Institute on Health, 2020).
Overactivity in Mania	Eating on the go and having inadequate decision-making skills due to delirium (Purse & Gans, 2022).
Hospital Admissions	An unwelcoming environment with lack of variety of foods (cultural diets), and a lack of initiative and inclusion during activities (Mind, 2018).
Psychotic Symptoms *(Common in schizophrenia, depression, and bipolar disorders)*	Hallucinations, confusion, and negative symptoms, like social withdrawals and lack of pleasure (National Health Service, 2021).
Eating Disorders	Avoid cooking to limit food consumption, insufficient energy for everyday tasks, and repetitive inactive behaviour that makes the individual lose functioning skills (S. Caruana, personal communication, November 17, 2022).
Low Income	Not having enough money for shelter or food, housing difficulties due to inadequacies or poor living conditions, cannot afford certain costs associated with staying connected (Marbin et al., (2022).

Table 2 *Factors for the Lack of ILS*

2.3.1 Maslow's Hierarchy of Needs

Maslow's hierarchy of needs hypothesis (see Figure 1) has been applied to empirical studies in several fields, such as education and management, social and emotional wellbeing, and health-related behaviour modification (Henwood et al., (2015). This hierarchy of needs is often shown as a pyramid, with physiological needs at the bottom and safety, belonging, and esteem needs further up the pyramid (Henwood et al., (2015).



(*McLeon, 2018)*

Figure 1 *The Five Stages of Maslow's Hierarchy of Needs*

Maslow divided his theory of human growth and development into five stages. First, the individual needs human survival necessities such as food, water, shelter, clothing, warmth, sex, and rest (McLeod, 2018). This placement suggests that all other needs are less important until physical needs are met. Second, there are safety requirements, which state that one needs to feel protected and have order and stability (McLeod, 2018).

Love and belongingness needs make up the third level of human needs. People feel connected to others, accepted, and like they have a place in society when they make friends, have close relationships, and join a family or work environment (McLeod, 2018). Maslow divides esteem needs into two groups: the importance of one's own esteem and the need for a good reputation from others (McLeod, 2018). Self-respect, self-confidence, and a sense of mastery over one's skills are essential, but status and prestige in one's community continue to boost self-esteem (McLeod, 2018). Once a person realises their potential, they feel a sense of self-fulfilment at having reached the highest point of their personal development (McLeod, 2018). Self-actualisation, often depicted by Maslow as a desire "to become everything that one is capable of becoming" (Ciaravino & Ikiugu, pg. 64, 2007) parallels the overall objective of the mental health recovery paradigm, which is for individuals to "strive to reach their full potential" (Delman et al., pg.1, (2015).

There have been discussions on how material deprivation can affect one's recovery and functional potential when mental disorders are present. According to Maslow's hierarchy of needs, the model assumes that individuals cannot deal with problems-like psychiatric symptoms, until they have met their basic physiological and safety needs. Consequently**,** nutrition, housing, purpose, and community are necessary for

recovery (Jacob, 2015). As a result, community-based resources often provide treatment, supportive therapy, and facilities to meet the needs of patients with mental illnesses (Jacob, 2015).

2.3.2 **Approaches to Satisfy the Needs of Individuals with Mental Disorders**

The EU Agency for Fundamental Rights (2012) determined that effective support can help individuals with mental disorders live independently within the community by strengthening ILS. Similarly, Dohler et al., (2016) noted that, vulnerable people in America found assistance via a facilitator for recovery. Bandura's social learning theory emphasises the importance of observing, modelling and imitating others' behaviours and attitudes as a way of learning (Cherry & Susman, 2022). Hence, if certain tasks are deemed exhausting or demanding for people with mental disorders, allowing them to observe can help guide actions and influence treatment (Cherry & Susman, 2022).

Support can also come from state funded or non-governmental organisation (NGO) advocates or agents who provide services such as standardised care, occupational therapy, support groups, and life skills programmes (Tungpunkom et al., (2015).

Although Tungpunkom et al. (2015) indicated that the results following life skills programmes do not differ significantly from other support groups or standardised care interventions remain a simple, straightforward method with the potential to provide substantial advantages for individuals somewhat disabled by mental health issues. Moreover, numerous engagement methods, including creative therapy, work-based therapy for employment, and leisure activities, enable life skills programmes to address multiple components (Tungpunkom et al., (2015).

Brown and Campbell's (1983, as cited in Tungpunkom et al., (2015) life skill programme focused on grooming and personal hygiene, managing stress levels, interpersonal qualities, food consumption, budgeting, and time management skills. On the other hand, Patterson's (2003, 2006 as cited in Tungpunkom et al., (2015) life skill training concentrated on medicine intake, communication with others in society, organisation, planning, transportation, and financial management skills.

Chen's (2009) life skill training focused on self-hygiene, recreational, and therapeutic activities such as writing and music, and social skills like role-playing or group shopping, complemented by psychological training offered to programme followers. Aside from the training in Chen (2009), Zhao's (2007) life skill training also practised correcting participants' problematic behaviour and assigned appropriate chores depending on abilities (Tungpunkom et al., (2015).

The programmes that managed to improve participants' lives were those by Chen (2009) and Zhao (2007), with zero dropouts from the rehabilitation process. Success was because Chen and Zhao focused primarily on life skills in conjunction with social training and the participation was that of females (Tungpunkom et al., (2015).

However, the training was still considered insufficient to make an actual treatment effect as there was no evaluation of participants' engagement with services, satisfaction with care or financial conclusions (Tungpunkom et al., (2015). Based on a systematic review, Tungpunkom et al., (2015) advised holding an intervention of at least one year for people residing in local trial centres, with activities that prepare participants to return to everyday living, engage in employment and function accordingly.

2.3.2.1. The Local Context

Locally, Mount Carmel Hospital offers inpatient services after treatment, such as ‘Dar Sebħ Ġdid’, previously known as Halfway House, where people could respite and practice various activities, like crafts and textiles, cooking, shopping, and budgeting with their support workers to prepare them for independent living (J. Azzopardi, personal communication, October 26, 2022).

Richmond Foundation offers respite services for clients who previously reside at the psychiatric hospital as a shelter for better care with 24/7 support. A total of five shelters provide housing and encourage self-sufficiency through personal assessments and ongoing care plans. Such shelters, keep service users occupied with daily tasks, meal preparation sessions, and recreational activities, while hosting events with guest speakers to maximise skills and capitalise on service users’ assets to maintain an active social life (Richmond Foundation, 2020).

The government operates services to assist such individuals, including the Foundation for Social Welfare Services (FSWS), Paola Mental Health Clinic (Haven) and Mount Carmel Hospital (Government of Malta, 2021). The FSWS liaises with Aġenzija Appoġġ, offering a 24/7 support line on 179 to make the service easily reachable during non-working hours. This National Helpline provides assistance, information about other services, and facility referrals (FSWS, 2022).

The Comcare service at St. Luke’s Hospital primarily conducts home visits to administer medication to mentally ill individuals who may resist it. Comcare’s multidimensional team consists of psychotherapy and occupational therapy specialists, social workers, and personal caregivers who collaborate to improve the skills of the mentally ill across multiple dimensions (Government of Malta, 2021).

Furthermore, 'Dar Kenn għal Saħħtek' stands as a governmental institution specialising in the comprehensive treatment of obesity and eating disorders. It houses a proficient and diverse team comprising doctors, psychiatrists, nutritionists, dietitians, nurses, psychotherapists, and occupational therapists, each playing a crucial role at various stages of patient care. For individuals contending with obesity, the centre offers a residential program spanning eight weeks, followed by ongoing outpatient support. In contrast, for those battling eating disorders, the organisation provides an indefinite residential program, day services, and outpatient care. These services are meticulously tailored to address the underlying causes of health issues linked to dietary habits, with programs thoughtfully crafted around local eating traditions. Furthermore, they offer substantial support to individuals dealing with obesity and eating disorders and actively advocate for the promotion of a healthier lifestyle. Importantly, they remain committed to providing continued post-discharge care within the community to ensure the long-term wellbeing of their patients (*Dar Kenn Għal Saħħtek - Eating Disorders Support Malta*, 2021)

NGOs like Caritas Malta accepts social worker referrals for patients suffering from mental disorders like anorexia and depression who are unable to prepare food for themselves or feel alone, thus providing free nourishing meals that can also serve as a means of socialisation with others (S. Caruana, personal communication, November 28, 2022).

2.4 Food and Mental Health

The WHO (2022) defines health according to one's wellbeing, whereby physical, psychological, and social needs are fulfilled without diseases. In simpler terms, a person is deemed healthy when they complete all three dimensions of wellbeing (Svalastog et al. (2017). For physiological and social wellbeing, one must carry out most daily activities without undue fatigue or physical stress (Wyk, 2016) whilst connecting with others to share ideas and sustain meaningful relationships for a good sense of belonging (Ramirez-Duran, 2021). To safeguard mental health, a person must realise their own capabilities, cope well with everyday stresses, and work prolifically in a manner that supports their living and contributes to the community (Galderisi et al., (2015).

According to psychotherapist, Sarie Taylor, says, "It is impossible to separate our mind and bodies as they are intrinsically linked; they speak to each other and work in harmony" (Welsh, online, 2022).

Corell et al., (2017) support the link between physical and mental health by evidencing a premature mortality rate among diagnosed with schizophrenia, depression, or bipolar disorder due to cardiovascular disease (CVD) generally caused by biological mechanisms such as poor diet, medications, and obesity.

An increase in weight is a well-established side effect during the ongoing treatment of mental syndromes, with damage to blood vessels, blood clots, and blockages leading to heart attacks (De Hert et al., (2018). Furthermore, certain medications for serious mental illnesses are found to cause metabolic syndromes through their increased susceptibility to insulin resistance, hypoglycaemia, and type 2 diabetes.

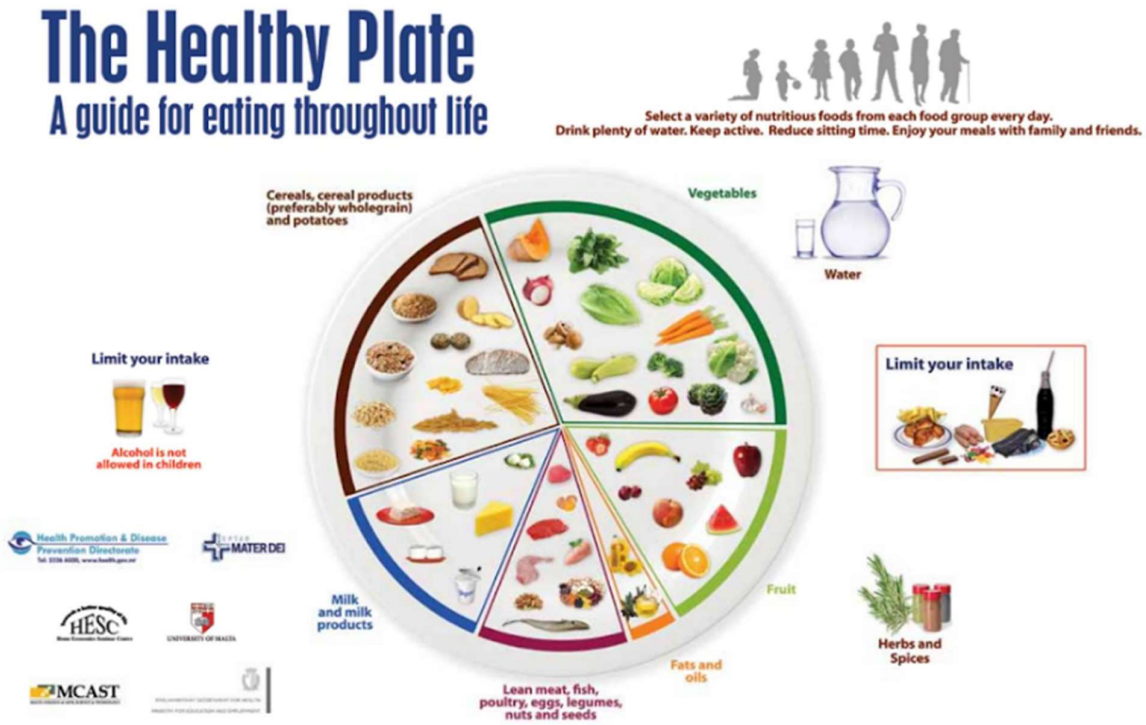
Metabolic syndrome is a combination of conditions that occur together, such as increased blood pressure, high blood sugar, excess body fat around the waist, and abnormal cholesterol or triglyceride levels, leading to heart failure (Mayo Foundation for Medical Education and Research, 2021).

People with mental illnesses often rely on comfort foods to make them feel safe, thus, turning to binge eating (Lautieri et al., (2022). Binge eating makes stress hormones like cortisol less powerful (DiMichele, 2015). In fact, eating carbohydrates or sugary foods helps our bodies produce serotonin, which makes us feel happier or less irritable (Troisi & Wright, 2017). Comfort food also confers social utility, as food is associated with socialisation, triggering social connectedness with others (Troisi & Wright, 2017). However, comfort foods high in sugar and fat can lead to other chronic physical illnesses (Smith et al., (2022).

Authentic Mediterranean-style dietary patterns reduce the risk for CVD among individuals with mental disorders as it consists of more plant-based foods, such as fruits and vegetables, whole grains, and olive oil, compared with other diets (Ventriglio et al., (2020). The preferred animal protein is fish, with consumption of small amounts of meat, eggs, and poultry (School of Public Health, 2018). Focusing on the brain, plant-based foods offer mood-boosting nutrients without the adverse side effects of meat-based diets, thus, getting nutrients without the additional saturated fats and cholesterol from red meat. For instance, plant-based foods rich in vitamin B12, magnesium, and omega-3 fatty acids reduce inflammation in the body, reducing the secretion of cortisol and stress levels (Earth911, 2022).

The Healthy Plate is an example of a Mediterranean diet locally (Health Promotion & Disease et al., (2015). The plate contains a variety of nutritious foods from six

different food groups and the recommended portion size of each group (see Figure 2 and Table 3).



(Health Promotion & Disease et al., (2015)

Figure 2 *Dietary Guidelines for Maltese Adults*

Consume Daily	Consume Weekly	Consume Occasionally

Cereals	1 serving per meal, up to 3 meals a day
Vegetables	3-5 servings per day
Fruit	2-5 servings per day
Water	1.5- 2 litres per day
Dairy Products	2 servings per day
Olive Oil	1 tablespoon
Spices, Herbs, Garlic & Onion	No standards (advised against high salt content).
Fish	2 or more servings per week 1 serving= 115g raw
Legumes	2 or more servings per week 1 serving= 70g raw/140 g cooked or canned
Potatoes	3 or fewer servings per week 1 serving = 80g potato
Olives, Nuts & Seeds	Nuts: 80- 90g per week Seeds: 60- 70g per week
Eggs	2-4 servings per week 1 serving= 1 egg
White Meat	2 servings per week (preferably lean meat) 1 serving= 100g raw
Red Meat	Less than 2 servings per week 1 serving= 90g raw
Foods/Drinks rich in Sugar & Unhealthy Fats	Occasionally
Processed Meat	Occasionally
Wine	Occasionally

(Health Promotion & Disease et al., (2015)

Table 3 *Dietary Guidelines for Maltese Adults in More Detail*

With reference to Figure 2 and Table 3, according to the local dietary guidelines, one should consume a variety of foods from each food group in moderate proportions to obtain a diversity of nutrients. Having 5g or less of sugar, 3g or less of fats, and 1.5g or less of saturated fats per day is advised. Salt is advised in levels of 0.3g or less (Health Promotion & Disease et al., (2015).

The diet also recommends selecting lean cuts of meat and fish and limiting red meat consumption to fewer than twice a week to avoid unnecessary fats. Eating low-fat milk products, drinking plenty of water, and keeping active are also recommended. Depending on a person's age, gender, height, weight, and level of physical activity, the overall amount of food people should consume varies. Still, people with chronic diseases may have different dietary needs, so they should talk to health experts (Health Promotion & Disease et al., (2015).

2.4.1 Dietary Interventions for Mental Wellbeing

Poor nutrition can affect mental health by developing or worsening mental health symptoms. High sugar and processed food consumption may cause inflammation across the body and brain, contributing to mood disorders such as anxiety and depression. Individuals with mental health issues may ignore their nutrition as a direct consequence of their illness owing to binge eating, the need for comfort foods, or withdrawals (Imam, 2021).

Lachance and Ramsey (2015) indicated that the rising incidence of mental disorders in recent years might be linked to our shift from a wide variety of whole foods to a more refined and processed diet during the same time frame.

Below (see Table 4) is list of the nutrients the human brain needs, along with reasons why one needs them and where one can get them.

Nutrient	Reason	Mediterranean Food Sources
Complex Carbohydrates	Complex carbohydrates are healthy since they take longer to digest than simple carbohydrates, promoting stable brain function. Complex carbohydrates improve the uptake of the amino acid tryptophan which is important to produce the chemical serotonin in the brain; known as a 'feel good' chemical (Sears, 2020).	Bread, legumes, rice, pasta, oats, quinoa, barley, and sweet potato.
Protein	Protein contains amino acids to help produce key neurotransmitters, chemicals that allow brain cells to communicate with each other. For example, protein gives the body the amino acid L-Tyrosine which produces dopamine in the brain, allowing one to feel pleasure, satisfaction, and motivation (Dalangin et al., (2020)	Meat, poultry, fish, eggs and dairy foods.
Fat	Fat helps in the absorption of essential vitamins to produce neurotransmitters such ss serotonin and play a role in the structuring of the brain's cell membranes (Chianese et al., (2018).	Olive, avocado, salmon, sunflower, corn, canola, corn oil, nuts, and seeds.
Omega 3 fatty acids	Omega 3 fatty acids build up in the brain cell membranes keeping toxic substances out of brain cells and acting as receptors and channels facilitating communication between neurons for better functioning and convenience for learning and memory (DiNicolantonio & O'Keefe, 2020)	Salmon, tuna, herrings, nuts, and seeds.

Table 4a *Important Nutrients for a Healthy Brain Function*

Nutrient	Reason	Mediterranean Food Sources
Antioxidant vitamins	Antioxidant vitamins such as Vitamin C, and E protect against free radicals that damage some brain cells and cause mutations (Christiansen, 2018).	**Vitamin C** Orange, kiwi, lemon, grapefruit, bell pepper and tomato. **Vitamin E** Pumpkin, peanuts, hazelnuts, almonds, sunflower seeds, and mango.
Folate	Folic acid aids in the production of DNA and RNA and deficiency in such nutrients influences the functioning of the brain. Folic acid deficiency lowers brain S-adenosylmethionine and serotonin. These chemicals have antidepressant properties that hinder bad moods (Ullah et al., (2022).	Green leafy vegetables (spinach, broccoli, avocado), oranges, bananas, beans, fortified cereals.

Table 4b *Important Nutrients for a Healthy Brain Function*

Research is still being carried out on probiotics, which are living microorganisms that offer several health advantages when consumed, particularly for the brain (The President and Harvard College, 2019). Mohammadi et al. (2015) found that using a probiotic pill for six weeks improves the mental health of petrochemical workers suffering from anxiety and depressing caused by ergonomics and workplace stress.

This finding is supported by Akbari et al.'s (2016) study investigating the effects of probiotics on Alzheimer's disease patients with severe cognitive impairments and metabolic abnormalities. Cognitive impairment scores improved when a 12-week probiotic pill was used.

The nutritionist Pedrick noted that the stomach's overabundant harmful microbes secrete Lipopolysaccharide (LPS) proteins which drive up inflammation and are related to the development of Parkinson's disease and dementia (Amara & Shibl, 2013). They also influence the amygdala in the brain, which is our fear centre, enhancing feelings of anxiety and increasing our likelihood of developing mood disorders like depression (Swart, 2019). Therefore, consuming food sources high in probiotics, such as yoghurt, pickles, and olives, decreases the likelihood of microbes in the stomach driving up disturbances (Swart, 2019). Mental illnesses are now treated through antidepressant medications, however, Wang and Si (2013) support using probiotics for treating anxiety and depressive disorders. Common antidepressants influence the quality of stomach bacteria by destroying the gastrointestinal tract's bacterial cultures.

The Mediterranean-DASH Intervention for Neurodegenerative Delay diet focuses predominantly on mental health issues associated with ageing, such as Alzheimer's disease. Its recommendations focus on plant-based diets with minimal amounts of

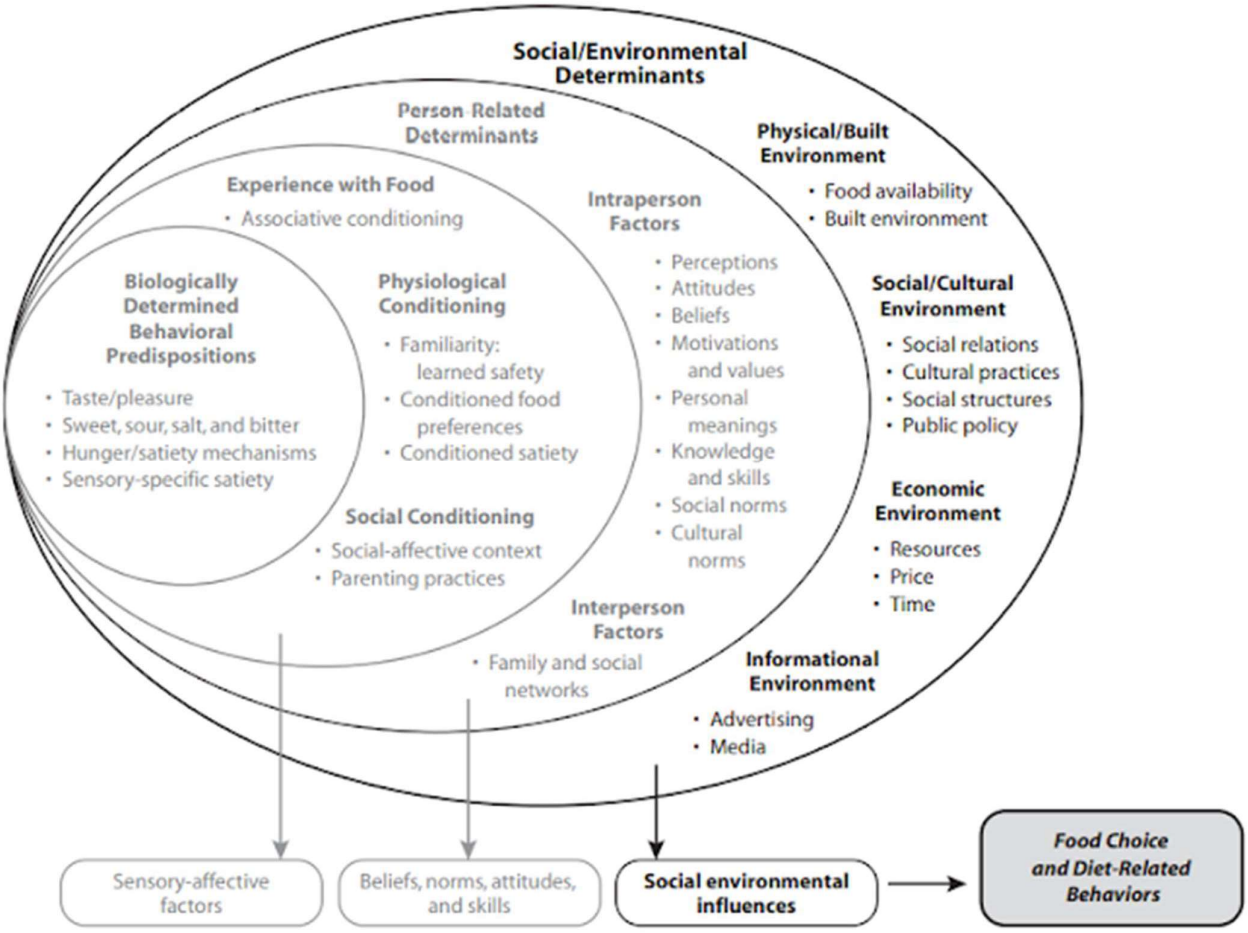
processed or saturated fatty acids. This diet recommends consuming at least three servings of whole grains daily, along with the same number of fruits and vegetables. With this diet, it is suggested that fish, poultry, or legumes accompanied by olive oil be consumed at least one to two times per week and that daily treats of almonds or berries are to be ingested. This diet is rich in nutrients like folate, vitamin E and omega 3 fatty acids, all of which function as brain booster (see Figure 3) (Sreenivas & Nazario, 2021).

2.4.2 Cultural Considerations in Nutrition

The Mental Health Foundation and the Department of Health and Public Health of England shared a set of core principles to provide the highest quality treatment for those with mental disorders (Skillsforcare, 2014). The third principle indicates that one should foster dignity and respect for beneficiaries by appreciating the individual's knowledge and experiences (Skillsforcare, 2014). Notably, in *'Implementing Mental Health Promotion'* by Barry et al. (2019), dignity is highly valued, since, without a positive sense of emotional and spiritual wellbeing that respects the importance of culture, equity, and social justice there could not be good mental health due to multidimensional constructs.

Hence, it is necessary to comprehend cultural variations to deliver the best treatment possible to all consumers, regardless of race, religion, socioeconomic status, or disability (IHSS Training Academy, 2013). In this way, treatment is adaptable and individualised depending on the individual's preferences (Skillsforcare, 2014). Figure 4 better supports this argument where sensory affective factors, beliefs, norms, attitudes, and skills with socio-environmental influences all affect food choices and diet-related behaviours (Contento, 2011). Therefore, promoting local traditional foods

to accommodate and respect the Maltese citizens' food trends and dignity is essential.



(Contento, 2011)

Figure 3 *Exploring Factors Influencing Food Choice and Dietary Change*

Some traditional foods and dishes may contain high amounts of salt, sugar, and unhealthy fats, which can contribute to chronic diseases like diabetes, heart disease, and obesity. Therefore, it may be necessary to modify traditional recipes to improve the nutritional quality of the dish. Traditional Maltese recipes include cheesecakes, braġjoli, timpana and imqaret.

That said, multiculturalism in a local Maltese population because of social changes cannot be denied (Zammit Marmara, 2016). According to Encyclopaedia Britannica (2022), the ethnic makeup of Malta consists of Maltese, British, Italians, Muslims, Palestinians, Greeks, and Sindhis. Traditional savoury dishes from such cultures include shepherd's pie, chicken and mushroom pie, kebabs, rabbit stew, fresh fish, and curry dishes. Such servings with the necessary recipe adaptations can serve as a nutritious meal in line with the dietary interventions for brain health highlighted in Section 2.2.3.

2.5. Policies and Strategies on Mental Health

The WHO (2018) recognised the real challenges of mental disorders, being a leading cause of disability and overall disease burden (see Sections 2.1 and 2.2.1) making mental health a top priority like physical health. Moreover, since the brain drives the economy, it would be wrong not to invest in such an asset (Cachia, 2016; Ministry for Health, 2019).

In 2017, several member states took the necessary steps to improve or update their national legislation or policies related to mental health. These steps were taken to help reach the Sustainable Development Goal (SDG) Target 3.4. “by 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and wellbeing” (United Nations, pg. 20, 2016).

Slovenia enacted its first Mental Health policy document with the intention of enhancing mental health promotion, prevention, treatment, and rehabilitation through campaigns, new services, and educational initiatives. Focusing on increasing mental health literacy whilst nurturing a wide range of service can raise local awareness of the fundamental challenges of mental illnesses and eliminate the stigma surrounding them and ensure that individuals and families in need have access to high-quality care (Mental Health Europe, 2019).

Slovenia also encourages implementing actions toward healthy living, focusing on physical activity, nutrition, eating habits, social interactions, and maintaining capabilities and independence. It also seeks to strengthen individuals’ state of mind by emphasising emotional and problem-solving skills and stress resistance. These factors educate and raise awareness of healthy lifestyles in conjunction with mental

health, especially as mental health is becoming equally important as physical health (Zakotnik et al., (2020).

The country supports the providing of appropriate social and family benefits to beat inequalities, in addition to, initiatives taken to assist excluded individuals with mental disorders. For example, securing guidelines for psychological first aid for workers, promoting employment and increased access to work for people with fewer options due to chronic issues, and providing guidelines for employers to use with employees during their reintroduction to work after a lengthy absence due to mental illness (Zakotnik et al., (2020).

A mental health policy for 2020-2030 was also set up in Malta to create more awareness of mental health and wellbeing, teaching people how to spot early signs of mental disorders, and promote lifelong learning, such as ensuring everyone has basic skills. Electronic health records, electronic prescriptions, telepsychiatry, and digital biomarkers are to be enforced to facilitate services and appropriate adoption by service users. In this manner, constant checks on personal health, and screening of early signs of diagnosis for cancer, infections, and health care in general for people under medical and mental treatment will reduce the likelihood of premature mortality (Ministry for Health, 2019).

Such local reform also intends to focus on assistive living initiatives through innovative resources to enable individuals to transition from long-term hospital care to community-based care. This strategy also aspires to engage with community organisations, such as local councils, to use of its facility for events that may improve the rehabilitation process (Ministry for Health, 2019).

The EC also worked on a set of strategies for the rights of persons with disabilities to fully assist people with a diversity of disabilities participate in society. Although society has improved, many persons with psychosocial disabilities remain segregated from community life and do not have control over their lives, especially those in institutions. The EC is pushing forward the idea of digital transformation. Investing in digital skills will eliminate obstacles and assure accessibility by using artificial intelligence and robots to build on-site. One example is a system that turns off all appliances and cooktops while the resident is away from home to maximise safety, hence encouraging independent living by reducing dependency on assisted living (European Union, 2021).

2.5.1. Current Local Legislation on Mental Health

The Mental Health Atlas of 2020 indicates that today 57% of WHO member states have stand-alone mental health legislation (Public Health Update, 2022). In Malta, the Mental Health Act safeguards the rights of people with mental illnesses. This law entitles people with mental ailments to the right to dignity and respect despite the severity of their conditions (Government of Malta, 2012). Patients are urged to actively engage in their treatment and have a right to engage in the development and implementation of their own care plan. Hence, people with mental health have the right to receive high-quality care, and aftercare, adequate information about their disorder and to have carer of their choice when possible. All information is kept confidential unless ordered by the court or in the best interest of the health and safety of the person (Government of Malta, 2012).

Admission to mental health institutions on an involuntary basis can only happen when a psychiatrist certifies that there is a severe mental disorder, at risk of physical harm, or harm to others, or when the condition is likely to get much worse, or when treatment is not accessible (Cachia et al., (2020). Feedback from mental health service users is encouraged to ensure patients receive accessible and quality services most efficiently and effectively (Cachia et al., (2020).

2.5.2 Foreign and Local Campaigns on Independent Living and Food and Mind Connection

Despite the enforcement of laws and public understanding of mental health, stigma, and discrimination towards those struggling with mental health difficulties are still unacceptable. In 2022, the EC published that 52% of people with any disability still feel discriminated. It recommended that local, regional, and national campaigns increase awareness, inform, and educate to end unnecessary misconceptions.

In 2013, the EC worked on the MooDFOOD project publishing a leaflet and booklet about healthy eating to support mental health and prevent depression (EC, 2013). Moderate, balanced eating of vegetables, fruits, fish, wholegrains, healthy oils, legumes, nuts, eggs, and dairy products all promote various nutrients that help maintain good brain function (EC, 2013).

A more recent campaign like MooDFOOD project happens annually by the European Brain Council. It organises Brain Awareness Week to increase public understanding of brain illnesses (European Brain Council, 2019). In 2019, this week consisted of activities with guest speakers addressing the links between food intake, everyday function, and food's impact on mood. This serves as a kind of prevention to save money on treatments and improve the population's wellbeing allowing individuals to employ lifestyle variables to enhance brain health and cultivate strong minds (European Brain Council, 2019).

On the 10th of October each year, Malta celebrates World Mental Health Day. In 2020, the theme was 'Move for mental health: Let's Invest' (WHO, 2020). Previously, it had made significant progress in raising awareness of the effect of mental health issues on individual health and wellbeing. There has also been a shift toward

personalised treatment, where; more patients are being transferred from hospitals to community hostels and independent living arrangements, and support staff training efforts have been implemented. The 2020 campaign was committed to advocating for further investment in mental health in Malta, with an emphasis on giving assistance to frontline workers, improving communication with patients between service providers and families, and disseminating information and guidance on mental health to reduce public fear and anxiety (WHO, 2020).

2.6 Andragogy

Andragogy training may incorporate various methods to accommodate adult learners' learning styles and requirements. These techniques may include presentations, case studies, demonstrations, group discussions, self-reflection, and teaching and learning materials such as brochures, videos, and online resources. Andragogy aims to provide learners with a comprehensive learning experience that considers their individual origins, experiences, and learning objectives. Trainers can create a more dynamic and interactive learning environment by employing various pedagogical techniques and instructional materials.

Given that this research includes creating and implementing an educational resource for professionals dealing with adults with mental illness, a short overview of andragogy and related concepts for effective learning was necessary. Andragogy has several basic features such as self-directed, experience-based, problem-centred learning and relevance. Here learners already have some prior knowledge of the subject and take responsibility for their own learning. Learning is also designed to be applicable to the learner's real-life experiences.

Even though some individuals with persistent mental diseases may lack motivation for self-directed learning, interventions need to use strategies to inspire them utilise the developed material (Bouchrika, 2022). Another adopted andragogical principle is that the guidebook is problem-centred rather than content-centred (Culatta, 2018). This implies that the researcher provided material they are not yet comfortable with, but which will be beneficial (Culatta, 2018). Instructions catering for a range of backgrounds are given along with basic guidance for learners to discover for themselves without depending on others. However, guidance is still to be provided by their social workers, key workers, relatives, or friends within their communities (Bouchrika, 2022).

2.6.1 Motivation

In the motivational process, the educational goal is to develop awareness, encourage active thought, support the audience in comprehending and overcoming any ambivalence, stimulate decision-making, and enable the formulation of intentions to act (Contento, 2011).

There are different classifications of motivation. Due to mental health ailments and controlled motivation, intrinsic motivation may be inhibited, and bad pressures or loneliness do not help with motivation. Hence, a lack of motivation may be more evident due to no intentions to engage in a particular activity, or not feeling competent to engage in a meaningful activity (Contento, 2011).

With reference to Section 2.3.1, Maslow’s hierarchy of needs is depicted as having a role in motivating behaviour, particularly, the motivation to fulfil basic needs before moving on to more advanced needs. This motivation helps reach one’s potential and

capabilities; yet, before self-actualising, one must fulfil the basic ‘deficiency needs’ (McLeod, 2022).

Contento (2011) identified a list of potential mediators to motivation that should be considered in any strategy to increase motivation for any given behaviour. Concern over the issue or problem, perceived dangers, anticipated advantages and outcomes, values, self-efficacy, and social influence are a few of such mediators. The theory of planned behaviour, social cognitive theory, transtheoretical model (TTM), health behaviour model, and self-determination theory are just a few health behaviour theories that heavily rely on self-efficacy (Contento, 2011).

2.6.2 Self-Efficacy

Self-efficacy is the belief that we can effectively execute the desired behaviour or overcome obstacles to participating in behaviour. Self-efficacy is the most powerful factor in action and behaviour change, comprising the skills and confidence to apply abilities successfully and consistently (Lopez-Garrido, 2020). As self-efficacy and skills do not lean the same thing, it is crucial to distinguish between them. According to Contento (2011), self-efficacy involves both skills and individuals’ confidence to consistently apply their skills even in the face of obstructions or limitations (p. 274); as a result, having high skill levels (such as behavioural, household management, time management, shopping, and physical skills) may help boost self-efficacy. Therefore, people with mental illnesses can be anyone with skills, unskilled, homemakers, creating a distinction in confidence and self-efficacy to do things (Contento, 2011).

In the context of community education interventions and behaviour change, these insights on self-efficacy and its impact on people's behaviours are particularly

beneficial. Self-efficacy is particularly crucial in the onset, modification, and maintenance of complex behaviours (Contento, 2011).

Table 5 outlines theory-based strategies and activities for building mastery and self-efficacy.

Theory-Based Strategies for Improving Self-Efficacy	**Practical Educational Activities, Learning Experiences, Content or Message**
Model social behaviour in which the skills are demonstrated	Give clear instructions to reach intended actions and good use of graphics
Provide individuals with guided practice to help them grasp behavioural skills	Give direct experiences, giving guidance and feedback
Provide convincing arguments to help individuals overcome uncertainties	Give continuous feedback emphasising the achievements and difficulties that were overcome.

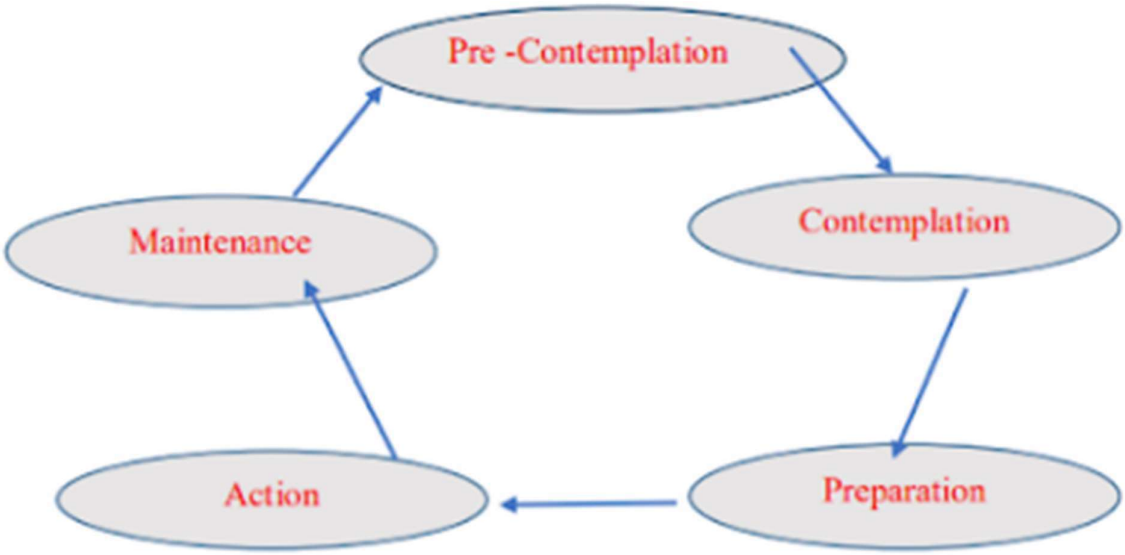
(Contento, 2011)

Table 5 *Bridging the Gap: Connecting Research, Theory, and Practice in Nutrition Education*

Hence, as outlines in Table 5, it is necessary to enhance the desire for behaviour modification for the mentally ill to provide clear instructions, give continuous feedback, show guidance with necessary social support networks, and provide convincing arguments.

2.7. Transtheoretical Model for Behaviour Change

To aid motivational problems, some clinicians base their education on Prochaska and Diclemente's TTM for behaviour change (Prochaska & Diclemente, 1997). In the TTM, humans endure five stages of change, as presented in Figure 4.



International Journal of Pharmaceutical Research, 13 (2) (Siddharthan et al., (2021, pg. 344)

Figure 4 *The Five Stages of TTM for Behaviour Change*

Precontemplation is the first stage of change, during which individuals have no plans to act in the future. According to Prochaska et al. 1992, “the main trait of someone in the precontemplation stage is they show resistance to recognizing or modifying a problem behavior” (pg. 183).

The second stage of change is the contemplation stage, in which individuals are open to making changes. In this phase, individuals weigh the benefits and drawbacks of making a change against those of keeping their current behaviour. Chronic contemplation or behavioural procrastination is the state of being stuck in this phase. During this stage, the individual still engages in reckless behaviour, but knows it is wrong (Siddharthan et al., (2021).

The third stage is preparation, which a person enters when they expect to change their behaviour the following month. A person in this stage has tried to change their behaviour for a year without success. At this stage, a person may not know how to change and may doubt their ability. A plan of action is established for eradicating or reducing the problem behaviour, and the individual is given alternative potential solutions (Siddharthan et al., (2021).

Individuals will advance to the subsequent level when they select a plan of action that they believe is effective and are confident in their ability to carry it out.

In the action stage, individuals have attempted to change their behaviours within the past six months. The action phase needs a major investment of time and energy. According to Prochaska et al., “the main ways of identifying that someone is in the action stage is through their significant efforts made to change and through modifying the problem behaviour to acceptable criterion levels” (pg. 199).

The ultimate stage is reached when a person improves, is satisfied, and receives positive social and performance feedback (Siddharthan et al., (2021).

In the fifth stage of TTM, maintenance, people try to prevent relapse and secure their gains from the action stage. Maintenance is a continuation of change, not an absence of it. People in this stage are less tempted to relapse and more convinced they can continue changing.

When applied to adult training sessions, the TTM can help trainers understand where learners are in the behaviour change process and tailor their training approach accordingly. Learning materials can be designed to address learners' specific needs and challenges at different stages of their behaviour change process. For example, materials for learners in the precontemplation stage may focus on raising awareness and providing motivation, while materials for learners in the preparation or action stages may focus on specific skills and strategies for behaviour change, as explored in the guidebook in chapter 5.

2.8 Conclusion

This chapter addressed the hurdles to independent living faced by persons with mental illness and strategies for overcoming these obstacles. Keeping in mind the dignity and culture of the service users, the researcher described the relationship between mental and physical health and dietary needs and treatments for brain function. A particular emphasis on the existing legislation and plans was explored to align Malta's needs in relation to mental health. A link was established between interventions and education to ensure that plans followed the appropriate educational level suggested by the research, thereby increasing the effectiveness of planning.

This literature review informed the researcher of the need for innovative resources to facilitate transitions to independent living and sustain effective self-care, particularly in a local context. In the next chapters, the researcher elaborates on the concept of an educational learning tool that emphasises ILS and encourages behaviour modification for healthy food consumption for professionals working closely with their service users seeking independence.

Chapter 3:

Methodology

for

Baseline Investigation.

3.0. Introduction

This chapter describes the research strategy used to accomplish the study's main objectives the philosophical foundation of which is presented in considerable detail. The research design and processes are presented, followed by a synopsis of the techniques and procedures used to collect the required data to inform the development of educational resources.

3.1. Framework of the Research

The paradigmatic worldview, theoretical lens, methodological approach, and data-gathering tools are the four layers on which the research is built (Creswell & Plano Clark, 2017). Consequently, the researcher aim is to comprehend how others perceive the world by studying how individuals generate and deconstruct meaning in their daily interactions. Instead of beginning with a theory or meaning pattern, investigators develop or infer them through argument, therefore, respecting individuals' unique perceptions of their experiences and conditions.

3.1.1. Paradigm Worldview

Worldviews or paradigms are ‘beliefs’ that support the researcher's use of various study methodologies. For this study, the researcher focused on a constructivist paradigm and critical approach (Creswell & Plano Clark, 2017).

3.1.1.1 Constructivist Research Paradigm

From a constructivist philosophical stance, the study proposes a naturalistic investigation. Social constructivists believe that individuals desire to understand the society in which they live and work. According to this theory, through someone's daily encounters, humans actively create and alter meaning. This is

frequently called "the social construction of reality." (Creswell & Creswell, pg. 13, 2018). Social constructivism emphasises the value of an individual's unique experiences with things or items. As these meanings are so diverse and numerous, the researcher chose to focus on the intricacy of varying perspectives rather than attempting to classify or organise them (Creswell & Creswell, 2018).

The researcher's objective is to use the participants' perceptions of the investigated scenario. Since paying close attention to what individuals say and do daily was preferred, open-ended inquiries were most suitable. Social constructivist researchers know that participants' experiences influence their perceptions, which are moulded by their own culture and history and those of others. Ideas are formed through social interactions and historical and cultural norms influencing individuals' lives.

This paradigm was adopted in this project-based dissertation as it focuses on how knowledge is constructed and how learning occurs in a social context. Additionally, constructivism helps review multiple perspectives, thus helping to promote critical thinking and challenge assumptions, leading to more innovative and effective results.

3.1.1.2 Critical Research Paradigm

The critical philosophical perspective was used throughout the investigation. Human freedom is the objective of the critical worldview, which seeks to liberate individuals from oppressive environments. Traditional thought examines and supports the existing system, while critical theory challenges the present status and strives to create a just and democratic society. The interrelationships between the social institutions making up a social system – class, education, the economy, and other institutions — and the question of power dynamics in society are of particular significance (Creswell & Creswell, 2018).

Horkheimer and Bohman (2005) offer three requirements for a valid critical theory. The current social reality must be described in terms of its flaws, the necessary steps to improve it must be defined, and clear criteria for both criticism and reform must be provided. Instead of merely recognising and explaining the social mechanisms that lead oppressive and powerful groups to control society's suppressed and oppressed sectors, critical theory strives for a social structure based on equality for all members. Thus, in this qualitative study, the framework provided by Horkheimer and Bohman can be utilised to understand the flaws in society when it comes to mental health stigma or oppression and explore potential steps for improvements.

Critical theorists have utilised several strategies to reach emerging objectives. Critical theory is adaptable to any methodology or strategy that could aid in proposing modifications to an unbalanced social system. Hussain et al., (2013) state that researchers engaging in critical thinking may employ mixed, qualitative, or quantitative methodologies; however, qualitative research designs are increasingly prevalent in critical research.

The researcher applied the critical paradigm to this project-based dissertation by taking a critical approach, challenging the interviewees' questions and assumptions, and promoting dialogue and debate. The researcher also engaged in critical self-reflection, examining any personal biases as their own positionality and social location that could have influenced the approach to the project.

3.1.2 Theoretical Lens

Researchers' theoretical perspectives influences their study, research questions and data collection. For this study, the researcher adopted a phenomenological theoretical framework developed by Husserl, Heidegger, Merleau-Ponty, and Schutz. This theoretical lens was implemented to identify social worker's experiences when interacting with their mentally ill service users as they understand their social reality in different contexts (Creswell & Creswell, 2018).

In addition, the researcher employed the ethnomethodology of Harold Garfinkel (1967) to investigate the specific strategies people employ to negotiate meanings in their interactions with others and, consequently, how they make sense of their lives. The ethnomethodology lens shapes the micro-understanding of individuals' everyday social situations (Creswell & Creswell, 2018). Additionally, the researcher applied this lens to investigate social workers' philosophical ideas to assist them in shaping the services offered to the mentally ill to increase the support provided. Furthermore, the ethnomethodology lens aided the researcher in determining the level of knowledge the social workers had regarding mental illnesses, ILS, and healthy food behaviours. Through this, gaps were identified and acknowledged to better aid the mentally ill in a better everyday lifestyle.

3.1.3. Research Design

This section describes the research design to be adopted in this investigation, based on the research paradigms outlined in the preceding section. Figure 5 is a graphic representation of the entire design.

Study Aims

To become more knowledgeable on the functioning abilities of the mentally ill, including culinary, financial, and retail skills, with a greater emphasis on nutrition, to nurture a sense of independence and self-care.

To raise awareness on the importance of clean, safe, and nutrient-dense food and to disseminate knowledge and useful advice on responsible food shopping, storing, and cooking techniques to facilitate healthy independent living and encourage self-care in adults with mental illness.

Research Questions

Which of the foods that are recommended for adults based on the national dietary guidelines do adults with mental disorders prefer to eat and which of these recommended foods do they seldom eat?

What abilities/skills do adults with mental illness already have and which abilities/skills are perhaps lacking in order for the adults to be able to buy, store and cook healthy snacks/meals independently?

Literature Review

The challenges and needs of persons with mental diseases, with an emphasis on their daily living skills, food in connection to mental health, and cultural issues in nutrition, were the subject of secondary study. Local laws and strategies as a way ahead were examined to provide a practical handbook with trustworthy suggestions.

Data collection

Qualitative Methodology

Participants/Target Audience

Warranted social workers with over three years of working experience with 30- to 60-year-old mentally ill service users.

Baseline study

Phase 1

Objective:

To collect data about service users' eating habits, food separation competencies and challenges, food-related attitudes, knowledge, and skills

To obtain guidance for developing recommended features in the learning resource.

Methodology: Interviews

Sample: 3-4 social workers

Research tools:

Conversation, open-ended, semi-structured, purposeful and convenience sampling, probes, in-person/remotely

Thematic Analysis

Phase 2

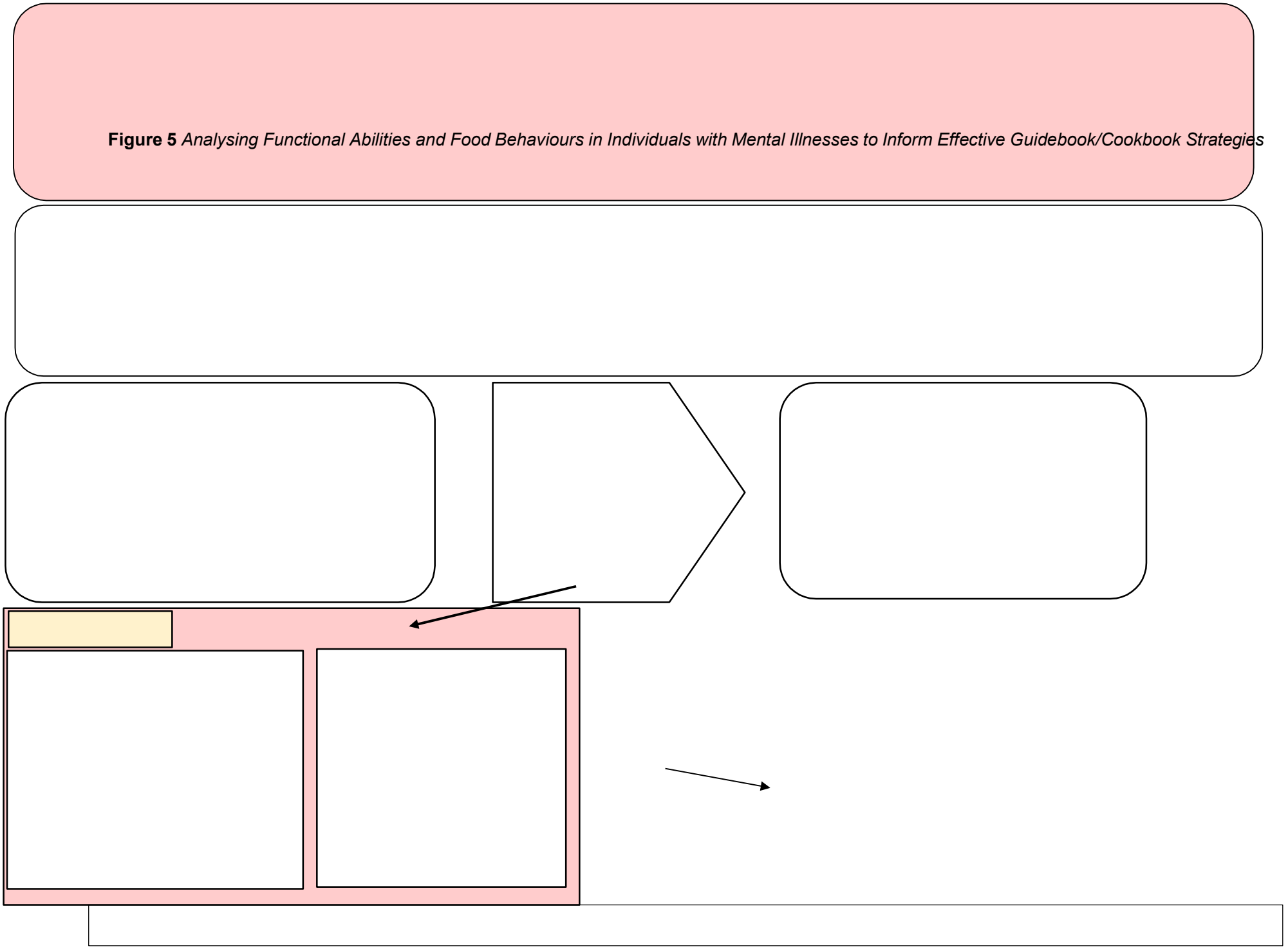
Development of a guidebook/cookbook to facilitate healthy eating competencies of adults with mental disorders.

Objectives:

Design an educational material based on the local needs of people with mental illnesses to facilitate the transition towards independent living.

Change attitudes and behaviours towards food consumption and self-care in general.

Figure 5 *Analysing Functional Abilities and Food Behaviours in Individuals with Mental Illnesses to Inform Effective Guidebook/Cookbook Strategies*



3.1.4. Methodological Approach

A researcher should select methodological approaches that best serve the study's objectives and address the research questions. As the researcher's perspective influences method selection and research objectives and questions, phenomenological and ethnomethodological theoretical lenses are compatible with certain qualitative procedures most frequently employed in health research. Qualitative research involves gathering and analysis of non-numerical data to comprehend concepts, opinions, or experiences. It can be used to explore a subject in greater depth or develop fresh research ideas (Creswell & Creswell, 2018).

3.1.5. Tools for Data Collection

Qualitative research allowed the researcher to better understand the experiences of social workers working with mentally ill patients. It uncovered how decisions were made and provided a comprehensive understanding of how interventions might affect care.

The researcher collected data through four interviews with social workers (See Appendix 1 for interview questions). The researcher chose a semi-structured format for in-depth, open-ended interviews held in a convenient place or format on an individual basis. To prepare for data collection, the researcher created interview guides elaborating on various aspects related to the research questions presented in Section 1.2.

To demonstrate active listening and acquire richer data during interviews, probes were utilised, including, "please elaborate," or nonverbal signals like a nod to indicate comprehension. The interviews were held face-to-face or via Zoom; in a formal nature to satisfy professionals (Creswell & Creswell, 2018).

Purposeful sampling is a method usually employed in qualitative methodology. This type of sampling was adopted in this research by recruiting participants that could provide detailed information about the topic under investigation; hence, recruiting social workers working with mentally ill patients (Palinkas et al., (2015). Convenience sampling was also used to identify participants based on their accessibility for this study (Creswell & Creswell, 2018).

3.2 Phase 1: Baseline Study- Interviews

3.2.1 Purpose of the Baseline

Typically, a baseline analysis is undertaken before implementing a project to identify any areas requiring special consideration during the project's development. Frequently, baselines produce information regarding demographic group's awareness, knowledge, attitude, and habits. In this case, the baseline investigation might indicate necessary interventions and how content might be implemented. It also sets realistic goals, maintains accountability, and informs and motivates stakeholders to pay attention to issues, and shapes expectations and communication strategies that might help the researcher determine the project's impact (Geneva Centre for Security Sector Governance, 2020).

3.2.2 Justification

The literature review indicates that mental health is a complex and broad topic that affects people differently. Therefore, creating a compelling project in a local setting requires the researcher to know their target audience's current situation. Unfortunately, there is little information on how mental disorders in a local setting impact the independent living abilities of the person in everyday modern living.

Hence, baseline research through interviews with social workers expected to help investigate most mentally ill attitudes, behaviours, knowledge, and functioning skills. Furthermore, it investigates the type of information to include in the guidebook to create an effective tailored learning tool and behaviour change based on the minority-majority needs.

Australian Agency for International Development (2003) indicates that baselines can take the form of surveys, research, interviews, or other methods to collect data about the researcher's target participants. The present baseline study consisted of interviews enabling the researcher to uncover the service users' profiles, client eating habits, food separation, competencies, and challenges. Moreover, it also revealed food-related attitudes of the mentally ill, knowledge and skills, the potential for learning, identification of a set of foods they would be willing to start producing, and the way to present the data in a manner that promotes effective learning and understanding.

3.2.3 Objectives

As indicated in 'Qualitative Research Practice' (Ritchie & Lewis, 2003), to elicit the desired information, a set of objectives for the interview guide were needed to probe further (See Table 6). The below objectives guided the researcher in developing the interview into four sections (Cohen et al., (2007).

Main Objective
Identify the existing capacities of mentally ill individuals, investigate their behaviours in connection to daily life, and determining the conditions they must accomplish to design a guidebook/cookbook based on users' needs that will assist them in achieving independence.

Section	Section Name	Specific objectives
A	Service users' profile	• Learn more about the service users' general information, their type of disorders and if these conditions affect their manipulative skills, safety, or sequence of actions.
B	Service users' eating patterns, food preferences and the factors affecting behaviour	• Identify the service users' eating routines, snacks, and meal-eating choices. • Assess whether clients follow a specific diet and if they successfully stick to the eating plan. • Investigate the service user's initiative levels for comes to snack and cooking making, emphasising their skills. • Investigate whether service users' have an accessible environment and enough support to instigate good shopping, storing, budgeting, and cooking skills.
C	Service users' plans, practical activities, strengths, and limitations	• Assess whether service users can plan meals, assemble them with items in their pantry, and read food labels. • Examine the preferred recipes of those with mental illness and their probability of attempt.
D	Development of the guidebook/cookbook	• Gather insights onto the type and level of information to include in the guidebook, with reference to the use of images and language. • Generate advice from other professionals about additional book features or material that the researcher is unaware of.

Table 6 *Objectives of the Interview*

3.2.4 Recruitment of Participants

The initial steps of participant recruitment comprised a letter of information for organisations (see appendix 2) and another for social worker (see appendix 3). Specifically, social welfare and mental health intermediaries, such as relevant government departments and NGOs that recruit social workers were invited. Unfortunately, the FSWS, Appoġġ, and Jeanne Antide Foundation could not accommodate the request for research, and the researcher was driven to seek new alternatives.

At this point, the researcher targeted organisations with a greater focus on mental illness, including Richmond Foundation and Mount Carmel Hospital. The researcher also contacted the Maltese Association of Social Workers (MASW) to help recruit participants. These organisations acted as gatekeepers by accepting the request for research (see appendix 4, 5 and 6) and circulating the recruitment letter for social workers with consent forms.

Due to the changes in host organisations, resolving issues with the University Research Ethics Committee (UREC), and waiting for participants to express interest in recruiting, the researcher was directed to begin data collecting later than originally planned. It took quite a while to find suitable, interested participants that fulfil the convenient sampling criteria for more data reliability (see Section 3.2.4). The participants could be either male or female social workers with some experience and were selected on a first come, first-selected basis.

3.2.5 Ethical Considerations

To ensure compliance with ethics and morality, the researcher refrained from collecting data before receiving ethical approval from the Faculty Research Ethics Committee (FREC) and University Research Ethics Committee (UREC). After attaining such approval (see appendix 7), the researcher first contacted organisations, and once they accepted, started recruiting suitable informants for this study.

Each interviewee was provided with a consent form before the interview. The consent form (see appendix 8) granted the interviewee the right to refuse or stop participating without giving any reason and having all collected data deleted in such an event. The researcher avoided putting undue pressure on the respondents at any point in the process.

Interviewees were asked to be audio/video recorded and informed that the same recordings would be stored in different mediums and kept for a year. Each social worker could choose whether to review extracts from the interview transcriptions before being published. Under the General Data Protection Regulation and national legislation, participants have the right to access, rectify and ask for information concerning them to be erased. All data was kept confidential and no personal information was recorded. Pseudonyms replaced participant's name to hide their identities, even though the researcher could still identify the target audience due to in-person or video interventions.

As the researcher interviewed social workers working with vulnerable patients with mental health conditions, extra caution was needed regarding the choice of wording

in questions to social workers. As a researcher, during data collection, the interviewer demonstrated sensitivity and respect in the choice of words and attitude.

There were incidental findings such as uncovering certain gaps in social workers' knowledge during interviews related to nutrition and food hygiene. In such a case, the interviewer was prepared to guide the social worker to appropriate reference material once the interview was over.

3.2.6 Pilot Testing

To verify the interview questions, the researcher consulted with a university graduate who had previously worked on a dissertation employing a similar process. The participant suggested dividing the interviews into four sections and providing an overview of each section's content. Additionally, it was suggested to shorten the interview guide by consolidating questions. Such feedback was considered when making necessary amendments (Schroder et al., (2010).

3.2.7 Implementing the Interview

Individuals who expressed interest in participating were contacted through email. All the interviews were conducted during their working hours, at a time and date that suited them.

The interview began with a brief introduction regarding the purpose of the interview, and a brief synopsis of each component was provided prior to the beginning of each section. In addition, the written consent was discussed and signed, demonstrating assurance of anonymity and secrecy. Every interview lasted about one hour to one and a half hours and was held separately, having each contributor interviewed only once. Participants were asked if they would prefer to conduct interviews in person or remotely. Three interviews were conducted remotely and one in person.

Since the interviews are professionals, the interviews were conducted in English and video/audio recorded per their preferences. If a participant did not wish the session to be recorded, rough notes were taken instead. Rough notes were collected in all the interviews to remind the reader of what was discussed and act as a backup in case the recording was deleted, corrupted, or lost. A password-protected drive was used to save the recordings as an additional backup. After the interview, participants were thanked for their participation.

3.2.8 Analysis of Data

Analysing and making sense of data helps answer what all the collected data means and stands for. According to Trent and Cho (2014), analysis is the process of summarising and organising data examine findings and interpretations. Microsoft word software was used for data transcription to analyse the provided data, and ‘Otranscribe’ was used to help transcribe the audio faster. 'Otranscribe' was used to slow the audio and provide sufficient time for typing up both the transcript and any additional comments.

After each interview was transcribed, the researcher consulted the signed consent forms, to identify the individuals who wanted to see parts of the transcribed interviews, and then sent them the relevant transcripts. After reading all four transcriptions twice, the researcher gained familiarity with the transcripts and the interview notes.

The researcher then manually passed on the coding data and, read all four transcriptions more than once, reviewing the information and making short notes about thoughts, ideas, and points. Short notes were written in the margins, with important words and phrases being highlighted. Here, the researcher started to

prioritise data by figuring out which data would help answer research questions the most (Saldana, 2014).

The researcher compiled a table for each participant, each of which was further evaluated. The investigator then looked for patterns and connections between the codes and grouped them based on their similarities. Themes then occurred using phrases having a greater significance than a collection of codes.

Memo writing was then adopted linking the codes and interpretations by documenting impressions, ideas, and emerging understandings acting as descriptions/ summaries, and interpretive ideas about how a theory or piece of literature relates to a segment of coded data (Hesse-Biber & Leavy, 2011).

Interpretations affect how a researcher makes sense of gathered data. To develop meaning from the coded data, the research used memo notes, looked for patterns across the data gathered, took note of abnormal data, and looked for links between different categories, concepts, and/or themes. Theoretical triangulation was utilised by looking at data through the theoretical lenses (see Section 3.1.2), which allowed different interpretations to emerge per the research purpose and questions.

3.2.9 Transparency, Validity, and Reliability

Before it can be presented, certain steps must be taken to ensure the researcher's study is valid, reliable, and honest. For validity, the researcher chose the appropriate sampling to gather valid data, adopted the triangulation method when interpreting data for more perspective lenses, and used proper audit and documentation when transcribing and referring to literature resources. In the case of self-reflections, the researcher created an open and honest narrative about their life background,

including previous episodes, ethnicity, gender, and socioeconomic origins that shaped their interpretations (Golafshani, 2003).

The research's reliability was safeguarded by checking transcriptions to ensure they were error-free from any mistakes and sent for review if required. Moreover, research tools were carefully chosen to ensure that these would gather the proposed information. Additionally, when planning interview questions, the researcher attended webinars to hear more about the participants' experiences with mentally ill patients to form questions that better align with the service users' needs (Golafshani, 2003).

To ensure transparency, the description of the research logistics, such as research design, methodology, interviews, target audience, interview structures, implementation of data collection, ethical considerations and researcher's intentions in the study were openly discussed in steps (Moravcsik, 2019).

3.2.10 Limitations

Due to a lack of time, only four social workers could participate in the investigation. More participants and talking to different professionals, like occupational therapists and social support workers, would have given more information and deeper insights. Additionally, not all organisations accepted the request for research, for which data could have been enriched and a holistic picture seen if more organisations collaborated. The small sample of social workers may have responded to questions with personal prejudice. In addition, the fact that the interviews were video- or audio recorded, and the interviewees were identified may have prevented them from making some critical comments or expressing the reality of the situation (Almeida et al., (2017).

3.3 **Conclusion**

The purpose of this chapter was to describe the steps involved in the Phase 1 baseline investigation. The next chapter presents the results of the baseline study. Then Phase 2 of the study—the creation of a guidebook/cookbook—is described in the subsequent chapter, as it required the results from Phase 1 to inform the contents and design.

Chapter 4:

Analysis and Discussion

of

Baseline Investigation.

4.0 Introduction

This chapter discusses the key findings of the baseline research involving interviews with social workers and so offers answers to the research questions in Section 1.2. to identify any areas that should be addressed during the formulation and guidance on implementation of the healthy eating guide. The aim is for social workers to utilise and refer to the healthy eating guidebook/cookbook to assist their service users in learning how to live independently. Interviews were analysed using thematic analysis using deductive coding. The analysis was interpreted using the theoretical lenses described in Section 3.1.2; phenomenology and ethnomethodology.

4.1 Description of Sample

One-to-one, semi-structured interviews were conducted with four social workers, two of whom work at Mount Carmel Hospital and the other two at the Richmond Foundation. Table 7 describes the sample recruitment with further information about the interviews. As the researcher evaluates and interprets primary data in this chapter, the pseudonyms P1, P2, P3, and P4 were used throughout in place of the participant's actual identities.

Person Pseudonyms	Designation	Host Organisation	Date of Interview	Time in	Time out	Location of Interview
P1	Social Worker	Mount Carmel Hospital	7th October 2022	10:00 am	11:05 am	Online through Zoom
P2	Social Worker	Mount Carmel Hospital	25th October 2022	10:30 am	11:40 am	In Person Dar Sebħ Ġdid, Mount Carmel Hospital
P3	Social Worker	Richmond Foundation	7th November 2022	11:30 am	12:05 pm	Online through Zoom
P4	Social Worker	Richmond Foundation	17th November 2022	9:00 am	10:10 am	Online through Zoom

Table 7 *Details of the Participating Interview*

4.1.1 Description of the Present Clientele of Social Workers

Table 8 presents an overview of the social workers' typical service users, listing the themes and codes as they emerged from the data. According to the interviews, social workers interact with many adult service users with specific needs who are between 30 and 60 years of age of mixed genders (See Table 8). The services provided to meets the adults' needs may reflect neoliberalism, which is a change in ideology for better social progress and economic freedom (Seo & Park, 2021) and approaching these rehabilitation programmes to reach independent living.

Themes	Codes
Gender	"Mixed".
Nationalities	"Maltese, African regions, European, English".
Disorders	"Depression, schizophrenia, anxiety disorders, OCD, phobias".
Soft Skills	"Institutionalisation, difficult, support, lost, not obtained".
Health Conditions	"Blood pressure, diabetes, cholesterol, smoking, alcohol, drug use, obesity, mobility, thyroid".
Transportation	"Public transport, lifts, drive".
Symptoms	"Withdrawal, neglect, compulsive, mania".

Table 8 Service Users' Profiles: Themes and their Codes as Emerging from the Data

Currently, most service users are Maltese, Africans such as Sudanese, Americans such as Colombians and Europeans such as Italians, Ukrainians, and Germans. Depression, schizophrenia, anxiety disorders, obsessive-compulsive disorder (OCD), and phobias are the most frequent problems social workers receive requests for support. Individuals with such disorders often exhibit negative symptoms, like feeling withdrawn and isolating themselves, ignoring self-care or expressing anxiety about stepping out in public, showing overactivity, or seeking perfection in tasks. Some live with their families, others alone.

Due to these circumstances, service users lack independence; hence, most users reside in a residential facility like 'Dar Sebħ Ġdid' at Mount Carmel Hospital or in the five houses of Richmond Foundation to follow a rehabilitation programme that emphasises teaching everyday skills to encourage independent living. Only a few of the respondents' service users drive. Notably, those who drive are often individuals with modest symptoms who attend full-time or part-time occupations and respond well to treatment. Others are urged to use public transportation, utilise Mount Carmel Hospital's transportation services, obtain rides from family or friends, or walk.

According to a study conducted by Caldas de Almeida and Killaspy in 2016, their research indicated that hospitalisation could lead to a decrease in functional capacities. In line with this, P3 and P4 said that hospitalisation effects the functional capacities of service users and, consequently, "find it difficult to do daily tasks" (P4). Social workers remarked that they encounter people who never had the chance to acquire autonomous abilities and certain soft skills. All the participants in the study reported that service users experienced common physical health issues, including obesity, diabetes, CVD, high cholesterol, and high blood pressure. These findings align with previous literature, specifically the work of Corell et al., (2017),

emphasising the link between physical and mental health due to medications, poor diet, and weight gain as a side effect of ongoing treatment.

4.1.2 Service Users Food Acquisition, Preparation, Choice of Ingredients and Consumption

Table 9 presents an overview of the typical service users' food preparation, cooking, and consumption behaviours, listing the themes and codes as they emerged from the social workers' interview data similar to the findings presented in Table 2 (Factors for the Lack of ILS). These findings highlight that various conditions experienced by service users can have an impact on their users in several ways, including changes in appetite and fluctuations in weight. This was further highlighted when different social workers remarked on nonlinear eating routines (see Table 9).

Themes	Codes
Eating routine	"Apathy (no food, snacking, no linear patterns, menu making".
Foot items loved	"Basic, ready-made, traditional, warm foods, carbohydrates, cheesecakes."
Food items avoided	"Grilled/visible vegetables".
Snacks	"Jelly, yoghurt, big meals, cakes".
Specific diets	"Nutritionists, diabetic, warfarin medication, CVD, overweight".
Cooking skills	"Basic, assistance".
Accessibility	"No signs, sharps on request".
Hygiene and safety precautions	"Prompting, basic, cooking together".
Shopping	"Independent, Assisted shopping, shopping list, unhealthy habits, readymade items".
Influences on food acquisition and preparation	"Patterns of behaviour, gender and occupation, mood, not planning meals ahead."

Table 9 *Service Users' Food Behaviours Themes and their Codes*

The following quotations reveal various aspects of the service users' food behaviours which were of interest to this study.

> P1: "A person with mania will probably eat more snacks because he/she will not have the patience to sit and wait for food to cook. A person with OCD will most probably be more careful about what type of snacks to prepare and consume to avoid dirtying the kitchen. A person with certain apathy will take a yoghurt, or fruit or prepare a basic sandwich or cereal and not prepare a full meal."

This quotation highlights the dynamics of mental health and how it can affect food consumption differently. The same social worker remarked that if a person is not receiving enough support, it will be challenging to maintain a good eating routine. Although different health conditions affect eating routines in diverse ways, eating routines can be improved through appropriate support like individual attention, menu making with residents, and cooking together. Menu making generally includes seasonal items, and various food items set according to the majority's preferences.

HSE (2022), stated that planning meals by storing and freezing them in portions as to have for next few days is a good practice to help maintain healthy eating routines. However, the findings indicated that neither Richmond Foundation nor Mount Carmel engages their service users in planning ahead and in bulk. This is because, according to the social workers, residents rarely muster the fortitude to prepare small servings of food. Therefore, the social workers try not to discourage the service users by asking them to plan large quantities at once.

It was found that the residents love cooking basic and not time-consuming recipes. P2 expressed that residents generally love eating warm soups, like pureed vegetables, even in summer, but tend to avoid eating grilled vegetables or vegetables visible on the plates. Furthermore, P3 remarked that residents opt for plates filled with carbohydrates such as pasta dishes, bread, homemade pizza, wraps or burgers. Traditional recipes such as 'Balbuljata' were also suggested as favourites for the residents. Care workers try to include meat and fish plates to encourage healthier eating. They offer snack services in their rehabilitation accommodations to engage the residents in a healthy eating routine. For snacks, care workers assist in preparing complex meals, but delegate preparation of basic small snacks on service users.

Service users or residents differ in their abilities when handling food, from minimal to high competency, as can be seen from the below quotations.

P4: "There are those who are really basic, and there are those who are mothers and know how to cook and take over."

P2: "We have residents that know how to cook independently from scratch but there are others who do not know how to cook alone and require more guidance."

Some simple snacks 'taught' included simple sandwiches that require cutting skills like chopping vegetables, layering, and moulding skills in jelly making; or simple grab and go snacks like yoghurt, fruits, and cakes. That said, social workers at the residences encounter a wide variety of competent adults as well. To make any cooking session more accessible and safer, staff keep sharps stored away from the

residents and these are only given on request or under the surveillance of staff members when the need arises. There are no signs and labels in the kitchens, as these rooms are used with the assistance of care workers.

Particular skills are facilitated and/or assessed by the social workers as seen from below example.

> P4: “When the occupational therapist did the assessment of how to cut and hold a knife, he did not even know how to do it.”

This quotation highlights that gender and occupation differences may affect some ILS. The significance of giving specific instructions, such as stating the precise dimensions and sizes for slicing vegetables was emphasised in remarks by carers.

Also, certain conditions such as depression, anxiety or negative symptoms make the service users prepare food out of necessity; therefore, the basic and quick is what attracts best.

Overall, in line with the literature, cooking interventions with other members and assistance through an individual care plan serve as a therapeutic session in a rehabilitative environment (Farmer et al., (2017).

When asked whether service users utilise specific diets, all the social workers emphasised its significance and stated that users sometimes require alternative meals. Specifically, one interviewee mentioned that they had a service user taking warfarin medications, and so must cater for her diet, by providing foods that “strengthen the blood”, such as fatty fish, nuts, walnuts, and avocado. It seems the social worker was referring to the value of omega-3 fatty acids foods; not so much related to blood thinning. For such a service user, it would be important to avoid too

many Vitamin K food sources, such as spinach, broccoli, cabbage, kale so as not to counter the blood thinners being used (NIH, 2021).

Social workers also acknowledged that staff members provide menus low in carbohydrates to those trying to lose weight or suffer from diabetes. They also offer alternative meals to those with blood pressure and CVDs and encourage them to consult with nutritionists. Unfortunately, some service users struggle to stick to the guidelines despite the presence of charts as reinforcers at the rehabilitation homes. In fact, when left to their own devices, most service users deviate from the shopping list and buy fast food items such as cheesecakes (pastizzi).

4.1.3. Service Users Potential for Learning

A better understanding of a service user's potential for learning requires detailed knowledge of their cognitive abilities, learning style, motivation and interest, prior educational experiences, and other personal factors such as emotional and endurance qualities (OECD, 2009). Hence, social workers were asked about various aspects of the aforementioned areas (see Table 10) presents the emerging themes and codes from the various interviews which will be discussed below.

Themes	Codes
Comments on healthy eating	"No feedback".
Advice	"Role modelling, Proper storing options, choosing healthy options, food preparation".
Cooking Ahead	"Small meals every day, lunch a day before".
Food labels	"Not aware, talks, long progress".
Strengths	"Understand and accept, resilient, effort".
Weaknesses	"Lack self-control, opt for convenience, financial situation".
Enjoyed cooking recipes	"Traditional foods (e.g., balbuljata, kuksu), spaghetti Bolognese, soups".

Table 10 Service Users' Potential for Learning Themes and Codes

The professionals were asked whether service users passed any positive comments after eating a nutritious meal. Due to conditions such as depression, and its negative symptoms, pleasure sensations are sometimes absent, or the service users do not have that insight (Gotlib & Joormann, 2010). Yet, social workers interviewed believe in the power of empowerment, motivational comments, and leading by example to encourage service users to consume wholesome food.

> P4: “We attempt to motivate them as much as possible, and we try to ensure that they do not ingest large or substantial dinners such as pasta in the evening. To help them feel better, we plan large, substantial meals for lunch and then smaller, lighter meals, such as poultry, for dinner.”

Considering this, the Brigham and Women's Hospital (2022) conducted a study comparing the effects of daytime and nighttime eating versus daytime eating only and discovered that the timing of food consumption is a great technique to potentially reduce mood sensitivity.

The social workers also suggested that service users require more understanding regarding suitable storage options. They require assistance determining where to store specific food items, such as in the refrigerator, freezer, and pantry. Service users also require more information on the initial steps in food preparation, being organised and also serving. Social workers try to educate service users on the necessary steps before cooking like finding ingredients, the proper attire for safety and hygiene, preparing and using adequate utensils, weighing, and measuring, using proper chopping techniques, following a recipe, and serving. In addition, professionals attempt to educate residents on the fundamentals of reading food

labels, like searching for expiry dates, comparing prices, and selecting foods with fewer sugars and fats, as some are unaware or find this daunting.

One social worker remarked that there is a shortage of food services for people with mental disorders to promote independent living, further emphasising the need for healthy and basic food preparation education for independent living.

> P1: “A person over 60 can make use of meals on wheels to get nutritious food at cheaper prices, but people with a mental health condition who are younger do not have access to similar services from the comfort of their homes, or if they do, such services are offered at a much higher rate.”

Social workers described how service users have various strengths and weaknesses, with some residents being rather resilient and, trying to be as independent as possible. They also accept advice and try to comply with other team members when things are explained.

> P3: “Although residents have an urge for unhealthy food items during the menu meeting, they accept healthy food after we explain its importance.”

Notably, social workers remarked that even though most residents are going through challenging times, they still do their best to support themselves and improve, which is essential for the future. Focusing on the weaknesses of service users and actively involving them in the process will play a significant role in enhancing their overall development (Omeni et al., (2014).

Varied weaknesses or barriers to healthy eating among service users were identified by the social workers. Low income, fewer working hours to support mental health, or

reliance on social benefits were identified by social workers as financial barriers to healthier eating, thus emphasising the need for inexpensive ingredients. In addition, the loss or lack of functioning skills because of institutionalisation or the inability to perform activities of daily living for reasons such as never having resided in the community due to supported housing or hospitalisation were also highlighted as needing to be addressed. Some service users' frequent desire for fast or processed foods was discussed, so healthier alternatives to these foods would need to be considered to address this vulnerability. A social worker remarked that residents need to understand that a single food item can be presented in multiple forms, such as potatoes can be served whole, blended, pureed, sliced, or mashed; therefore, encouraging food innovation and versatility in simple ways. All these factors would need to be kept in mind for an 'educational' resource development.

4.1.4 Recommended Features for the Guidebook/Cookbook

The exploratory data collection revealed that collaborating with other professionals working closely with the target audience was essential to create a practical healthy eating and recipe book, since their advice is based on years of experience with such service users and additional research. Social workers suggested a list of topics that service users would find interesting.

> P1: “For sure, they snack, as there are some medicines that open their appetites, so they search for snacks. Add recipes for snacks that are easy to follow and healthy to consume. Also, if someone finds it difficult to make a whole meal, a snack will be ideal to start with, especially as it is easy and does not involve a lot of work or time to prepare.”

The same professional also commented that it would be relevant to include sections related to storing, such as storing bought food in the cupboard, fridge or freezer and also including cooked food storing options.

> P1: “What to do with extra portions, the shelf life of products when freezing or putting them in the fridge, and how to preserve leftover foods.”

All three other social workers mentioned the importance of discussing healthy and nutritious recipes, especially scheduling for the whole week. However, shopping and preparation are also crucial, as service users cannot begin cooking without the proper preparation skills. P4 put forward the idea of also including some portion size guides and emphasising the consumption of water, even infused water, alongside a healthy meal. All participants mentioned the need to present something basic to

attract low and high ability service users. P2 suggested adding some tips on physical activity as it is essential for complete healthy living and self-care.

In keeping with the literature on ‘Guidelines for Accessible Information’, the researcher recognised the need to employ a sans serif front in the proposed guidebook/cookbook as this is easier to read, also on screens, due to a simpler design. The researcher also acknowledged the need to use point form sentences with at least a 12-point font size and non-text equivalents through pictures and photos to benefit users with little to no reading abilities (Turner-Cmuchal & European Agency for Special Needs and Inclusive Education, 2015).

To create a guiding resource that is accessible to everyone without generating further segregation and stigma on mental health (Stuart, 2016), it was intended to have the same healthy eating recipe book for both social workers and service consumers. Inclusivity would also be practised with respect to language. Social workers suggested that the guidebook/cookbook would be produced in both English and Maltese, so locals and foreigners would be able to follow it easily; however eventually only an English version was created due to unexpected length the book eventually reached and considering the time available and expected for working on this project within the MTL dissertation parameters.

4.1.5 The Researcher's Critical Interpretations of the Interview Results

Approaching the findings from a critical perspective underscores the crucial nature of addressing both the mental and physical health needs of service users. This involves promoting healthy recipes that prioritise both mindfulness and physical wellbeing, recognising the interconnectedness of these aspects. Additionally, there is a clear need for nutrition education and assistance with meal planning and preparation. While adults bear individual responsibility for their wellbeing, societal support is indispensable in fostering independent living. Considering the wide range of abilities among service users, a guidebook/cookbook that caters to basic needs is preferred to ensure inclusivity and reach everyone in their learning objectives to create healthy eating habits, and ILS.

4.2. Conclusion

This chapter outlined the findings of the preliminary research and offered answers to the research questions. An element of discussion was presented to explain how the findings substantiated aspects of the literature review, as well as how the findings would be addressed in the proposed resource development.

Based on the literature review and primary data, the next chapter presents the actual implementation of the project- the design of the healthy eating guidebook/cookbook. Since the product aims to serve a large group of varied users, the focus is somewhat general. However, particular attention is given to the two main research questions identified in Section 1.2, which involve tackling dietary recommendations based on the findings and tailoring them to the users' eating preferences and cooking abilities outlined. Thus, Chapter 5 provides a more comprehensive description of the features and development of the draft educational guidebook/cookbook, justifying different key choices.

Chapter 5:

Quality and Originality

of the

Guidebook.

5.0 Introduction

This chapter discusses the production of the draft educational guidebook/cookbook considering the requirements of the service users, with primary and secondary research findings as the focal points. By promoting wellness, this guidebook/cookbook is designed to encourage and facilitate healthy independent living among adults with mental disorders to improve their emotional state. As remarked in Section 4.2. secondary and primary data were used to answer the research questions in Section 1.2. to provide a solid foundation for deciding where to concentrate efforts during the production of the guidebook/cookbook.

This chapter elaborates on the justification of the guidebook/cookbook, source for selection of the cookbook's content, and consequent aims and objectives, pedagogical approach, the principles, and design adopted to increase accessibility.

5.1 Justifications for Selecting a Guidebook/Cookbook

The endeavour to create a resource to guide social workers and their service users on healthy and safe eating could have been carried out in various informational formats, including developing, videos, websites, and apps; however, the researcher opted for a guidebook/cookbook.

This decision was made after critically analysing benefits of different resources after meeting with representatives of the primary target audience being warranted social workers with over three years of working experience with 30 to 60-year-old mentally ill service users.

One main reason is the guidebook’s physical nature, which adds to sensory stimulation and makes it more flexible for learning as people can learn at their own pace, allowing time for those needing to take breaks or revisit certain sections. As

social workers must have the guidebook/cookbooks to work with their service users, a physical copy is more convenient for simpler access, constant availability, easier markings, and tactile reading.

Guidebooks/cookbooks can also accommodate more learning styles and needs; for instance, by incorporating visual aids such as step by step pictures or by using bigger font sizes to better accommodate the visually impaired service users. Due to their text-based nature, guidebooks are also intended for people who prefer to learn through text-based nature, guidebooks/cookbooks are also intended for people who simply prefer to learn through reading. Making the guidebook/cookbook 'interactive' through motivational personal questions, may prove a more hands-on experience that may help kinesthetic learners who learn through real life situations.

Unlike other learning resources such as some websites, or apps, guidebooks explicitly written for a purpose are usually distraction-free (without pop-ups and recreational advertisements). Hence, a guidebook/cookbook can be designed to be more calming and focused, with simple layouts and visually clear language ideal for a target audience where there may be mental health issues.

5.1.2 Applying Principles of Andragogy

The educational guidebook/cookbook focused on problem-centred content. It was developed using andragogy principles for adult learners by providing practical solutions that individuals can apply to their daily lives, whilst respecting any life experiences and through harnessing any existing knowledge and skills. The researcher identified the service users as learner's needs through interviews with social workers and worked on creating relevant problem-centred content in the guidebook/cookbook. The researcher also tried to incorporate practical information

for solutions, for the social workers to help transmit to and train their service users to utilise in real-life or simulated learning situations.

5.1.3 The Use of Baseline Investigation

In developing the guidebook/cookbook, it was essential to clearly understand the needs and requirements of service users to plan an educational guidebook based on pertinent content and andragogy principles. This was achieved by analysing the data gathered from the interviews with the social workers (see Table 11).

Focus area	
Baseline study results	Relevant information for the guidebook
All social workers mentioned foreign service users.	Include some ingredients and dishes from different cultures to foster a sense of belonging (Contento, 2011).
All participants mentioned that service users suffer from similar health concerns such as diabetes, cholesterol, blood pressure and obesity.	Including recipes low in fat, sugar, and salt, as well as recipes with plant-based fats, more natural non-plain sugar sweeteners and more herbs and spices for flavouring.
All respondents remarked on nonlinear eating routines.	Indicate the recommended serving sizes as per the National Dietary Guidelines for adults with lower energy needs.
Storing and freezing leftover foods is absent in residential homes. Residents find it difficult to store specific food items.	Sharing some suggestions with recipes on how to store leftover prepared foods and reducing the serving sizes of recipes to decrease food waste. Includes the correct labelling when storing foods, the shelf life of prepared recipe and suggestions for utilising leftover ingredients.
Service users love eating foods high in carbohydrates, traditional and fast-food items and replace drinking water with coffee or coke.	Modifying recipes to fit the service users eating demands such as homemade burgers, bread pizza, cannoli, balbuljata, zucchini noodles and brownies. Promote flavoured drinking water or homemade lemonades. Thus, adults will recognise the significance of a healthy lifestyle over a temporary diet plan.

Table 11a *An Overview of the Baseline Study Results with Related Possible Information for the Guidebook/Cookbook*

Focus area	
Baseline study results	Relevant information for the guidebook
Most service users lack shopping skills such as buying unnecessary items.	Cultivate the essence of a grocery shopping list and tips on how to stick with it such as not going shopping on an empty stomach or when in a bad mood. Wise shopping practices suggestions such as looking at expiry dates, comparing prices and benefiting from store discounts are all relevant in such a case.
All 4 social workers mentioned that service users determine assistance on the proper attire for safety and hygiene, weighting, measuring, and chopping techniques with appropriate sizes.	Provide easy weighting and measuring techniques such as weighting at eye level or keeping the measurements of the dry ingredients a level to the measuring spoon. Basic hygienic procedures prior to beginning cooking such as washing hands according to the WHO method and fundamental step-by-step chopping skills with exact numerical measurements will be helpful.
Social workers remarked on the essence of educating residents on reading food labels, searching for expiry dates, comparing prices, and choosing items with low amounts of sugars, fats, and salts.	Familiarising service users with food labels and the quantities to look for on each product such as choosing items with less than 3g fats, 5g sugars and less than 0.3g for salts as suggested in the dietary guidelines for Maltese adults.
One Social worker mentioned that service users lack portion size control.	All constituent quantities must be inputted in accordance with the dietary recommendations for adult Maltese portions.
Social workers recommended the need for a section on physical activity for complete self-care.	Basic and brief physical activities that involve the movement of various body parts, such as the arms and legs.

Table 11b *An Overview of the Baseline Study Results with Related Possible Information for the Guidebook/Cookbook*

Based on baseline study, the researcher also sought to identify the clients' stage of change according to the TTM. However, when analysing the social workers' descriptions, it turned out that service users are at different stages, so the proposed guidebook would ideally be tailored to address different stages of change for a more broadly usable product.

5.1.4 Aims and Objectives

Once the needs and requirements of the service users had been identified, it was essential to align them with the overall aims of the guidebook, yet also set out more specific objectives.

Aims
Promote self-care practices and education to enhance well-being, independence, and self-empowerment.
Empower individuals to make informed choices about their diet through accessing healthy and clean foods to promote both physical and mental wellness.
Equip individuals with practical tools and strategies to improve functioning skills for autonomous living.
Objectives (The guidebook/cookbook focus and design)
Design a simple, affordable, and healthy meal plan for one week to encourage independent cooking and promote good nutrition.
Develop a resource that covers essential preparation skills required for cooking, such as meal planning, grocery shopping, kitchen safety, hygiene, measuring, and weighing.
Objectives (Upon completion of the guidebook/cookbook, service users would be able to achieve the intended outcomes)
Encourage individuals to practice healthy eating habits while developing the necessary skills for meal preparation.
Practice good storing options whilst adapting recipes based on the season and tips provided to promote long-term sustainability, affordability, and nutritional value.
Create a sense of inspiration, empowerment, and inclusivity to individuals with mental illnesses to cook independently, improve and find a place back in the community.

Table 12 *The Draft Educational Guidebook/Cookbook Aims and Objectives*

5.2 Planning the Educational Guidebook/Cookbook

5.2.1 Selecting the Content

Data from the interviews generated some ideas regarding the type of content to concentrate on for the guidebook/cookbook; however, these were organised and broken down further in a concept map to convey the varied information and skills to be targeted. This assisted the researcher in identifying focus areas among emerging ideas (see Figure 6).

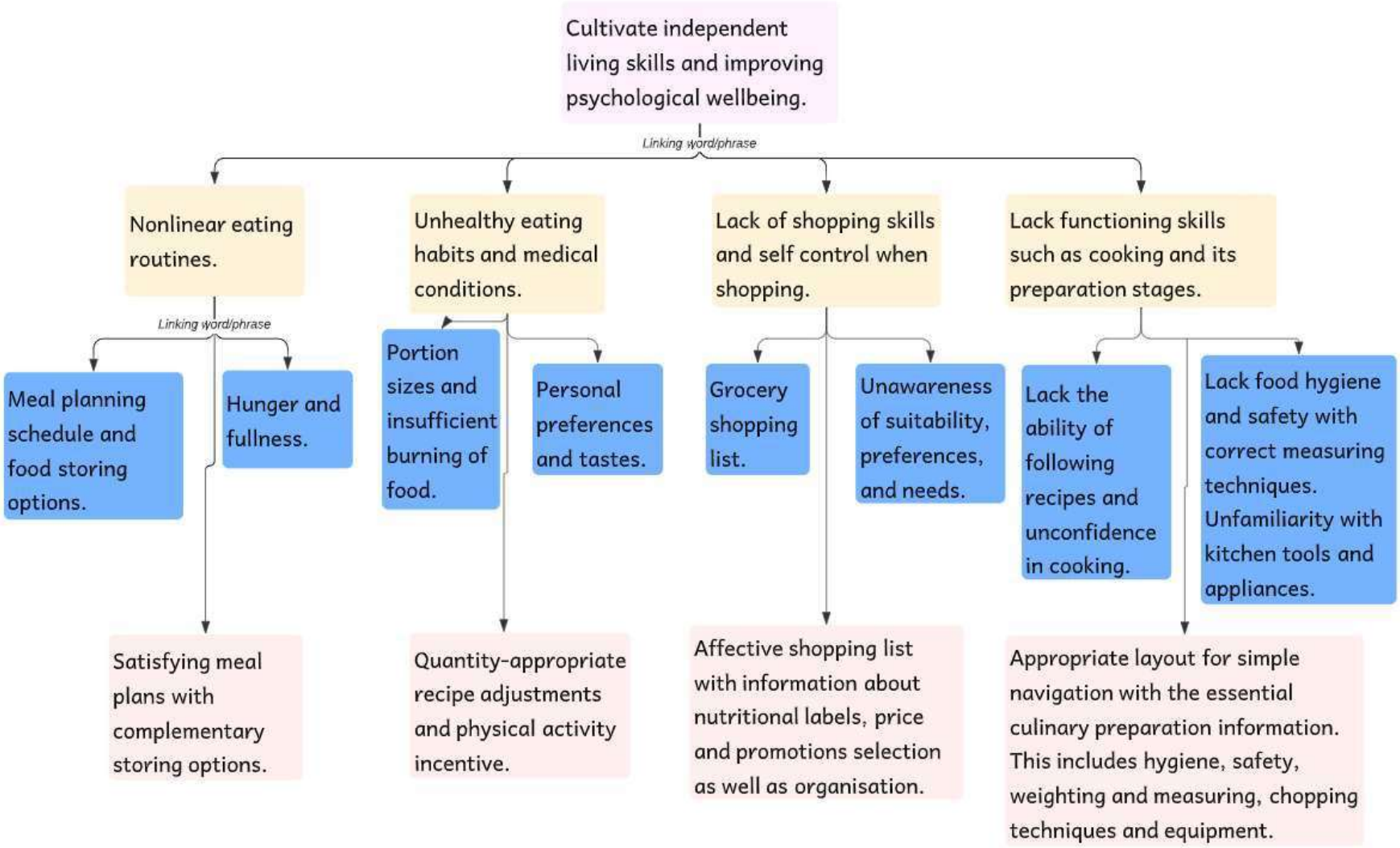


Figure 6 *Creating a Concept Map to Organise Emerging Ideas and Determine Focus Areas for the Guidebook/Cookbook*

Figure 6 illustrates that results pointed towards the importance of including in the guidebook guidance regarding meal planning, recipe modifications, alternative storage options, a detailed shopping list, and basic cooking skills for supporting the independence and psychological wellbeing of service users with chronic mental illness. To effectively address the multiple challenges these individuals face, it was crucial to prioritise these elements in content planning and link them to relevant literature to enhance the approach's effectiveness. In Section 2.2 the researcher explored the challenges that individuals with chronic mental illness face when striving for independent living, such as stigma, sequencing difficulties, lack of organisational skills, mental health symptoms and financial barriers.

Thus, the guidebook/cookbook aimed to address all aspects, including outlining a one-week meal plan with inexpensive dishes comprising breakfast, lunch, snack, dinner, and dessert. All the chosen recipes were designed to be quick and easy to prepare so as, not to overwhelm service users with too much work or daunting tasks. This is particularly important as mental health conditions can sometimes lead to negative symptoms such as apathy, mania, or OCD, making it difficult for individuals to complete tasks or feel motivated. Considering this, quotations were included in the guidebook/cookbook as these were deemed helpful to keep the service users' motivated and boost their morale.

All recipes come with tips on how service users can adapt recipes according to seasonality and also have tips on how to store any left-over foods and rework staple food items such as bread into breadcrumbs. All recipes were planned according to the dietary guidelines for Maltese adults (Health Promotion & Disease et al., (2015) by trying to plan recipes according to the suggested daily serving amounts and sizes, such as two servings of white meat, three servings of fish and trying to create plates

that included a combination and variety of foods from the groups of vegetables, cereals, milk, meat/fish/poultry/legumes, fats, and fruit.

The researcher also considered the MIND diet in the choice of dishes (Harvard T.H. Chan, 2023) to create a generalisable product to accommodate most service users, even those with Alzheimer's, through good use of wholemeal grains, green leafy vegetables, beans, poultry, nuts, and olive oil as indicated in the literature review. Recipes were thoroughly tested and revised to ensure optimal quantities, texture, and flavour. For example, a cookie dough made from chickpeas was initially planned, but upon testing, it was found to be more complicated and time-consuming than expected, so it was replaced with banana pudding.

With respect to actual shopping for food, the benefit of reading food labels for making healthy choices low in fats, sugars and salts was highlighted. The parts of the food label which provided pertinent information were indicated and their use explained.

Effective meal preparation requires proper planning and skill. For instance, one social worker reported that a service user lacked basic knife skills. This underscores the importance of not assuming prior knowledge or experience, and the need to provide step-by-step instructions such as holding a knife and ways to create basic cuts such as wedges, cubes, minced, sliced, mashed. By doing so, service users can better understand and appreciate the versatility and adaptability of simple food items. Hence, a step-by-step account was provided on how to hold a knife and chop certain food items. Clear descriptions were also presented on how to accurately weigh and measure ingredients using the appropriate tools for dry and wet components.

The guidebook also emphasised the importance of prioritising safety and hygiene before and during cooking. Basic tips were provided, including adhering to the WHO

hand-washing guidelines, tying back hair, wearing an apron and hair net, properly cleaning cooking surfaces and utensils, correctly storing food in the refrigerator, and safely handling sharp tools. The significance of regularly replacing damaged or rusted items and of searching for expiry dates on food to ensure that one would consume them in time was also highlighted.

A shopping list template was created with sections for easy marking to help individuals remember required items, save time, and reduce impulse buying. To reduce costs, recipes were modified to use similar or already-purchased ingredients for dishes in the weeklong menu; that is, allowing one ingredient, such as cabbage, coloured peppers, zucchini, or mushrooms, to be used in multiple recipes. Additional tips were also given, such as looking for cheaper items on lower and upper shelves, taking advantage of store discounts, sticking to the shopping list, and avoiding shopping in a bad mood. These measures are necessary because supermarkets often place necessary items further inside the shop to instigate unnecessary buying.

5.2.2 Structure and Development of the Educational Guidebook/Cookbook

The structure was chosen after deciding on the content, to make the guidebook/cookbook more organised and adhere to a logical and clear presentation. Table 13 better illustrates the structure adopted for the “Self-care Cookbook” and its justifications based on reasoning and Prochaska and Diclemente’s (1997) TTM.

Section structure	Justification
Front page.	It serves as the first point of contact between the reader and the guidebook/cookbook. It is the first impression that the reader gets and can influence their decision to read the guidebook or not. It sets expectations to the reader.
Quotation.	To provide inspiration, context, or additional information related to the topic of the guidebook. They can help to reinforce key messages or themes and provide a fresh perspective on the topic.
What makes the guidebook/cookbook worth engaging?	To cater to service users in the precontemplation stage of the Transtheoretical Model (TTM), the educational guidebook included a section on the benefits of participating in the cookbook. Thus, this section needed to be placed at the beginning of the guidebook/cookbook, as Precontemplation is the stage before a person makes a change, to inform the reader and encourage the individual to think about making changes.
Weekly meal plan.	To appeal to service users in the 'Contemplation' stage of TTM Model, the weekly meal plan comes after the understanding on what makes the guidebook worth engaging. In the second stage, people may begin to make change, thus, order is required to keep service users focused. A weekly meal plan prepares the readers on the recipes that are coming. Thus, gives more organisation and helps to keep track with the cooking selections for the week.
Hygiene and safety rules in the kitchen.	The third stage of TTM Model, 'Preparation'. Here people are ready to act. Thus, before cooking, it is necessary to ensure that the food being prepared is safe to consume. Also, before chopping or weighing and measuring, it is important to ensure that the cooking surfaces, utensils, and hands are clean and free from any contaminants that could spread to the food. Similarly, before going shopping, it is important to have a good understanding of food safety and hygiene principles to help ensure that the food being purchased is safe and of good quality.

Table 13a *The Different Guidebook/Cookbook Sections and Justification for their Placement*

Section structure	Justification
Correct weighting and measuring.	The correct weighing of ingredients follows handwashing and precedes cooking, as hands needs to be cleaned before grabbing ingredients/utensils for measurements as well as it is essential to have accurate ingredient measurements for the recipe to be successful.
Holding the knife and different cutting skills.	Holding the knife and different cutting skills come after weighing and measuring ingredients because it is important to have the necessary ingredients prepared before starting the cutting process. Additionally, proper handling of a knife is crucial to prevent injuries and ensure efficient cutting. Mastering knife skills is also important before moving on to recipes that require specific cuts or techniques.
Grocery list and tips to consider when buying.	First, one must read about appropriate washing, weighing, and cutting differences. Then, after being well-informed, the proper implementation of cooking begins, hence going shopping. Then, one proceeds to apply the acquired knowledge in the same way it was acquired.
Day of the week, physical activity, and quotation page.	It helps create a sense of structure and organisation in meal planning, especially as it represents the day of the meal plan. Having a day of the week page in every meal plan can help one to save time and money by planning meals in advance. Physical activity in the weekly page facilitates staying on track with fitness goals as it is an important component of a healthy lifestyle. Benefiting from quotations will give a sense of inspiration to the readers, positivity, inspires creativity and comfort in the service users' daily lives.

Table 13b *The Different Guidebook/Cookbook Sections and Justification for their Placement*

Section structure	Justification
Recipe structure: (Ingredients, utensils, methods, tips, storage, and adaptations).	The structure of a recipe with the ingredients lists first, followed by the utensils list, and then the method, is a widely accepted convention in recipe writing that can help to promote organisation, accuracy, and clarity in the cooking process. As the recipe must first be implemented to reach the storage procedure, storage information was presented last. This is TTM Model 'Action' stage where people have changed their behaviour and trying to keep it. Hence, tips and adaptations come after the recipe as they are additional information whilst at the same time encourage a sense of experimentation and curiosity amongst the reader. Thus, TTM Model 'Maintenance' stage comes in as people prevent from relapsing to earlier stages, hence, adaptations and tips may be required to make further changes, improve, and keep them hooked towards trying something new.
Drink ideas for the week.	Placed after food recipes as usually drinks are served after meal to help digest the food and provide a refreshing end to the meal. Also, drink recipes tend to be less complex than food recipes. By placing them after the food recipes, it allows the reader to focus on the more complex recipes first before moving onto the simpler drink recipes.
Back cover page.	Provides closure to the guidebook/cookbook, as well as a sense of inspiration thus a call for action. Acts as a TTM Model 'Termination' Stage with no desire to return to unhealthy behaviours.

Table 13c *The Different Guidebook/Cookbook Sections and Justification for their Placement*

The structure portrayed in Table 13 reflects the developmental approach adopted for this led to the educational guidebook addressing the different stages of learning that the reader might go through as they engage with the material. Hence, the researcher started the guidebook with the basics and used clear and simple language throughout. Then, the researcher provided gradual progression through the recipes as a logical trajectory, but also with some higher-level knowledge and skills.

As an example, the researcher followed a developmental approach in structuring the guidebook/cookbook by placing recipes with specific chopping tips at the beginning of the guidebook/cookbook. This allowed the readers to learn a skill that could be implemented in later recipes, thus gradually building their knowledge and skills logically and effectively. As the readers progressed through the recipes, they would learn the process and may not require assistance; however, for those who require it, page numbers referring back to the tips were included for later recipes. Furthermore, the researcher highlighted the importance of initially labelling the final dish accurately for future use. Then, the researcher provided alternative recipes/ additional tips at the end of the guidebook to accommodate those service users with more advanced competencies. As highlighted in the literature review, Maslow's hierarchy of needs emphasises the importance of fulfilling basic needs before moving on to more advanced needs. This concept is particularly relevant to the structure of the guidebook/cookbook too.

5.3. The Guidebook/Cookbook Design

Once the content and structure were organised, the next step was to work on the design of the guidebook. As described in Section 5.2.2 and noted in Section 2.2, negative symptoms among people with mental health issues may hinder the learning process. Consequently, a design appropriate for the intended audience necessitated careful consideration, especially as the researcher intended to help bring about some behaviour change amongst the ultimate ‘audience’.

Designing an aesthetically pleasing front page was necessary to engage readers in TTM stage 1, precontemplation, and attract later stages. Research shows that different colours can evoke different moods, emotions, and behaviours in humans, regardless of demographic characteristics (Hettiarachchi & De Silva, 2012). The researcher utilised olive green, beige, and purple colours on the cover page to convey specific emotions. Olive green was selected as the primary colour due to its restful and healthy connotations and association with happiness, and calmness, making it ideal for countering feelings of tension. The Mental Health Foundation also uses green to symbolise awareness and care towards mental health difficulties and signify hope for new beginnings (National Federation of Families, n.d.) The purple colour cultivates a sense of innovation, thus initiating a sense of productivity (Dean, 2020). Meanwhile, the beige gives a sense of warmth, comfort, and serenity due to its light shade, helping readers feel more at ease, especially those with anxiety disorders. The researcher kept this theme for most book pages; however, light yellow and light blue were added to the recipe writing. These were chosen as a sign of optimism and transmit some energy that can be used while implementing the recipes ideal for people suffering from depression or lethargy. Light yellow and light blue also makes the work more

accessible to read by creating a strong contrast with black ink of the text. Font size was slightly larger than normal also to facilitate reading and reduce a sense of text-heaviness. The body text used was Andika with font size 13, while the headings were Andika font size 45.

The researcher chose a step-by-step approach and bullet form function to present recipes to enhance clarity, ease of reading, and navigation. Every step is numbered with column of text beside a picture in the next column. Every step of the recipe is supported with a real-life photo of what is being presented in writing to make it easier for the reader to follow and understand concepts better. As discussed in the literature review, according to the arguments of Contento (2011) graphics and pictures increase service users' self-efficacy by giving direct experience and guidance with clear and concise wording for more clarity, skill building, and confidence.

To make the material more accessible, the researcher left space for readers to tick next to each step when complete. This gives more structure and organisation to patients in TTM Stage 3 'preparation', who are about to take the first step for action and may need more organisation and structure before the actual implementation. Additionally, during the TTM Stage 4 'action', the markings help track progress for those suffering from OCD, providing a sense of order and control. Adaptations and tips were made using the same procedure; Andika 13, bullet form text, with picture representation for ease of use to people at the fifth stage of TTM 'maintenance'.

In this way, the design adopted adheres to pedagogical and facilitation principles by providing greater clarity using visual aids, headings, bulleted or numbered body texts, and concise language. Markings and improvement pages increase interactivity and encourage active learning, and, using sans serif fonts, incorporating white space, and navigation aids such as page numbers help to increase accessibility and

readability. Ultimately, by including an improvement page after each day, service users are more likely to reflect on their actions, identify areas for development and correct themselves.

5.4. Conclusion

This chapter gave an overview of the development of the educational guidebook, where the researcher commented on how the results of the baseline investigation were applied with theoretical principles and pedagogy to draft the content, structure, and design of an educational resource. In the coming chapter, the research reflects and analyses the educational issues of the resource and possible implications for future research.

Chapter 6:

Recommendations

and

Conclusions.

6.1 Exploratory Phase Main Findings

The exploratory phase of this study aim was to identify the food preferences and adherence to national dietary guidelines among individuals with mental disorders who are service users of certain agencies. It also aimed to gain insights into the factors influencing the food choices and behaviours of these individuals and identify opportunities to promote safe and healthier eating habits. Additionally, the study sought to evaluate the independent purchasing, cooking, and storing skills of adults with mental disorders regarding healthy snacks/meals to draft an educational guidebook to help improve ILS and self-care practices.

The study revealed that most service users were non-compliant with the recommended dietary guidelines, exhibiting a lack of consistency in their meal patterns. Social workers commented that service users display a preference for carbohydrate-rich and unhealthy foods, while still expressing a desire for traditional dishes and soups. Mainly, all respondents acknowledged the service users' tendency to prioritise comfort foods over essential groceries and ingredients for meal preparation. It emerged that the service users' capacity to prepare nutritious meals from scratch was challenged by negative symptoms such as apathy, mania, and perfectionism, in addition to potential limitations in cooking skills resulting from institutionalisation and an overly protective background. Moreover, social workers expressed a need for guidance on appropriate food storage practices, including knowledge of optimal storage locations for specific food items.

6.1.1 Application of Findings in Guidebook/Cookbook Development

The findings led to the development of an educational guidebook for social workers supporting service users with mental disorders. Careful consideration was given to the book's content, structure, and design, adhering to andragogical, pedagogical principles and TTM principles and utilising a developmental approach to ensure clarity, motivation, accessibility, interactivity, and reader reflection. The recipes in the guidebook/cookbook were carefully selected based on clients' preferences and adherence to the MIND diet and Dietary Guidelines for Maltese Adults. The meals were planned so that over the span of a week these included three servings of white fish (fish soup; fish tacos; baked fish) 2 servings of poultry (chicken burshetta; pesto zucchini spaghetti) and two servings of red meat (homemade burgers; pork meatballs) all in line with the necessary quantities. By utilising two egg-based recipes (egg muffins; scrambled eggs), each requiring more than one egg, and incorporating three additional recipes that use eggs as complementary ingredients (pork meatballs; banana pudding; oat pancakes), the researcher successfully managed to cater for the four servings of eggs per week.

The guidebook/cookbook provided creative ways to incorporate vegetables to increase intake, such as blending them into soups or using them as replacements for carbohydrates. Vegetables were also presented more appealingly, such as in the form of fries or crisps, like zucchini fries and kale chips. Nuts and fruits were the base for snacks and desserts. The guidebook/cookbook provided detailed instructions on food safety and hygiene and chopping skills with exact dimensions. It included step-by-step instructions on how to prepare each recipe. The service users were then informed on storage and adaptations of recipes as part of the developmental approach of the recipe.

The guidebook's/cookbook's layout was designed with bullet points and concise explanations, and with real-life photos to support the text. Specific colours and fonts were used to facilitate reading.

6.1.2 Critical Reflection and Limitations

One of the strengths of this study was its aim of promoting healthier and safer eating habits among service users with mental disorders, this filling a gap in available resources for social workers in Malta. The guidebook provides a practical and accessible resource to be used by social workers with service users, and possibly independently by some service users, and targeting individuals who need support and guidance on the whole meal preparation trajectory, from meal planning, to cooking nutritious meals, to storage of leftovers. It does not assume that they have the necessary skills for cooking and possibly more skills could have been shown. The inclusion of service users' preferences and adherence to national dietary guidelines in the selection of recipes was also a strength of this study.

On the other hand, the small sample size of social workers interviewed was a drawback that may have limited the generalisability of the findings. Besides this, feedback was only obtained from social workers and not directly from the service users themselves. This indirect approach may have led to biases or inaccuracies in the information collected.

Additionally, this study had to be completed in a limited time which restricted the possibility of more research and trialling. Human resources and more financial assistance would have perhaps yielded a better result as the guidebook/cookbook could have been translated into Maltese for easier readability. Furthermore, some recipes require specific utensils, such as a food processor or blender, which not all service users might not have access to.

6.2 Suggestions for Future Research

A key research recommendation is to trail the guidebook/cookbook with the service users themselves and a larger sample size to evaluate its effectiveness and identify necessary changes. This would allow for a more in-depth understanding of the strengths and limitations of the guidebook/cookbook, leading to improvements for better results.

Should the guidebook/cookbook be adopted by social workers working with individuals with mental health issues, and perhaps disseminated broadly, evaluations should be conducted to determine whether the guidebook successfully promotes ILS and self-care practices.

The service user feedback would also be valuable in identifying areas where the guidebook could be improved or adapted to meet their needs and preferences better. Therefore, future research should involve service users directly in the data collection process to ensure that their voices and perspectives are adequately represented. Additionally, it would be best to translate the guidebook to Maltese for ease of readability among local service users, and in acknowledgement of the need for educational resources in our native language.

The ultimate research study would be to conduct a quasi-experimental study where the guidebook is used with a set of service users in a structured programme and then its effectiveness evaluated (compare to a control group) in the short-term through determining the influence of the guidebook/cookbook on ILS and self-care practices, and in the medium- to long-term by examining the impact on enhanced functioning abilities and on overall wellbeing, particularly mental and physical health. One could also investigate the role of social support networks and community resources in fostering ILS among individuals with mental illness.

It is hoped that this study and resource developed will be of use for social workers and their service users with mental health problems in a real world setting and for the benefit of each.

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Appendix 1:

Interview Questions.

Appendix 1: Interview Questions.

First, I would like to get to know more about the profile of your service users.

1. Within the range 30-60years, which age groups do you work with most?
2. Do you have more male, female, or other gender service users that you work with, or a mix of all?
3. Do you have different nationalities as your clients with mental illnesses?
4. What type of disorders do the individuals under your care suffer from?
5. Do any of the disorders impact on the manipulative skills of your service users' safety awareness, or ability to do things in sequence?
6. Do these individuals typically suffer from other health conditions, allergies, or intolerances? Can you give some examples, please?
7. Are the people with mental illness rehabilitated in a specific residence or in the community (still living in their home)?
8. Do the people under your care drive or have access to easy transportation?

Now I would like to understand more about your clients' eating habits, food separation competencies and challenges, and food-related attitudes, knowledge, and skills.

9. What is their eating routine?
10. What type of food do they like/avoid? Do you know why?
11. Do they tend to eat small snacks during the day?
12. How often do they eat junk/processed/sugary food? (Daily, nearly daily, weekly, less often)
13. Are any of your current service users following a specific diet which requires a specific menu, or ingredient inclusion/exclusion? Can your clients manage this diet?
14. Do your service users take the initiative to go get food from the fridge or pantry to eat as a quick non-cook snack when hungry? What is their level of snack-making skill?
15. Do your service users take the initiative to cook a meal on their own when hungry? What is their level of cooking skill?
16. Are service users mostly allowed or mostly not allowed to cook independently in the kitchen? And is the kitchen accessible for their various needs? Do you recommend changes to the kitchen to make cooking easier? (e.g., Signs, labels, and visuals for easier access)
17. Would you say service users follow hygiene and safety precautions when preparing food and cooking? Are there any practices which are typically lacking?
18. Do your service users have the opportunity to observe other people or yourself during meal planning/food preparation or cooking? What could they gain which is useful from such observation?
19. Do your service users go food shopping independently or accompany you or another supervisor? What could they gain which is useful from such observation and joint experience?
20. If left to their own devices, what type of food do the service users tend to buy? Are you typically happy with their choices? Why?

Now let's talk a little bit more about these type of service users' ideas, attitudes and potential for learning.

21. Does your service users' mood affect their way of eating? What type of comments do the clients pass after eating a snack or meal prepared by themselves?
22. Do service users make different comments after eating a nutritious, healthy snack or meal prepared by themselves?
23. What do you keep in mind as you are planning advice/guidance for your service users related to shopping/storing/preparing and cooking food?
24. Do you talk about planning meals ahead, cooking in bulk or using local and seasonal produce? How do your clients react?
25. When buying and sorting food, do your service users look for expiration dates and any other info on the food labels? Do you talk about these with them? Can you elaborate, please?
26. What would you say are these people's weaknesses and strengths when it comes to cooking?
27. What type of recipes do people with mental illnesses really enjoy trying on their own? Are they generally willing to try out something new?
28. What do you find is the best way to present new information to your service users in a printed manner?

Before concluding, I would like to discuss with you the development of a Healthy eating Guidebook/cookbook to make it more practical for you as a professional working with service users with mental illness.

NOTE: This guidebook/cookbook is for you to use as a teaching/learning resource with your service users. It will serve as a tool to help you as you explain some information or skills to them. You may sometimes also copy pages from the Guidebook/Cookbook to give to the service users so that they can refer to them at home, when shopping etc.

29. Which topics would you expect in such a guidebook/cookbook? (Health, nutrition, shopping, storing, cooking…)
30. Would you want more advanced information for yourself, as well as less advanced for your service users? Or is information at a level suitable for your service users enough?
31. What level of information would be suitable for your service users (Primary, Secondary)?
32. Do you suggest a text + picture-oriented approach or mainly pictures and graphics to make the guidebook/cookbook more comprehensible and engaging?
33. If text is to be used, what language do you think will be more convenient (English or Maltese)?
34. Would you recommend a large or medium, font? Is there a particular font you would recommend?
35. Are there any other book features which would help you in your work advising on healthy eating and cooking?

Thank you for your time and cooperation.

Appendix 2:

Recruitment Letter

for

Organisations.

Appendix 2: Recruitment Letter for Organisations.

Information/Invitation letter for Organisations

Cultivating independence: Developing a guidebook to facilitate healthy eating competencies of adults with mental disorders.

Dear Sir/Madam,

My name is Francesca Camilleri, and I am a student at the University of Malta, reading for a Master's in Teaching and Learning (MTL) in Home Economics and Health and Social Care. I am currently conducting a study for my project-based dissertation titled 'Cultivating independence: Developing a guidebook to facilitate healthy eating competencies of adults with mental disorders'. Professor Suzanne Piscopo is supervising this dissertation. This letter is an invitation to assist in recruiting participants for the study.

In this dissertation, I aim to work with social workers to help improve their special clients' awareness, understanding and practices regarding the necessity for safe and nutritious food, promoting skills so as to achieve a healthy independent living. I plan to collect primary data from professional and well-informed social workers working closely with people with mental illnesses. All participants shall be warranted social workers with a minimum of three years of working experience in the field, and typically working with 30- to 60-year-old people suffering from mental illness.

To gather such information, I plan to conduct semi-structed interviews, elaborating on the following research questions.

Which of the foods that are recommended for adults based on the national dietary guidelines do adults with mental disorders prefer to eat and which of these recommended foods do they seldom eat?

What abilities/skills do adults with mental illness already have and which abilities/skills are perhaps lacking for the adults to be able to plan, buy, store, and cook healthy snacks/meals independently?

These exploratory interviews will be about 1 to 1.5 hours long and are to be carried out at the Social Worker's convenience, either in person or virtually depending on the nature of covid- 19 situation. The interview will be done in private so as to ensure optimum confidentiality of data and is to be carried out in the period August to December of 2022. The interview will help inform development of a Healthy eating guidebook/cookbook to be used as an educational tool by the social workers.

The interviewees have the right to skip any questions or withdraw at any point during the interview. In case of a withdrawal from the study, any data collected up till then will be erased. The interviews will preferably be voice recorded for later transcriptions and phrases may be used for quotations. If the interview is conducted via Zoom, encryption will be employed for the video recording.

Recording and transcriptions will be stored in multiple mediums to keep each resource separate and secure. I intend to keep each resource in a secure place only accessible by me as the sole researcher. Data will be stored on a password-protected drive. Once the research report has been finalised and approved the data will be destroyed. Each respondent's data will remain confidential and no personal information will be recorded. In the final report, names will be replaced by pseudonyms. All data collected will strictly be used for this dissertation only.

The social workers' contribution will help me gain more information on the appropriate material to propose for a Healthy eating guidebook to make it practical and effective enough to promote behavioural change among their service users with mental illness.

Given the above, it would be highly appreciated if you could share the attached Invitation/Information Letter and Consent Form with the Social Workers engaged with your entity/organisation. As already indicated, their participation is on a voluntary basis.

Thank you for your time and consideration. Your assistance in recruiting participants for my study would be very welcome. Should you wish to contact me, or have any questions or concerns, please contact me by email on francesca.camilleri.18@um.edu.mt. You can also opt to contact my Supervisor, Prof Suzanne Piscopo, over the phone at 23402310 or email on suzanne.piscopo@um.edu.mt

Sincerely,

Francesca Camilleri
francesca.camilleri.18@um.edu.mt

Professor Suzanne Piscopo
suzanne.piscopo@um.edu.mt

Tel: 23402310

Appendix 3:

Recruitment Letter

for

Social Workers.

Appendix 3: Recruitment Letter for Social Workers.

Information/Invitation letter for Social Workers

Cultivating independence: Developing a guidebook

to facilitate healthy eating competencies of adults with mental disorders.

Dear Social worker,

My name is Francesca Camilleri, and I am a student at the University of Malta, reading for a Master's in Teaching and Learning (MTL) in Home Economics and Health and Social Care. I am currently conducting a study for my project-based dissertation titled 'Cultivating independence: Developing a Guidebook to facilitate eating competencies of adults with mental disorders.' Suzanne Piscopo is supervising this dissertation. This letter is an invitation to contribute to this study.

In this dissertation, I aim to work with social workers to help improve their special clients', awareness, understanding and practices regarding the necessity for safe and nutritious food, promoting skills as to achieve a healthy independent living. I would like to collect information, ideas and suggestions from professional and well-informed Social Workers working closely with my ultimate target audience, being people with mental illness.

To be eligible to participate in this study one has to be a warranted social worker with a minimum of three years of working experience in the field, typically working with 30-to 60- year-old persons who have a mental illness.
In case you are eligible and volunteer to contribute to this research, you will be invited to participate in a semi-structured interview elaborating on the following research questions.

Which of the foods that are recommended for adults based on the national dietary guidelines do adults with mental disorders prefer to eat and which of these recommended foods do they seldom eat?

What abilities/skills do adults with mental illness already have and which abilities/skills are perhaps lacking for the adults to be able to plan, buy, store, and cook healthy snacks/meals independently?

These exploratory interviews will be about 1 to 1.5 hours long, and are to be carried out at your convenience, either in person or virtually depending on the nature of covid-19 situation. The interview will be done in private so as to ensure optimum confidentiality of data and is to be carried out in the period August to December of 2022. The interview will help inform development of a Healthy eating guidebook to be used as an educational tool by social workers.
As an interviewee you have the right to skip any questions or withdraw at any point during the interview. In case of a withdrawal from the study, any data collected up till

then will be erased. The interview will preferably be voice recorded for later transcriptions and phrases may be used for quotations. If the interview is conducted via Zoom, encryption will be employed for the video recording.
Recording and transcriptions will be stored in multiple mediums to keep each resource separate and secure. I intend to keep each resource in a secure place only accessible by me as the sole researcher. Data will be stored on a password-protected drive. Once the research report has been finalised and approved the data will be destroyed. Each respondent's data will remain confidential and no personal information will be recorded. In the final report, names will be replaced by pseudonyms. All data collected will strictly be used for this dissertation only.

Your contribution to this research will help me gain more information on the appropriate material to propose a Healthy eating guidebook to encourage behavioural change among your clients and assist you when working with adults with mental illness.

Thank you for your time and consideration in reading this Invitation letter. Your participation would be highly appreciated. If you agree to participate, please fill in and send me the attached Consent Form on the email below.

Please note that social workers will be recruited on a first come first selected basis after ensuring that they meet the required criteria. Social workers who respond within the given time frame but are not eventually selected for participation will be thanked personally for their kind offer.

Should you have any questions or concerns about this study, please contact me by email on francesca.camilleri.18@um.edu.mt. You can also opt to contact my Supervisor, Prof Suzanne Piscopo, over the phone at 23402310 or via email on suzanne.piscopo@um.edu.mt

Sincerely,

Francesca Camilleri
francesca.camilleri.18@um.edu.mt

Professor Suzanne Piscopo
suzanne.piscopo@um.edu.mt
Tel: 23402310

Appendix 4:

Permission

from

Richmond Foundation.

Appendix 4: Permission from Richmond Foundation.

RICHMOND

31st August 2022

To whom it may concern,

Re: Approval from Richmond Foundation to Serve as Gate Keeper

I, hereby confirm that Ms Francesca Camilleri, holder of Identity Card No. 0385198M, has been given permission to conduct interviews for her dissertation with Social Workers from Richmond Foundation in part fulfillment of her Master's in Teaching and Learning with Education in Home Economics and Health and Social Care.

Should there be any queries please contact me on the details below.

Sincerely,

Donald Buhagiar
Human Resources Manager

Appendix 5:

Permission

from

MASW.

Appendix 5: Permission from MASW.

MALTESE ASSOCIATION OF SOCIAL WORKERS

03 September 2022

The Maltese Association of Social Workers (MASW) confirms that it can act as a gatekeeper by circulating the recruitment letter with its members for the dissertation titled: *'Cultivating independence: Developing a guidebook to facilitate healthy eating competencies of adults with mental disorders'* being done by Ms Francesca Camilleri.

Once full approval is given to Ms Camilleri by FREC, MASW will be able to share the recruitment letter and consent form with its members.

Appendix 6:

Permission

from

Mount Carmel Hospital.

Appendix 6: Permission from Mount Carmel Hospital.

MENTAL HEALTH MALTA

MINISTRY FOR HEALTH

20th September 2022

To whom it may concern,

Re: Approval

I, hereby confirm that Ms Francesca Camilleri, holder of Identity Card No. 0385198M, has been given permission to conduct interviews for her dissertation with Social Workers from Mt. Carmel Hospital in part fulfillment of her Master's in Teaching and Learning with Education in Home Economics and Health and Social Care. Should there be any queries please contact me on the details below.

Kind Regards,

Miriam Agius

Acting Principal Social Worker

Contact no. 79440134

Appendix 7:

URECA Form

Appendix 7: URECA Form.

L-Università ta' Malta

Research Ethics and Data Protection Form

University of Malta staff, students, or anyone else planning to carry out research under the auspices of the University, must complete this form. The UM may also consider requests for ethics and data protection review by External Applicants.

Ahead of completing this online form, please read carefully the University of Malta Research Code of Practice and the University of Malta Research Ethics Review Procedures. Any breach of the Research Code of Practice or untruthful replies in this form will be considered a serious disciplinary matter. It is advisable to download a full digital version of the form to familiarise yourself with its contents (https://www.um.edu.mt/research/ethics/resources/umdocuments/). You are also advised to refer to the FAQs (https://www.um.edu.mt/research/ethics/faqs).

Part 1: Applicant and Project Details

Applicant Details

Name: Francesca

Surname: Camilleri

Email: francesca.camilleri.18@um.edu.mt

Applicant Status: Student

Please indicate if you form part of a Faculty, Institute, School or Centre: * Faculty of Education

Department: * Department of Health, Physical Education & Consumer Studies

Principal Supervisor's Name: * Professor Suzanne Piscopo

Principal Supervisor's Email: * suzanne.piscopo@um.edu.mt

Co-Supervisor's Name:

Course and Study Unit Code: * EDU 5001 – Research Component B: The Dissertation, in the Master of Teaching and Learning (MTL) Course

Student Number: * 0385198M

Project Details

Title of Research Project: *

Cultivating independence: Developing a guidebook to facilitate healthy eating competencies of adults with mental disorders.

Project description, including research question/statement and method, in brief: *

The aim of this project-based dissertation is to work with social workers to help improve their, and in turn their special clients', awareness, understanding and practices regarding the necessity for safe and nutritious food. This will involve identification of the healthy eating competencies of adults with mental illness and then utilising the data to share information and practical tips with the social workers on responsible food shopping, storage, and cooking skills to stimulate and facilitate healthy independent living of their adult clients with mental illness, whilst improving the psychological conditions of these adults by inspiring self-care. Findings will help me create a teaching and learning tool for the social workers to nurture behaviour change among the adults with mental illness with the goal of easing the challenges of independent living, celebrating the benefits, whilst ensuring more holistic wellbeing.

To reach the intended aims, I will conduct 3 to 4 semi-structured interviews as exploratory groundwork. Then, I will utilise the findings to draft a healthy eating guidebook according to identified needs.

I will be elaborating on the following research questions:

RQ1: Which of the foods that are recommended for adults based on the national dietary guidelines do adults with mental disorders prefer to eat and which of these recommended foods do they seldom eat?

RQ2: What abilities/skills do adults with mental illness already have and which are perhaps lacking in order for the adults to be able to buy, store and cook healthy snacks/meals independently?

RQ3: What type of guidance material (content and design) would be useful for social workers who work with adults with mental illness as they help them learn how to buy, store, and cook healthy snacks/meals independently?

Will project involve collection of primary data from human participants? Yes / Unsure

Explain primary data collection from human participants:

a. Salient participant characteristics (min-max participants, age, sex, other): *

Three to four semi-structured individual interviews will be conducted with social workers, in-person or virtually depending on the nature of the covid-19 situation. All respondents shall be warranted social workers with a minimum of three years of working experience in the field, working with 30- to 60-year-old people suffering from mental illness. The social workers can be either males, or females.

b. How will they be recruited: *

The social workers, as the primary and only participants in the interviews, will be recruited through an invitation letter via intermediaries such as relevant government departments and/or NGOs. The invitation letter will explain the nature of the study, why it is being conducted, what will be expected from them as participants and why their contribution to the study is useful. Participants will be required to express consent on a special form to participate in the study. If a participant eventually decides to opt out from the study, any data recorded up till then will be erased. The social workers will be recruited on a first come first selected basis after ensuring that they meet the required criteria. Social workers who respond within the given time frame but are not eventually selected for participation will be sent a personal note thanking them for their kind offer.

c. What they will be required to do and for how long: *

The respondents will be answering the open-ended questions proposed by the researcher in depth but on a voluntary manner. The interview will be approximately 1 to 1.5 hours long. The interview results will help to decide the knowledge and skills required for these special clients with mental illness to obtain, prepare and store food. That is, data collected will inform the content and design of a Healthy Eating guidebook according to the adults' needs. This guidebook will be intended as a resource for social workers working with people between the ages of 30 to 60 years old suffering from mental illnesses, to help their clients' gain independent living.

d. If inducements/rewards/compensation are offered: *

N/A

e. How participants/society may benefit: *

Findings will help me produce a teaching and learning resource tailor-made especially for social workers working with people suffering from mental illnesses to facilitate independent living and make them more aware and competent in self-care through healthier/safer food choices.

f. If participants are identifiable at any stage of the research: *

The respondents may be identifiable due to face to face/virtual interviews. Respondents' names will be replaced by pseudonyms. I will be recording the interview sessions in audio only or Zoom encrypted manner. All data collected will strictly be used for the purpose of the dissertation only. The interviewees have the right to withdraw or skip any questions at any point during the interview/project. In case of a withdrawal from the study, any data collected will be erased.

g. The manner in which you will manage and store the data: *

The interviews will be voice recorded for later transcription and phrases may be used for quotations. Recording and transcriptions will be stored in multiple mediums to keep each resource separately and securely. All will be stored in a secure place only accessible to the researcher. Data will be stored on a password-protected drive. Once the research report has been finalised and approved the data will be destroyed.

Part 2: Self Assessment and Relevant Details

Human Participants

1. Risk of harm to participants: No / N.A.

2. Physical intervention: No / N.A.

3. Vulnerable participants: Yes / Unsure

Yes. But only with regard to choice of wording in questions to the social workers. As a researcher, during data collection I will be sure to demonstrate sensitivity and respect in choice of words and attitude as I will be recruiting social workers working with clients suffering from various mental illnesses. I will safeguard participants by not asking for any client and social worker identities and not putting undue pressure on the respondents at any point of data collection.

4. Identifiable participants: Yes / Unsure

Yes. A large pool of social workers from Government entities and/or NGOs, such as MASW, Richmond Foundation and Mount Carmel Hospital will be approached to recruit 3 or 4 of them. I will be recording the interview sessions in audio only or zoom encrypted manner. Recordings will later be transcribed. Pseudonyms will be used to hide social workers' identity and each resource will be stored in different mediums. A password protected pendrive will be used and only I will have access to the data. I will not reveal the social workers identity in the final report.

5. Special Categories of Personal Data (SCPD): No / N.A.

6. Human tissue/samples: No / N.A.

7. Withheld info assent/consent: No / N.A.

8. 'opt-out' recruitment: No / N.A.

9. Deception in data generation: No / N.A.

10. Incidental findings: Yes / Unsure

Yes. As a researcher, I might uncover certain gaps in the knowledge of social workers being interviewed related to nutrition and food hygiene. In such cases, once the interview is over, I will guide the social workers to appropriate reference material.

Unpublished secondary data

11. Human: No / N.A.

12. Animal: No / N.A.

13. No written permission: No / N.A.

Animals

14. Live animals, lasting harm: No / N.A.

15. Live animals, harm: No / N.A.

16. Source of dead animals, illegal: No / N.A.

General Considerations

17. Cooperating institution: Yes / Unsure

Yes. I will be contacting Government organisations and NGOs such as MASW, Richmond Foundation and Mount Carmel Hospital to help me recruit social workers. I will be contacting them through an Invitation letter where I will give them an overview on the study, eligible social workers, the kind of participation required, information needed, duration and length of interviews.

18. Risk to researcher/s: No / N.A.

19. Risk to environment: No / N.A.

20. Commercial sensitivity: No / N.A.

Other Potential Risks

21. Other potential risks: No / N.A.

22. Official statement: Do you require an official statement from the F/REC that this submission has abided by the UM's REDP procedures?
Yes / Unsure

Part 3: Submission

Which F/REC are you submitting to? * Faculty of Education

Attachments:

- [x] Information and/or recruitment letter*
- [x] Consent forms (adult participants)*
- [ ] Consent forms for legally responsible parents/guardians, in case of minors and/or adults unable to give consent*
- [ ] Assent forms in case of minors and/or adults unable to give consent*
- [x] Data collection tools (interview questions, questionnaire etc.)
- [ ] Data Management Plan
- [ ] Data controller permission in case of use of unpublished secondary data
- [ ] Licence/permission to use research tools (e.g. constructs/tests)
- [ ] Any permits required for import or export of materials or data
- [x] Letter granting institutional approval for access to participants
- [x] Institutional approval for access to data
- [x] Letter granting institutional approval from person directly responsible for participants
- [x] Other

Please feel free to add a cover note or any remarks to F/REC

Declarations: *

- [x] I hereby confirm having read the University of Malta Research Code of Practice and the University of Malta Research Ethics Review Procedures.
- [x] I hereby confirm that the answers to the questions above reflect the contents of the research proposal and that the information provided above is truthful.
- [x] I hereby give consent to the University Research Ethics Committee to process my personal data for the purpose of evaluating my request, audit and other matters related to this application. I understand that I have a right of access to my personal data and to obtain the rectification, erasure or restriction of processing in accordance with data protection law and in particular the General Data Protection Regulation (EU 2016/679, repealing Directive 95/46/EC) and national legislation that implements and further specifies the relevant provisions of said Regulation.

Applicant Signature: * Francesca Camilleri

Date of Submission: * 26/09/2022

If applicable: Date collection start date 30/07/2022

Administration

REDP Application ID EDUC-2022-00315

Current Status Approved

If a submitted application needs to be amended, it can be withdrawn, edited, and resubmitted, and it will retain the same reference number. There is no need to submit a new application.

Appendix 8:

Consent Form

for

Social Workers.

Appendix 8: Consent form.

Participant's Consent Form

Cultivating independence: Developing a guidebook

to facilitate healthy eating competencies of adults with mental disorders.

I, the undersigned, give my consent to take part in the study being conducted by Francesca Camilleri. This Consent form specifies the terms of my participation in this project-based study.

1. I have been given written and/or verbal information about the purpose of the study. I have had the opportunity to ask questions and any questions that I had were answered fully and to my satisfaction.

2. I also understand that I am free to accept to participate, or to refuse or stop participation at any time without giving any reason and without any penalty. Should I choose to participate, I may choose to decline to answer any questions asked. In the event that I choose to withdraw from the study, any data collected from me will be erased as long as this is technically possible (for example, before it is anonymised or published), unless erasure of data would render impossible or seriously impair achievement of the research objectives, in which case it shall be retained in an anonymised form.

3. I understand that I have been invited to participate in an interview session to contribute to research about people with mental illnesses to help improve their awareness, understanding and practices regarding the necessity for safe, nutritious food, promoting functional skills so as to achieve a healthy independent living. I am aware that the interview session will last approximately 1 to 1.5 hours. I understand that the Interview session will be conducted in a place/manner and at a time that is convenient for me.

4. I understand that my participation in this study does not entail any known or anticipated risks.

5. I understand that there is the following direct benefit: the development of a user-friendly educational guidebook that will assist me as a social worker when working with clients suffering from various mental illnesses.

6. I am aware that the interview may be held online or in-person. If in-person, I understand that audio-recording will be preferred. In case of an online session, I understand the researcher will use Zoom and will activate the Require Encryption for 3rd party endpoints SIP/H-323 function. The researcher will thus video record the session. I have read and understood the above statements and agree to participate in this study.

7. I understand that I can tick below whether I agree that in-person interviews are voice recorded for later transcription.

Mark as preferred

☐ I agree to the interviews being audio-recorded

☐ I do not agree to the interviews being audio-recorded

8. I also understand that the recordings and transcriptions will be stored in multiple mediums to keep each resource separately and securely. These places will only be accessible by the researcher. Data will be stored on a password-protected drive. Once the research report has been finalised and approved, the data will be destroyed.

9. I also understand that all data collected from myself will remain confidential and no personal information will be recorded. In the report, names will be replaced by pseudonyms. All data collected will strictly be used for the dissertation only.

10. I am aware that extracts from my interview may be reproduced in the dissertation, either in anonymous form, or using a pseudonym (a made-up name or code- e.g. respondent A).

11. I understand that, under the General Data Protection Regulation (GDPR) and national legislation, I have the right to access, rectify, and where applicable, ask for the data concerning me to be erased.

12. I have been provided with a copy of the Information/Invitation letter and understand that I will also be given a copy of this Consent form.

13. I am aware that, by marking the first tick-box below, I am asking to review extracts from my interview transcript that the researcher would like to reproduce in

research outputs, before these are published. I am aware that I may ask for changes to be made if I consider these to be necessary.

Mark only if and as applicable

☐ I would like to review extracts of my interview transcript that the researcher would like to reproduce in research outputs before these are published.

☐ I would not like to review extracts of my interview transcript that the researcher would like to reproduce in research outputs before these are published.

Name of participant: _____

Signature: _____ Date: _____

Francesca Camilleri
francesca.camilleri.18@um.edu.mt

Professor Suzanne Piscopo
suzanne.piscopo@um.edu.mt
Tel: 23402310

Appendix 9:

Accepted Proposal Form.

Appendix 9: Accepted Proposal Form.

L-Università ta' Malta
Faculty of Education

Masters in Teaching and Learning
Dissertation Proposal Form

Date	Day	Month	Year
Proposal Number	1☐	2☐	3☐
Proposal Identifier			
Course Years	2021-2023		

1. Name of Applicant:	Francesca Camilleri
1.1 I.D. 0385198M	**1.2** Teaching Area Home Economics (Main) with Health and Social Care (Subsidiary)
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2.5 I confirm that, as Principal Supervisor, I have discussed the proposed research with the student and endorse this M.T.L. dissertation proposal	Signature		

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3.5 I confirm that, as Advisor, I have discussed the proposed research with the student and endorse this M.T.L. dissertation proposal	Signature		
* External Supervisor / Advisor / Co-Supervisor to submit short CV where applicable			

4. Title of Research Study/Project (max.15 words)
Cultivating independence: Developing a guidebook to facilitate healthy eating competencies of adults with mental disorders
4.1 Research Questions (2-3 research questions)
1. Which of the foods that are recommended for adults based on the national dietary guidelines do adults with mental disorders prefer to eat and which of these recommended foods do they seldom eat? 2. What abilities/skills do adults with mental illness already have and which abilities/skills are perhaps lacking in order for the adults to be able to buy, store and cook healthy snacks/meals independently?
4.2 Abstract of the proposed research or project work (approx. 300 words)
In this project-based dissertation, I intend to laise with Social Workers working with adults between 30 to 60 years old suffering from mental illnesses and seeking independent living. The adult Psychiatric Morbidity Survey (APMS) in 2017 found that one in six people suffer from common cerebral issues such as depression and anxiety. Through a population-based study, the World Health Organisation (WHO, 2020) found that approximately 120,000 of Malta's population are living with a mental disorder's which is a quarter of the local population. APMS suggests that dietary interventions may be helpful for individuals encountering mental health challenges. With this in mind, I plan to communicate with professional and well-informed Social Workers to collect as much information as possible on their particular client's awareness, understanding and practices regarding safe and nutritious food, as well as their functioning skills to achieve a healthy, independent living. The aim will be to draft an educational guidebook based primarily on the typical clients' needs to stimulate and facilitate healthy independent living whilst improving the psychological conditions of the adults with mental illness by inspiring self-care. The Transtheoretical model for behavioural change will inspire the approach used in this research. In the first stage, 'precontemplation', one is unaware and unengaged in the issue. In the contemplation stage, one may start to be aware of the issue and self-evaluation; the preparation stage acts as a form of self-liberation as one starts planning how to tackle and arrange the problem; and finally, the fourth stage becomes maintenance, reaching social liberation (Adams & White, 2004). Therefore, by developing a practical learning tool based on their needs, I will be helping to nurture behaviour change among adults with mental illnesses to ease the challenges of independent living, celebrate benefits, and facilitate holistic wellbeing.

5. Keywords (3 – 6 keywords related to the content of dissertation)		
1 Educational Guidebook	2 Healthy Eating Competence	3 Adults
4 Social Workers	5 Mental Illness	6 Independent Living

6. Description of Research Methods to be applied.

6.1 Please indicate the research method that you will use in your dissertation*:

Project-based dissertation developing an educational guidebook informed by exploratory groundwork.

* A non-exhaustive list of possible research methods includes:

Bibliographic Search; Case Study/ies; Curriculum Development/Evaluation; Curriculum Study; Educational Intervention; Extended Literature Review; Focus Group; Individual Interview; Historical Research (involving analyses of secondary and primary historical sources); Philosophical Inquiry; Project-Based Dissertation; Questionnaire; Resource Development/ Evaluation; Text Analysis; or any other methodology relevant to the field of study.

6.2 Will your research involve collection of primary data from human participants?	YES ☑	NO ☐

If YES - Where will the participants come from?

Sector:	Primary ☐	Secondary ☐	Tertiary ☐
Other (please specify)	☑ Social Workers employed by state entities or NGOs		

6.3 If applicable, explain primary data collection from human participants for the different Research Methods chosen:

- Who will be your sample? (Indicate salient characteristics, such as age, gender, nationality, occupation)
- What is the minimum-maximum number of participants?
- How will the participants be recruited? (a brief explanation of how researcher proposes to gain access to potential informants for EACH research method ticked)
- What will participants be required to do?

I plan to conduct exploratory groundwork for the research by conducting one-on-one interviews with warranted Social Workers with a minimum of three years of working experience with mentally ill individuals. I will carry out around three to four interviews with different Social Workers to gain better insights about the different realities as they work with their clients. Social Workers will be recruited through an invitiation letter via intermediaties such as relevant government departments and/or NGOs. Those who volunteer to participate will attend an in-person or online interview at their convenience. Using a schedule with open-ended questions, they will be asked questions about their clients' eating habits, their attitude towards food, food preferences and any noticed change in mood or comments made after eating a nutritious meal/snack prepared by themselves. They will be asked about the adults' food shopping, storage and cooking skills with a focus on hygiene and safety practices. The Social Workers will also be asked about their clients' typically available kitchen workspaces and equipment/supplies and to indicate the mode efficient communication format for the proposed guidebook. All interview data will remain confidential and the interviewees can withdraw at any point during the interview.

6.4 How long is the duration of the data collection process?

3-4 months for interviews. Each interview will last around 1-1.5 hours.

7. Ethical clearance:

Anyone planning to carry out research under the auspices of the University of Malta must complete the Online Form for Ethics and Data Protection review once this proposal has been approved from the MTL Dissertation Board.

For Office Use:

Dissertation Proposal # has been:	
Accepted	X
Accepted subject to minor amendments	☐
Accepted subject to major amendments (to resubmit form)	☐
Rejected	☐
Chairperson (MTL Dissertation Board) 	Date 22 July 2022
Name Dr Stephen Schembri	

Official feedback for student:
Approved