PROJECT OBJECTIVE:

The aim of our project is to leverage Neapolitan cultural traditions as therapeutic support to stimulate and enhance the cognitive faculties of seniors affected by Alzheimer's disease. The factors that are able to stimulate or are at least successful in reducing the cognitive decline of these people include, but aren't limited to, physical and mental exercise, social interaction and sensory stimulation.

We believe that many characteristic traits of Neapolitan culture can be structured and organized in such a way that they can be used as non-pharmacological treatment methods for this psychiatric disorder.

The activities we considered are a reinterpretation of methods that scientific literature has shown to be effective in the treatment and/or prevention of the disorder, including culinary, musical, and visual workshops, cognitive training, and social stimulation.

The use of cultural elements in a therapeutic context aims to:

• Strengthen the sense of belonging and identity;

• Stimulate the retrieval of long-term memories;

• Reduce depressive symptoms and behavioral disorders;

• Improve self-esteem and the perception of personal usefulness, thus enhancing autonomy.

PROJECT CONTEXT AND IMPORTANCE

Aging and dementia are global concerns, with roughly 46.8 million people worldwide estimated to have the illness; the population of people living with dementia is expected to double every two decades to reach 131.5 million by 2050. Alzheimer's disease accounts for 60–80% of dementia cases and is the leading form of dementia.

The clinical management of patients with AD and dementia is a significant public health concern because of the lack of effective treatments for AD at the moment, especially lack of disease-modifying therapies. The research and development of effective nonpharmacological interventions for controlling the symptoms of patients with AD and relieving the heavy burden posed on our society is therefore of great importance.

There is currently no cure for Alzheimer's disease, and there is no way to stop it from getting worse. But there are medications and non-drug interventions that aim to delay the loss of mental abilities, to help people stay independent in everyday life for longer, and to

improve their quality of life. These non-drug interventions include memory and orientation exercises, art therapy, aromatherapy and music therapy, and contact with animals, as well as caregiver training for family members.

ALZHEIMER'S DISEASE

Alzheimer's is a syndrome featuring multiple cognitive deficits resulting from neurodegenerative disorders or traumatic brain injury. The condition is usually progressive and can be fatal. The cause is related to a protein called APP. In those who metabolize this protein, a neurotoxic substance forms and gradually builds up, leading to the death of nerve cells.

The presence of the neurotoxic beta-amyloid protein, which causes Alzheimer's, can be identified through specific tests such as PET scans, MRI, and PET with amyloid tracers.

The main symptom is represented by memory loss, but there are many others, some of them:

- Loss of independence in daily activities
- Language difficulties
- Spatial disorientation
- Temporal disorientation
- Depression
- Sleep disturbances
- Behavioral issues (hallucinations, delusions)
- Personality changes.

COGNITIVE STIMULATION

The project is based on a multisensory approach that integrates music, cuisine, and historical objects, offering familiar stimuli for participants. These workshops activate long-term memories and engage remaining abilities, fostering social interaction and reducing symptoms of disorientation and isolation.

Depending on the patient's needs for improvement or recovery, two types of cognitive stimulation may be used.

1. Cognitive Skills Stimulation: The goal of these techniques is to engage preserved executive functions to help recover those that have deteriorated. Typically, workbooks, apps, and software programs are used.

2. Brain Area Stimulation: The purpose of these methods is to direct changes in brain activity in the areas affected by the disease. Brain stimulation techniques and neurotechnologies are mainly used.

Cognitive stimulation typically refers to a wide range of group activities and discussions, including reminiscence therapy and reality orientation therapy, aiming to enhance the general cognitive and social functioning of the individual.

CST also helps patients with dementia via enhancing certain cognitive areas, including memory, orientation, language comprehension, coping and adaptation skills, facilitating communication, ensuring sustainability, decreasing anxiety and depression, and consequently improving their quality of life.

KEY ELEMENTS OF COGNITIVE STIMULATION

• **Familiarity**: This is the key element. The more familiar the environment where stimulation occurs, or at least the stimuli presented, the more effective the therapy. The more the person has been in contact with these elements, the greater the likelihood of interaction with the surrounding environment, and thus, the opportunity to exercise their cognitive abilities.

• **Support and Communication**: Memory loss, along with the behavioral and cognitive issues associated with this condition, significantly affect the social environment of the affected person. It is essential to give the patient opportunities to interact and build connections with others, both to practice recalling memories and to maintain language fluency, as well as to prevent social skills from deteriorating, which often leads to isolation and, frequently, depression.

• **Stimulation**: Whether directed at modifying brain activity in the most affected areas or enhancing preserved cognitive functions to compensate for those that have deteriorated, it is crucial to encourage the person to interact as much as possible with both their social and physical environment.

APPROACHES FOR COGNITIVE STIMULATION

Cognitive Training

Cognitive training is the first established nonpharmacological intervention that focuses on a particular cognitive function in dementia, e.g., memory, attention, language, or executive functions. It improves dementia-associated cognition by completing some theoretically driven standard tasks to improve or maintain the normal functioning of the targeted cognitive domains as long as possible.

fMRI data correlated well with the neuropsychological and neurobehavioral measures, which supports the notion that multidimensional stimulation targeting cognition, behavior, and motor functioning significantly improved cognitive-behavioural status of patients with AD at least partially by restoring neural functioning. Improved cognitive performance, including memory, attention, and language, was also observed after a culture-specific picture-based cognitive training on patients with early AD.

REALITY ORIENTATION THERAPY

Reality Orientation Therapy (ROT) aims to help patients reorient themselves to their own identity, personal history, and surroundings. Its main goal is to reduce isolation, encouraging social interaction and environmental awareness. Using repetitive verbal, visual, written, and musical stimuli, ROT seeks to reinforce patients' understanding of time, place, and personal history.

ROT interventions focus on:

- **Time Orientation:** reminding patients of the day, month, year, and holidays using simple tools like a daily chalkboard.
- **Space Orientation:** helping patients recall meeting places and paths with the aid of digital clocks, directional signs in the home, and frequent verbal reminders.
- **Self-Orientation:** stimulating memory of personal details with photos, documents, and other mementos.

Stimulation levels are adjusted to the patient's abilities, and there are two complementary approaches: informal ROT and formal ROT. Informal ROT includes daily ongoing orientation support from caregivers or family members, offering frequent reorientation cues. This is achieved through natural, daily interactions rather than set sessions, and involves correcting errors tactfully when patients respond inappropriately.

In contrast, formal ROT involves structured 45-minute sessions in small groups with similar cognitive levels, led by a trained facilitator. This approach reorients patients to

their personal lives, surroundings, and spatial context. Ideal candidates for ROT have mild or mild-to-moderate cognitive impairment, without sensory deficits or behavioural issues that would affect participation in therapy sessions.

REMINISCENCE THERAPY

Reminiscence therapy is a non-specific stimulation treatment that uses all the senses as memory triggers to help individuals with dementia remember events, people, and places from their past lives, verbally or nonverbally, alone or with a group, in order to increase the adaptation to the present time. This is because individuals with dementia often preserve remote memories, so they are usually able to recall events from youth or even childhood, but not from earlier on the same day.

For reminiscence therapy, audiovisual materials are often used to trigger the retrieval of autobiographical memories. Positive memories, specific subjects for sessions, and a general summarization and evaluation for the closing session are highly recommended for reminiscence therapy.

Familiar music seems to be a privileged stimulus to influence emotions and memory in patients with AD or dementia, and musical memory appears to be a relative preservation in AD. Based on this evidence, music-based therapies alone or in combination with visual stimulation have been actively studied in clinical trials and resulted in positive outcomes in cognition, emotion, and behaviour.

EMOTION RECOGNITION REHABILITATION

Emotion-oriented treatment approaches focus on the feelings, values and experiences of people who have Alzheimer’s disease, and aim to improve their quality of life. One example is validation therapy. Here the caregivers use special communication techniques, being sure to create an atmosphere of closeness and care when interacting with the person who has Alzheimer’s. The aim is to make them feel understood, safe and comfortable.

Impairments in the ability to recognize facial affective expressions may lead to social dysfunction and difficulties with interpersonal communication for people with Alzheimer’s disease. This ability enables individuals to adapt to an environment and participate in social activities which is integral for a healthy life and leads to social interactions, social ties, and meaningful relationships.

VALIDATION THERAPY

Validation therapy is a strategy for communicating with people who have dementia that emphasizes empathy and understanding. With validation therapy, the caregiver listens to

the feelings and concerns of the person, regardless of how they are expressing those feelings.

The basic idea behind validation therapy is that people in the late stages of life may have unresolved issues that drive their behaviours and emotions. The way caregivers or family members respond to these behaviours and emotions can either make them worse or help resolve them.

Validation therapy can help a person with dementia feel heard and understood. It acknowledges that challenging behavior is driven by unmet needs. Listening to and engaging with the person exhibiting the behavior can help caregivers understand and meet those needs.

The acceptance of one's reality, experience and personal truths, all of those can alleviate stress and behavioural disturbances. In validation therapy, therapists communicate with dementia patients by identifying and empathising with the meaning behind their behaviour. In other words, the emotional content of patients' speech takes precedence over their spatial or psychological orientation. Tourism could provide relaxing settings to reduce dementia patients' stress, provide contentment, and promote a positive mood.

INDIVIDUALIZED COGNITIVE REHABILITATION

Cognitive rehabilitation refers to an individualized interventional program which addresses specific functional difficulties and sets realistic goals to help patients and their families in daily life. The rehabilitation program focuses mainly on developing compensatory strategies for impairment and improving the individual's performance in daily situations to some extent, rather than on cognitive performance itself, and main caregivers are often involved in the studies as well.

NON-PHARMACOLOGICAL LEVELS OF INTERVENTION

- **Environment:** The constructed, physical surroundings (interior and exterior) where activities of daily living (e.g., eating, bathing, and sleeping) are conducted and where social interaction occurs. It must be designed as familiar and stimulating as possible. Travel exposes dementia patients to a novel environment away from home. This new built environment can allow these tourists to experience new emotions, moods, and other reactions, thereby stimulating brain functions that enable them to process such feelings

- **Montessori's method:** A method to create structured stimulating environments that facilitates self-paced learning and independence. The Montessori method centres on creating structured yet stimulating settings that foster independent learning. In this sense, travelling can provide an unfamiliar environment from which dementia patients can derive cognitive and conative experiences. These situations could allow for the formation of unique memories as well as self-paced learning
- **Music therapy**: Defined by the World Federation of Music Therapy as the professional use of music and its elements as an intervention in medical, educational, and everyday environments with individuals, groups, families, or communities who seek to optimise their quality of life and improve their physical, social, communicative, emotional, intellectual, and spiritual health and well-being. Musical activities positively influence dementia patients' behaviour, cognition, and emotions. Music evokes a sense of pleasure by activating subcortical circuits, the Limbic system, and the emotional reward system. Long-term musical training and related skills acquisition can also stimulate neuroplastic changes, suggesting the power of music in promoting cerebral plasticity.
- **Physical exercise:** Is documented to improve cognition and quality of life via improving cardiovascular fitness and well-being of patients with dementia, which is strongly associated with less brain atrophy and reduced risk of dementia. These interventions focus on different types of activities, such as discussion groups on various topics, preparing meals together, practical things like brushing your teeth, making coffee or writing letters – but also physical activities to improve strength, endurance and balance, as well as art and music.
- **Nutrition**: Some experts believe that eating a healthy diet helps to prevent or slow down Alzheimer's. A Mediterranean diet in particular is supposed to have a positive effect on memory and cognitive abilities. This diet has shown beneficial effects on both cognition and function of patients with prodromal and mild AD. This sort of diet mainly includes a lot of vegetables, fruits, legumes, nuts, olive oil, whole grain products and fish.

WELLNESS TOURISM

Wellness tourism is the powerful intersection of two large and growing multi-trillion-dollar industries: tourism and wellness. Holistic health and prevention are increasingly at the centre of consumer decision-making, and people now expect to continue their healthy lifestyles and wellness routines when they are away from home.

The Global Wellness Institute defines wellness tourism as travel associated with the pursuit of maintaining or enhancing one's personal wellbeing.

Wellness tourism is also helping to preserve cultural traditions in certain parts of the world. It also means natives can introduce these practises to others. This ensures that people are always learning about, and taking an interest in, different cultures.

Like other forms of specialty travel, wellness travel is not a cookie-cutter experience. Every destination has its own distinct flavours in relation to wellness, linked with its local culture, natural assets, foods, etc.

There are numerous opportunities to infuse wellness into all kinds of amenities and services, which can help businesses differentiate, provide more value, and capture higher spending by wellness travellers.

The dimensions of wellness tourism are as follows:

- Medical/cosmetic (e.g. hospital visits clinic appointments)
- Corporeal/physical (e.g. spas, massage yoga)
- Escapism and relaxation (e.g. beach, spa, mountains)
- Hedonistic/experiential (e.g. festival spaces)
- Existential and psychological (e.g. holistic centres focussed on self-development and philosophical contemplation)
- Spiritual (e.g. pilgrimage tourism, New Age events, yoga retreats)
- Community-oriented (e.g. voluntary tourism, charity ventures)

WELNESS TOURISM ACTIVITIES

- SPA: A spa break is a typical form of wellness tourism representing the perfect chance to unwind. Spas are generally peaceful places with low lighting and soft music, providing healthy snacks and comfortable places to relax. With swimming pools and hot tubs, saunas and gym areas as well as treatment rooms, spas have plenty of chances to improve your wellbeing.
- Writing Retreats: A type of 'holiday' where you focus on writing alongside resting and eating well. You are away from the stress and grind of everyday life, focusing on your writing, in a new place that will hopefully offer inspiration and/or more clarity. You'll sleep better, hopefully, and eat well too, meaning you'll feel better all rounds.

- Eating: The main objective of this kind of holydays is to explore the history, the culture and the most known places through various type of local foods, and hopefully come away with a lot more knowledge about the nutrition your body is looking for.

WELLNESS TOURISM AS A POSSIBLE NON-PHARMACOLOGICAL TREATMENT FOR AD

The tourism experience generates cognitive, affective, and behavioural reactions toward a destination and its attributes. Travel can also evoke emotional outcomes such as enjoyment, happiness, and satisfaction to increase consumers' well-being.

Because tourism experiences generate affective, cognitive, conative, and sensorial reactions, the outcomes of these experiences hold promise for individuals with mental and cognitive disorders.

Group or family tours and host–tourist interaction may provide social opportunities that enhance patients' engagement with groups and society. Providing tourism experiences through the five senses which may generate conscious mental processing of information, leading to an "immediate conscious experience" evoking a sense of control and freedom.

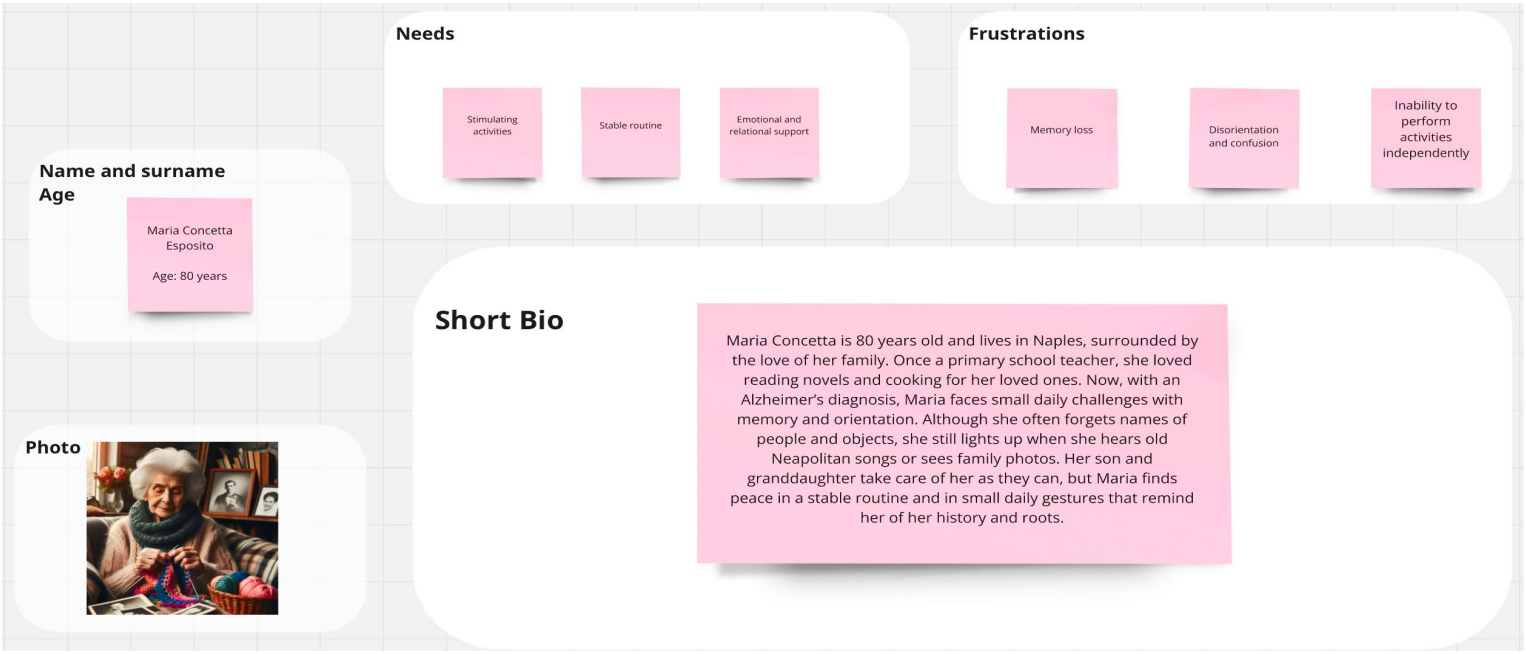
Numerous techniques have been employed in positive psychotherapies, such as naming three good things, savouring, thinking of positive experiences, goal-directed thinking, and gratitude exercises; however, most of these interventions were delivered in consultation rooms, hospitals, or daily life settings. Tourism involves activities outside one's usual environment, heightening the potential for hedonic experiences and happiness. Integrating tourism with positive psychology interventions may provide optimal well-being outcomes.

Tourism participation offers cognitive experiences by stimulating travellers' thoughts, knowledge, and recall. These opportunities can facilitate patients' thinking, concentration, and memory, especially when interacting with caregivers and other tourists. Overall, trip-related outcomes can alter brain function and improve individuals' cognition.

TARGET AUDIENCE

The project primarily targets elderly Neapolitans aged 65 and above who are affected by Alzheimer's, experiencing various levels of cognitive decline. The initiative also includes caregivers and family members, engaging them in activities to facilitate participation and promote social support.

USER PERSONAS



MARKET CONTEXT

The project responds to a growing demand for non-pharmacological therapies supporting seniors with dementia, especially in Europe and the United States. With an aging population and no definitive cure for Alzheimer's, many organizations and families seek alternative solutions to improve patients' quality of life. In Italy, there is increasing interest in treatments that combine cultural and cognitive elements. This project could attract the interest of senior care centers, caregiver associations, and local elder support organizations, as well as public institutions looking to develop structures and policies that support seniors with dementia.

EXPANSION OPPORTUNITIES

Collaborations with Cultural Associations and Local Institutions: Partnerships with Neapolitan cultural associations can extend access to seniors beyond healthcare facilities to more familiar environments like social centers and community spaces.

SUPPORT CENTERS IN NAPLES

The project is supported by dedicated centers such as Caffè Alzheimer and the first public clinic in Campania, which offer occupational therapy, psychological support, and group activities. These centers encourage seniors' participation and provide essential support for caregivers.

POSSIBLE SOLUTIONS

WORKSHOPS AND STIMULATING ACTIVITIES

Music and Memory: Musical workshops feature traditional Neapolitan songs such as *‘O Sole Mio*, encouraging participants to sing and play simple instruments. Music evokes emotional memories and strengthens a sense of belonging, promoting emotional well-being and socialization.

Visual Stimulation and Local Iconography: Using historical postcards of Naples and traditional objects like Tamburelli and Pulcinella figurines, the project aims to revive memories associated with familiar places and childhood experiences. Iconic images of the city, such as Mount Vesuvius and Castel dell ’Ovo, activate long-term memory and strengthen the sense of belonging.

Culinary and Culinary History: Through preparing traditional dishes like pizza and pastiera, culinary workshops offer important sensory and memory stimulation, reviving memories tied to family and community moments. This activity, beyond reinforcing a sense of identity, allows seniors to experience a familiar, interactive environment.

Traditional Neapolitan Recipes: Culture and History through Food

Food is a pillar of Neapolitan culture, with each recipe representing a piece of the history and identity of this land. The following dishes not only nourish the body but also evoke emotions and memories:

Savory Dishes:

ZEPPOLE E PANZAROTTI

Description: Fried dough fritters (zeppole, also known as “pasta cresciuta”) and potato croquettes without mozzarella (panzerotti).

Historical Context: This Neapolitan “street food” is associated with the narrow streets of Naples, eaten hot and standing. The zeppola is also symbolic of the Neapolitan accent, echoing a unique pronunciation style.

PIZZA MARGHERITA

Description: The classic pizza with tomato, mozzarella, and basil.

Historical Context: Created in 1889 in honor of Queen Margherita of Savoy, with colors representing the Italian flag, this pizza has become an icon of Italian cuisine.

PIZZA CON LE SCAROLE

Description: Pizza filled with escarole, olives, and capers, a symbol of Neapolitan holiday cuisine.

Historical Context: Common during festive seasons, this dish highlights the flavors of Campanian tradition.

CASATIELLO

Description: Easter bread enriched with cured meats, cheese, and lard.

Historical Context: Its circular shape symbolizes the crown of thorns, making it an Easter symbol. This ritual bread dates back to ancient Greek practices and is now associated with the holiday.

RAGÙ NAPOLETANO

Description: A slow-cooked meat sauce with tomatoes and vegetables.

Historical Context: Traditionally a Sunday dish, the term “ragù” derives from the French “ragout,” Italianized to “ragutto” during the fascist era.

PARMIGIANA DI MELANZANE

Description: Layers of fried eggplant, tomato, and cheese.

Historical Context: Although eggplants arrived in Italy in the 15th century, the dish only took its current form in the 19th century, becoming a symbol of Neapolitan cuisine.

FRITTATA DI MACCHERONI

Description: Frittata made with leftover pasta mixed with eggs and cheese.

Historical Context: This dish reflects the Neapolitan tradition of avoiding food waste and is perfect for picnics, dating back to times of poverty when nothing was discarded.

Sweet Dishes

PASTIERA NAPOLETANA

Description: An Easter dessert made with wheat, ricotta, and eggs.

Historical Context: This symbol of rebirth is tied to the Easter tradition and was likely created by Benedictine nuns. It represents life and fertility.

BABÀ

Description: A soft dessert soaked in rum.

Historical Context:

Originating from France and Poland, babà became a symbol of Neapolitan desserts, enriched locally with rum.

ZEPPOLE DI SAN GIUSEPPE

Description: Fried pastry with cream and cherries, prepared for Father's Day.

Historical Context:
This dessert dates back to ancient Roman times when the "Liberalia" celebrated grain and wine deities, later integrated into the feast of "***San Giuseppe***".

LIMONATA A COSCE APERTE

Description: A simple, refreshing drink made with water and lemon.

Historical Context: Popular in Naples since the 18th century, this drink reflects the local agricultural and natural resources in Neapolitan culture.

Conclusion

This project combines Neapolitan cultural traditions with therapy for seniors with Alzheimer's, creating an environment of cognitive and social stimulation that preserves cognitive abilities and enhances emotional well-being.