IT TAKES A VILLAGE:

An investigation into the decentralization of neurodiverse & psychiatric care within a small Dutch locality.

see the bigger picture...

connect the dots...

connect the dots...

see the bigger picture...

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"people are meant to be burdens"

".... as in, humans rely on and support one another and it's not a bother, it's our purpose; to love and be loved in return."

- author unknown

(Image of a Tumblr comment, n.d.)

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Fig 1.
Community Hug. Image adapted from "*Brothers and Sisters*" by Illustrator Tommy Parker.

In 2021,

Unicef's *On My Mind European Brief* published statistics on the mental well-being of European child populations. The brief revealed that:

- "9 million adolescents aged 10-19 in Europe lived with a mental disorder...
- 357,457 of these adolescents (girls and boys) were of Dutch nationality...
- These figures are based on disorders including depression, anxiety, bipolar disorder, eating disorders, autism spectrum, schizophrenia, etc."(Unicef, 2021, pp.3-4)

Further to this, according to a recent Trimbos report published in 2023, in the Netherlands alone,

- "1 in 4 children (27.9%) under the age of 18 live with 1 or both parents suffering from mental illness of addiction issues...
- 44% of these children have a parent with 2 or more mental disorders (392,000)...
- 13% of them have a parent with an alcohol or drug disorder (117,000)...
- 7% have a parent with a dual diagnosis: these parents have a mood or anxiety disorder or ADHD as well as an alcohol or drug disorder (59,000)...
- 52% have a parent who has had contact with a care provider working in general health care, mental health care, or addiction services in the past year (466,000)." (para.5)

What does this mean? This is not just a passing trend. This is not a coincidence. This represents the *disabled-and-ageing*, this represents the *ageing-into-disability*, and this represents the hereditary and learned passing down of disability. These are statistics of *epidemic proportions.*

0 INTRODUCTION

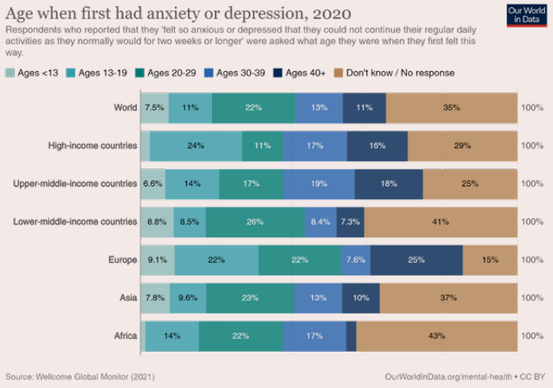
Background

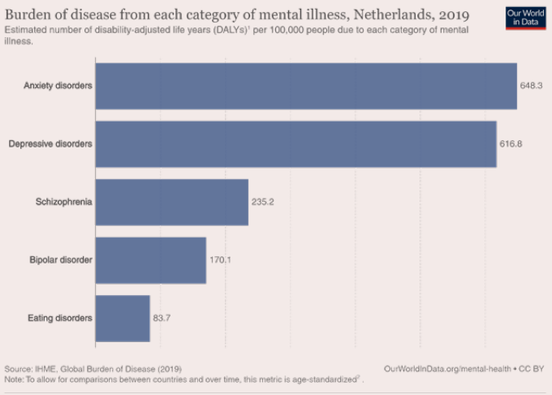
Today's post-pandemic world has forcefully revealed, if anything, the very careful balance within which one's mental wellness exists in relation to the physical body and the environmental qualities extending beyond the skin's surface (Steemers, K., 2021). The presence or absolute lack thereof, of sensory stimulation, access to community, and opportunity to form valuable connection, play a detrimental role in whether one's delicate ecosystem of body-and-mind might flourish or falter (Card et al, 2023). That said, it is important to note here, that while this ecosystem relies on equal maintenance and care of both parts, there does exist an undeniable hierarchy - the mind retains functionality if injury meets the body, but the body falls victim to poor states of mind (Card et al, 2023).

Despite its rise in popularity as a trending topic following several years of pandemic-related lockdown and the tumult of global events pursuant to it, the matter of mental health and the various ways in which it presents amongst people of different ages, ethnicities and incomes, is not a new one. It is believed that approximately 15-20% of the global population is neurodiverse (NCI, 2022, para. 1), inclusive of those born and maturing into their conditions, and those born to parents who themselves face these conditions, in one way or another. Atypical behavioural and mental conditions (BMH) come in various shapes and sizes, present at varying moments in one's life, and tend to differ in severity and duration (Card et al, 2023), proving decidedly difficult to tackle in spite of their prevalence, and especially if caught later on in life (Khan, L., 2016). That said, while the remaining 75-80% of the globe may have eluded a birth-related neurodivergent condition, this is not to say that they stand immune to the risk of ageing into disability - after all, depression, addiction, body dysmorphia, and anxiety disorders are considered the leading mental illnesses in the Netherlands, as of late (Roser & Ortiz-Ospina, 2021). The list goes on. The Centre for Mental Health identifies "adolescence and adult years as the peak age for first onset of adult mental illness. With three-quarters of adults having experienced first symptoms of poor mental health by the age of 24". According to their research "60% of disability experienced by those aged 15-34 years is caused by mental illness"(Centre for Mental Health, 2016, p.1) and there is, on average, a 10-year delay between young people experiencing their first symptoms and receiving help (Khan, L., 2016).

Leading research identifies early teenage and young adult years as the window of opportunity for successful intervention and long-term prevention efforts, stating that "intervening early in the course of many mental illnesses can significantly reduce life-course impairment"(Centre for Mental Health, 2016, p. 2). This may include "school failure, unstable employment, poor family and social functioning, and high divorce rates" (Centre for Mental Health, 2016, p. 1). Regrettably though, despite having identified this target group as integral to general preventive efforts, this 15-34 year-old age range happens to be one of the most under-served and under-protected with regards to mental health support, hence earning the title of a "*missed opportunity*".

> *"Services for teenagers and young adults also create gaps and involve imperfect handovers between child, adolescent and adult systems. This can result in young people losing support at a time when they face the greatest risks in terms of their wellbeing, mental health and risk taking and need the most help. Furthermore, gaps in support at this time mean that services back away from young people at the time that they are most likely proactively to seek help from services."*
> *(Centre for Mental Health, 2016, p.2).*





Figs 2-3.
Global Mental Health Statistics (Roser & Ortiz-Ospina, 2021)

Problem Statement

The aftermath of a post-pandemic world has altered many facets of *life as we know it*, though none so immediately as the matters of mental wellness and the treatment of mental illness. Such matters are by no means new to the common individual, though what is notable is the zeal with which what was once kept fiercely private and protected from stigma-filled scrutiny, has now been thrust into public discourse, spurred on by a shared societal yearning to "talk about it". Approximately 15-20% of the global population (parents and their children alike) are believed to be living with some form of diagnosed neurodivergence (National Cancer Institute, 2022), and these numbers continue to grow with the decline of public stigmatization. Consider the population of "overgrown children/ still-too-young adults" faced with the daunting transition into adulthood, and the risks of early-onset mental health conditions that come with it (Centre for Mental Health, 2016). Consider also, the lack of outreach and accessible support for navigating and addressing these symptoms once you turn 18, and no longer belong to anyone. There exists today, a major discrepancy in care provision for youth suffering from or beginning to experience BMH issues at an age that is too young to properly self-advocate and too old for traditional social service infrastructure (Friedman & Nash-Luckenbach, 2023), but just right to intervene upon if properly recognized. These conditions are a fact of life for many, one which may make *living* in the normative sense rather difficult - made even more difficult when the support and care required for success is unaffordable, unavailable, or otherwise unattainable by a healthcare industry overwhelmed by demand and increasingly long wait periods.

This then raises the question: what if the responsibility for care could be better distributed within one's community, to avoid the risk of affected persons slipping through the cracks? What if it could become integrated within a neighbourhood's daily life, and what if neighbours become available to take on some of the medical practitioners' burdens? What if human connection and the deliberate use of public space could provide additional built-in support for our neurodivergent peers - what would this look like for a small urban city's architecture (i.e., Delft)?

Research Questions

How can architecture facilitate the integration of psychiatric care within neighbourhood infrastructure to:

i) "Capture and reduce the period of illness" and "prevent their recurrence" in young neurodivergent people (16-30 yrs) entering adulthood (Centre for Mental Health, 2016), and

ii) Decentralize and destigmatize mental care?

Sub-questions include:

i) Which of the various mental health conditions would be best served through early intervention care? What degree of care do these conditions demand?

ii) What does the defined target group require in terms of support, therapeutic activities, and facilities to accommodate these?

iii) How can architecture and the built environment be used to shape a more inclusive and healing environment?

According to statistics gathered by the Ministry of Health, Welfare and Sport, "more than **4 out of 10** people in the Netherlands experience` mental health problems at some point in their lives."

(Ministerie van Algemene Zaken, 2022, para. 1)

Fig 4.
Brainstorming "Why Decentralize?" (Own Work)

0.1 THEORETICAL FRAMEWORK

Objective

The objective of this research is to review existing health and wellness-promoting design strategies and guidelines as a foundational basis, and in doing so, to identify and address the gaps or missing research related to the provision of mental health care outside of a medical or clinical setting. Research carried out here will seek to support the notion that the decentralization of psychiatric care from a closed system to a community-integrated intervention, will benefit not only an over-burdened healthcare industry, but patients themselves, their support networks, and their neighbours. With a clear focus on the social aspects of architecture and the built environment, this study will investigate the values and shortcomings of these theories at both the building scale, and that of the urban environment beyond it. *Healing Architecture* will serve as the main theoretical base, upon which several additional theories will be investigated to ensure full coverage of matters of mental healthcare within a built environment.

Healing Architecture

An evidence-based "design model that contends that particular features of the built environment (i.e, lighting and ambience, access to and/or views overlooking green spaces, accessibility and openness) have a positive impact towards promoting patient experience, wellbeing, and recovery" (Simonsen & Duff, 2019, p. 1).

Widely recognized as a "defining feature of innovative and contemporary hospital design" (Simonsen & Duff, 2019, p. 1), this design philosophy has been especially crucial in recent reformative efforts surrounding the public image of psychiatric care, and the design of spaces within which it occurs. Gone are the days of asylums and "architectures of madness"- massive edifices built to confine, and constantly altered according to the whims and changing seasons of psychiatric experimentation (Simonsen, 2017). Modern day health and care-related architecture, if designed successfully, is now done with patient and caregiver wellness at top of mind, though the innate sterility of the typical clinical setting is often counter-intuitive to these efforts. Greater awareness within the field of psychiatric and psychotherapeutic care has enormously shifted focus in favour of designing space by prioritizing patient comfort (Simonsen & Duff, 2019), though this degree of comfort continues to vary according to the setting within which it is applied. A hospital is unable to shed its *hospital*-esque air, especially when compared to the cushioned atmosphere and quiet affluence decorating the private therapist's office. It is here, amid the two extremes of the clinical - comfortable spectrum, that a gap is revealed pertaining to accessible mental health care and the built environment. After all, most would prefer to avoid the stigma and discomfort of hospital treatment (Centre for Mental Health, 2016), but not all are able to afford the luxuries of private practice. So, what solutions lie in-between? How can psychiatric care exist integrated within one's day-to-day (outside of the public and private medical office), and how can design, as a tool, make this space attractive and healing for users?

Inclusive Design

The Commission for Architecture and the Built Environment defines Inclusive Design as a way to "design places through the aim of removing barriers that create undue effort and

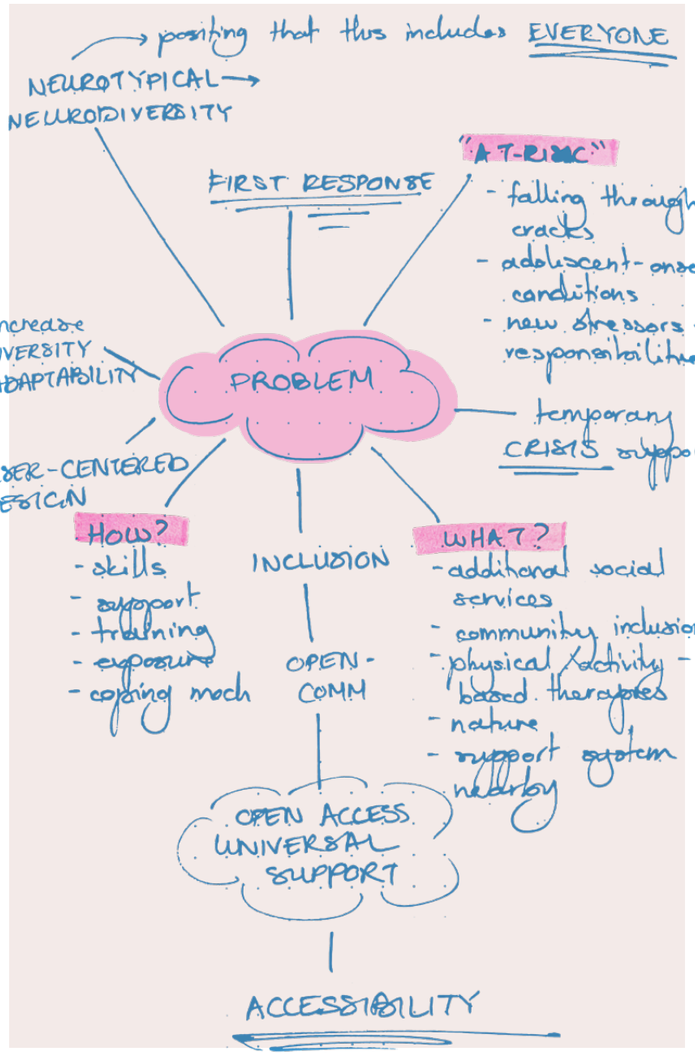


Fig 5.
Brainstorming "The Problem" (Own Work)

"staying healthy in your HOME + COMMUNITY is the way to LIMIT increasing pressures on healthcare services, and thus designing the HOME, NEIGHBOURHOOD, and WORK ENVIRONMENT to improve health & well-being is a new opportunity."
- Steemers, K.

separation, and to enable everyone to participate equally, confidently and independently in everyday activities" (Design Council, 2006, para. 3). Also interchangeably known as Universal Design, architecture and environments that are inclusive are those which acknowledge diversities within the general population, and accommodate it by "offering choice where a single design solution" is unsuitable for all (Design Council, 2006, para. 4).

A most crucial aspect that appears to be completely omitted in the conversation around Healing Architecture and the wellness-promoting design strategies it lists, is this matter of inclusivity - more specifically, the inclusion of physically and/or mentally disabled or lesser-abled persons. This oversight highlights the general overlooking of more than 80 million individuals in Europe alone (approx. 15% of the European population) (Schelings & Elsen, 2017), and indicates a blindspot "compounded by social and attitudinal barriers" (Imrie & Hall, 2001, p.xi) within the architectural industry.

The 5 Ways to Well-Being

A theoretical concept still in its relative nascency, the *5 Ways to Wellbeing* is the result of a 2008 think-tank study performed by the UK government-appointed New Economics Foundation (NEF) (Fletcher, 2020). Tasked with analyzing and synthesizing evidence-based data and cutting-edge psychiatric literature collected through the *2008 Mental Capital and Wellbeing Project*, the aim of the NEF involved raising social awareness and "developing legitimate policy options to address key issues of mental wellness expected to impact UK society over the next 10-20 years" (Aked et al., n.d., p. 5). The outcome of these efforts has since been presented as a guideline of 5 key actions to be adopted into an individual's day-to-day life, to both improve and maintain personal well-being. Well-being itself has been defined as consisting of two main elements: feeling good and functioning well (Aked et al., n.d., p. 5).

While this theorem presents as a rather holistic and socially-minded guideline for how to live one's life happily, it remains highly relevant within architectural perspectives as well, and has in fact become a guiding principle in several architectural practices globally (Fletcher, 2020). The successful design of the built environment is founded upon the architect's desire to provide spaces that positively benefit the human experience within, and as such, it is crucial now, at a time when numbers of mental ill health and personal dissatisfaction are on the rise, to adapt our practices to better serve both mental and physical wellness, in response.

The Neighbourhood Unit

A title coined in the early 1900's by American urban planner and sociologist, Clarence Perry, the *Neighbourhood Unit* concept describes an "early diagrammatic planning model for residential development in metropolitan areas" (Wikimedia, 2023, para. 1). In this model, Perry prescribes a 5-step framework for the ordering and arrangement of public and private buildings composing a suburban block, with the ultimate goal of realizing an urban context in which local facilities are separated by distances no greater than a 5-minute walk ("The 5-minute Walk", 2019).

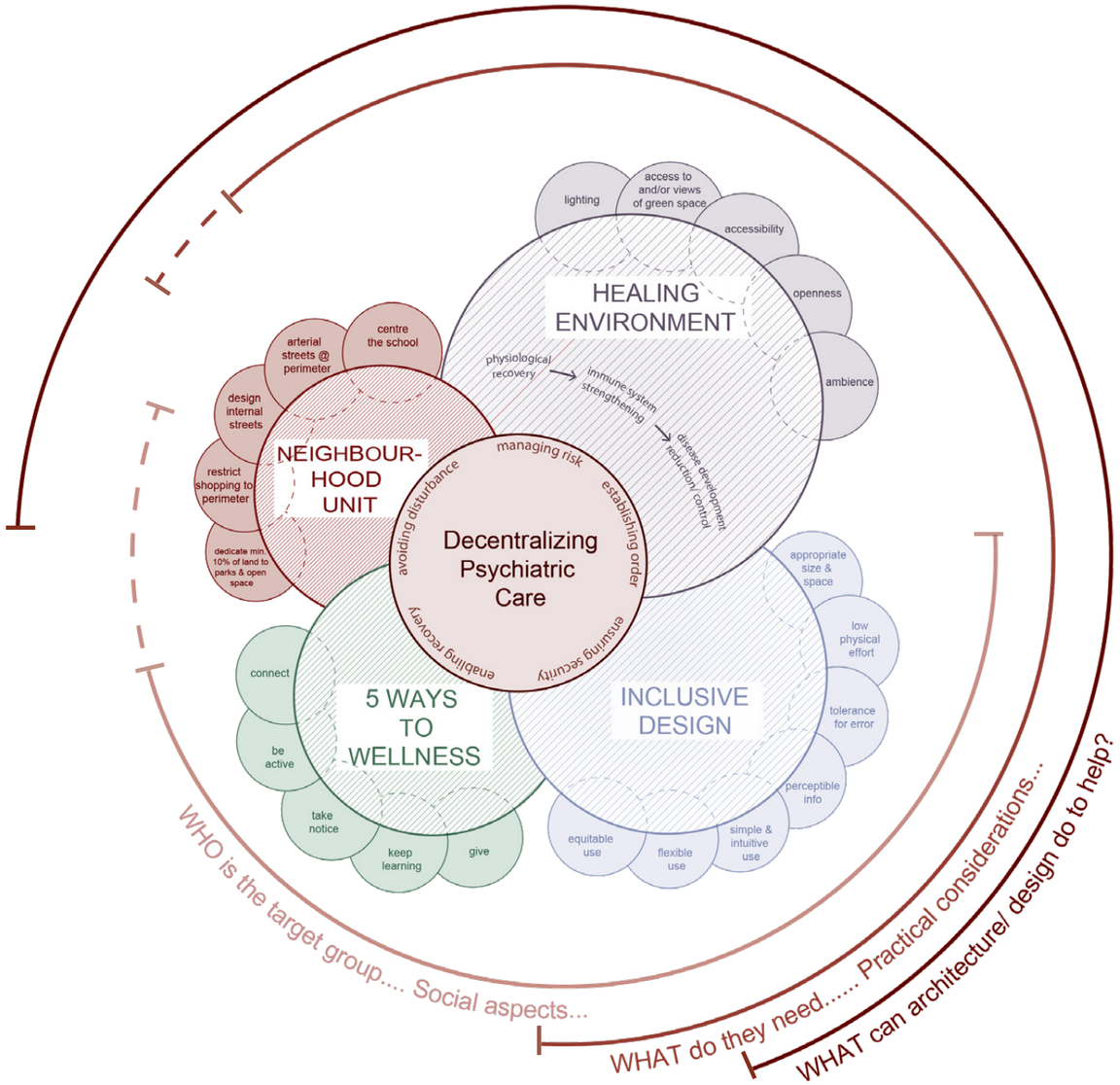


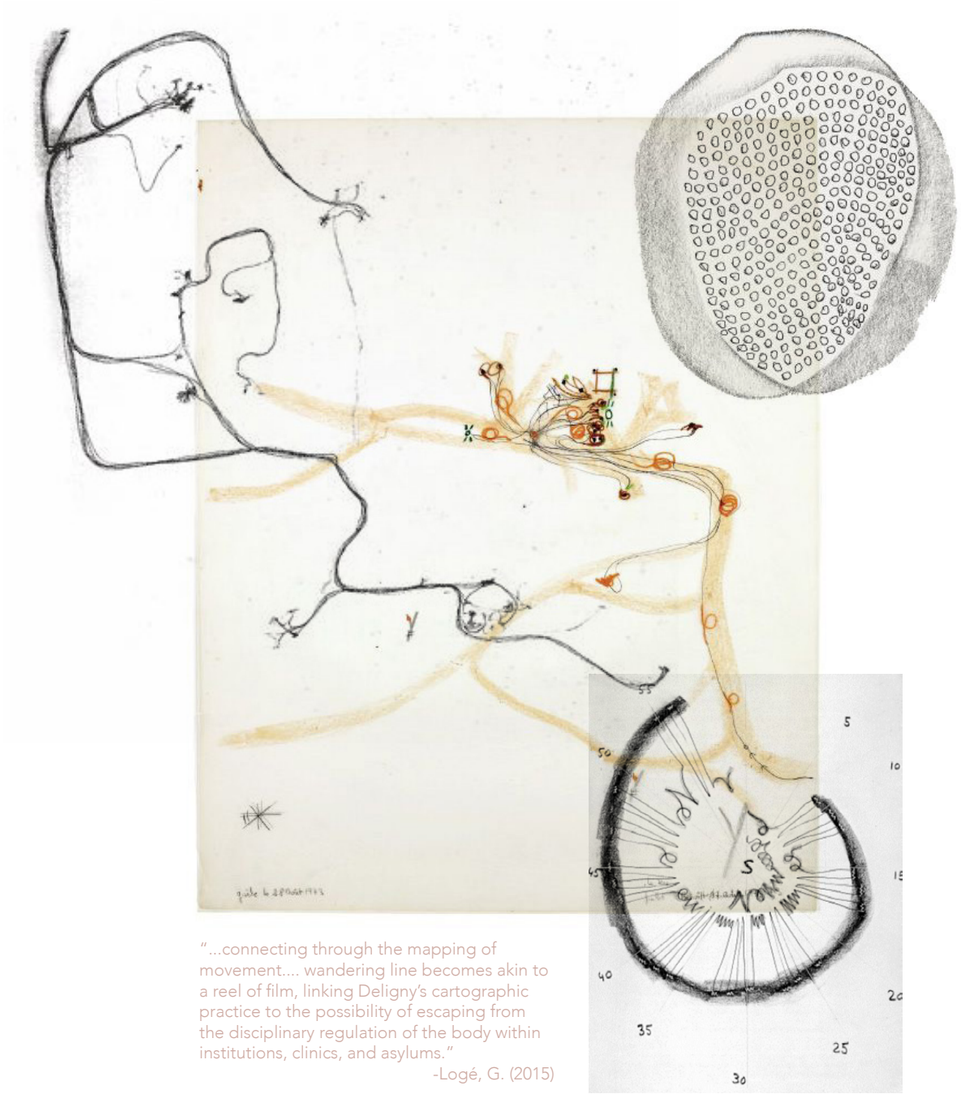
Fig 6.
Theoretical Framework Diagram (Own Work)

Inspired by a time when social codes surrounding vehicular traffic were not yet established and resulting mortality rates ran high, this planning theorem came to be as a solution oriented around the safe pedestrian travel of children within their neighbourhoods. "Perry's intentions were calibrated to the human foot…" (EVStudio, 2020, para.3), and as such, his resulting research saw planning practices adapted, for the first time, to enforce the clear separation of vehicular and pedestrian traffic by shifting major arterial streets towards the neighbourhood's outer boundaries, designing internal streets hierarchically and aesthetically, and placing central to it all, the elementary school (Wikimedia Foundation, 2023). It's continued use remains visible today, in the planning of major urban cities and their adjacent suburbia, though its relative success remains the subject of controversial debate ("The 5-minute Walk", 2019). Nevertheless, in the case of this research, the *Neighbourhood Unit* provides a guiding framework by which a particular context might be analyzed to inform the selection of a project site that would best serve the needs and access of its surrounding community.

Research Scope

Due to the nature of the psychiatric field - the diversity of mental conditions, the variable degrees of severity with which they present (unique to every individual), and the vast number of treatment options available in each case - the matter of the scope of research conducted for this Thesis will have to be crucially calibrated. As the intention for this study involves investigating the validity of decentralizing psychiatric care within a community setting, it is important to first recognize that certain conditions requiring high-intensity or full-time care, and furthermore, conditions exhibiting dangerous or threatening behaviour, will likely not benefit from such an initiative. It should also be noted here, that this research in no way intends to replace the valuable efforts by the current system of in-patient/out-patient care provided by hospitals, clinics, and other dedicated private practices, but instead aims to investigate possible solutions within an urban environment that may assist in lessening the demand on these facilities and healthcare providers. As a result, this brings to the forefront, an important three-pronged approach to increasing access to care - raising social awareness, early intervention, and preventative measures.

To best facilitate the provision of care through early intervention, the scope of this study will zero in on adolescent and young adult populations (aged 16-30), a category which happens to be both the most under-served, and most at risk for the onset of debilitating mental illness (Centre for Mental Health, 2016). This will include both: persons who are born with a disability, and persons who age into disability, but will be limited to those of the neurodivergent population who have the possibility to be independent and self-sufficient, and do not require full-time care in a medical facility. Furthermore, behaviour and mental conditions that fall within the Serious Mental Illness (SMI) category (i.e., schizophrenia, major depressive disorders, and psychotic disorders) will be further excluded from this research ("What is Serious Mental Illness?", *2023*).



"...connecting through the mapping of movement.... wandering line becomes akin to a reel of film, linking Deligny's cartographic practice to the possibility of escaping from the disciplinary regulation of the body within institutions, clinics, and asylums."

-Logé, G. (2015)

Fig 7.
Image compilation of observational sketches by Fernand Deligny. Collected and adapted.

0.2 METHODOLOGY

Research will be conducted through a variety of immersive methods. This will ensure that collected data is comprehensive, current, and inclusive of both observed and lived experience.

Literary Sources

To establish a proper structure and foundation for this research, and make visible any research gaps that may require further inquiry through alternative means (i.e., ethnographic investigation), academic literature will stand as the predominant source of information. There exists already a wealth of information pertaining to subjects of neurodivergences and mental conditions, psychological practice, and architecture & healthy living environments, so the challenge will be in narrowing down the focus to align with the specific research question. A literature review of academic articles, journals, research essays, and books will be performed into the subjects of decentralizing mental health care and community architecture. To further narrow the search, research will be performed according to the following sub-categories:

i) Psychiatry & The Provision of Care
ii) Mental Health Statistics (Global/ Local)
iii) Mental Health & Design

Statistics & Data Collection

Statistics and demographic-related data are crucial to this study, both in identifying the globally under-served target groups for which preventive and open access care would be most beneficial, and in revealing neighbourhoods within a given locality (i.e., Delft) in need of additional welfare services. Additionally, the medical field has an abundance of psychology-related research, and the use of statistical data will elucidate methods for organizing and addressing today's socially predominant ailments, their relative severities, and the realistic possibility of success for care provided outside of a traditional clinical setting.

Collected information will serve to further specify a feasible target group from the broader population, and define the precise requirements they need addressed in a future design.

Architectural Precedents & Case Studies

The research focus will rely on existing architectural precedents of Care and Mental Wellness facilities (i.e., Maggie's Centres, etc.) to help identify design techniques, aesthetics, and spatial and programmatic requirements to best realize the meaning of a "*Community Care Centre*". Special attention will be paid to precedents designed with consideration of interior-exterior relationships, and with the building's surrounding context and access to natural elements in mind. From a practical perspective, this investigation will also include cases of Community Centres and Charitable Organizations serving local

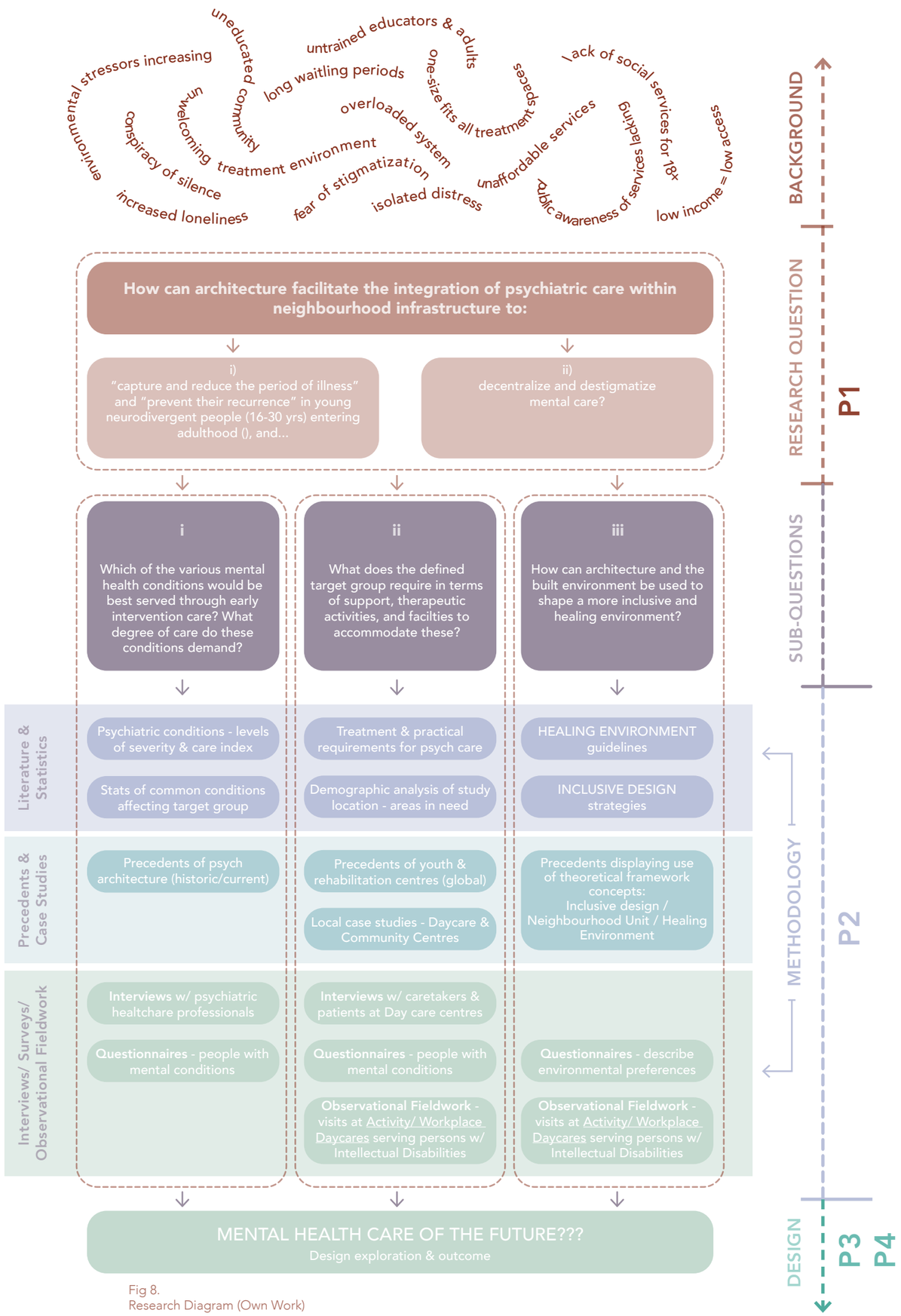


Fig 8.
Research Diagram (Own Work)

Dutch communities today. This will inform as to the already existing facilities, the scale of buildings in relation to context, the ease of access for target group users, etc. It will also provide realistic standards to guide the design of a new building such that it fits and *belongs* in an existing neighbourhood context.

Interviews

Human-centered research is paramount to this study, and considering the mountain of literary resources that already exists, appealing to an individual expert with personal experience and insight into the chosen research topic will assist in verifying the validity of collected information, pinpointing key elements, and revealing nuances that are lost in scientific research. Roughly 10 industry professionals (i.e., doctors, caregivers, trainees, etc.) further supported by as many willing neurodiverse persons and their support networks will be sought out for insight into matters of daily routines, tics and triggers, coping mechanisms, and the therapeutic potentials of space.

Considering the nature of the study is inclusive of persons with mental and intellectual disabilities, it should be noted that interviews will not be possible in all situations, and as a result, certain target group voices may not be explicitly heard throughout this phase. With this in mind, and in an effort to keep the research process as inclusive as possible, compensatory measures will be taken through alternative ethnographic methods (see Fieldwork).

Fieldwork

Fieldwork will cover an exhaustive portion of the research efforts, as exposure to actual behaviours, routines, aids and obstacles experienced by the chosen target group versus the able-bodied members of their community, is crucial to the validity of this research. For the purpose of accessing a relevant research pool, Delft will serve as the focus for fieldwork efforts and will act as a testing ground to which research results may be applied.

Fieldwork will be carried out in agreement with four local Daycare and Youth Activity Centres - a combination of independent initiatives and programs supported by the Ipse de Bruggen or Firma van Buiten foundations. With an investigative focus geared towards social and community edifices serving the Special Needs' community, fieldwork will aim to identify how access to skill-building, stimulating activity, and guided workplace exposure can aid in community building and rehabilitation. Studies will be performed through a variety of techniques, including:

i) Photo journaling & collage of space and its uses
ii) Cartographic mapping of movements & interactions
iii) Rubbings of existing vertical and horizontal textures
iv) Experiential exercises (i.e., wheelchair-bound travel, or with impaired vision)
v) Etc.

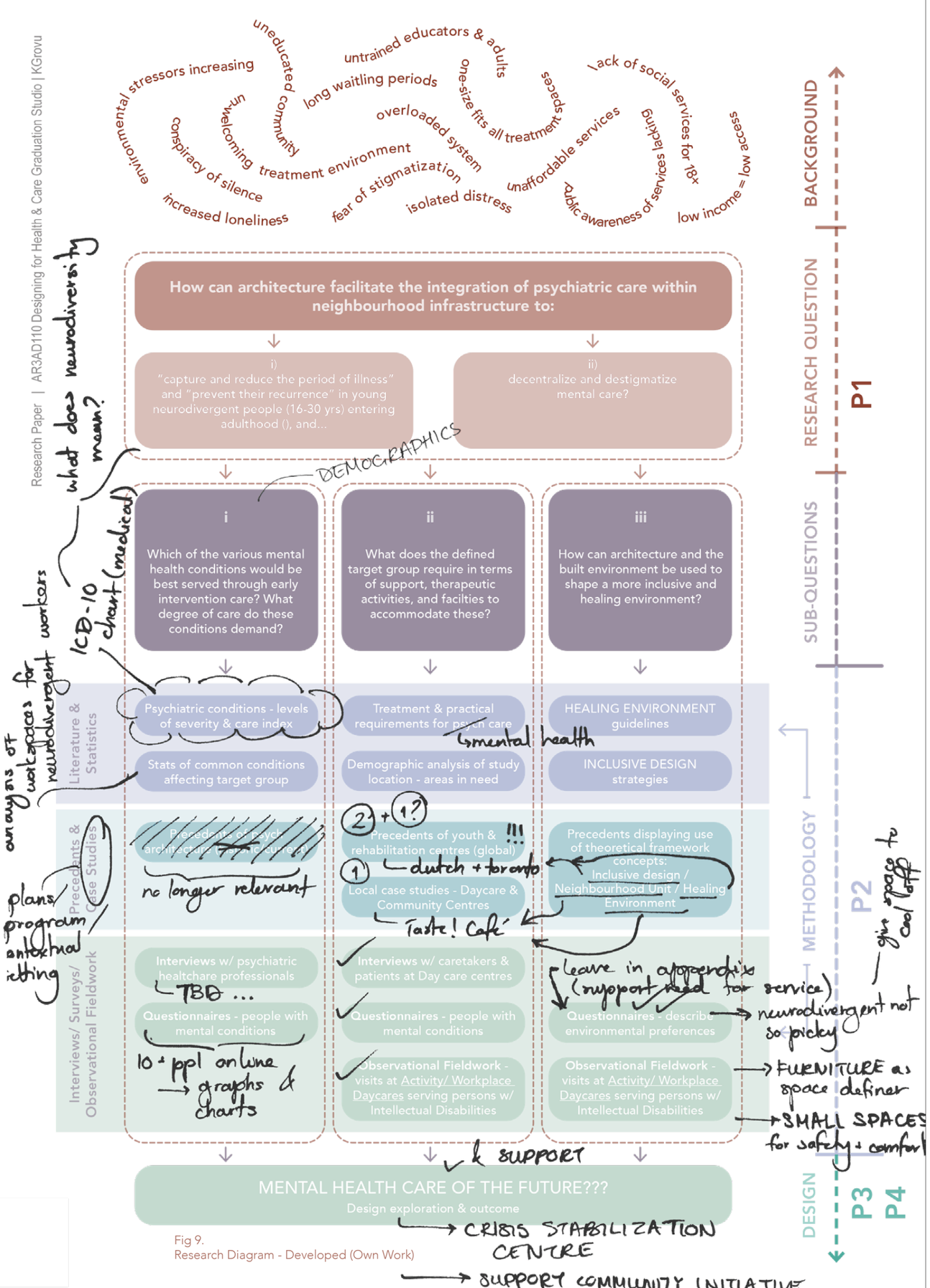


Fig 9.
Research Diagram - Developed (Own Work)

A short summary of the process...

Having structured a robust plan of action towards gaining insight into the prescribed Research Question and its supporting sub-questions, brings us to the question of its execution and the implementation of the various selected research techniques towards data collection and synthesis. The following 3 chapters of this Research Report 3 will aim to summarize for the reader, the extent of the findings gathered throughout the duration of Weeks 1.1 to 2.10. At this point in time the Methodology, as prescribed in Fig. 9 has been applied in near entirety, to answer the questions which remain unchanged.

Chapter 1 will address the variety of Mental, Behavioural and Neurodevelopmental Conditions of which the psychological field consists, and will aim through informed decisive methods to identify those particular conditions that show the greatest potential to benefit from early and community-based intervention. It will also analyze the current state of affairs and highlight key barriers facing help-seeking populations today.

Chapter 2 will present a synthesized analysis of the empirical data collected throughout several weeks of intensive Fieldwork and Human-centered research. A collection of interviews, visualized behavioural and spatial observations, and the analyses of several case studies will inform as to what target groups needs must be met, and how.

Chapter 3 will return to concepts addressed within the original Theoretical Framework, and will delve into architectural theory and literature to seek out the appropriate design solutions to materialize the needs and findings of the previous chapters.

Keywords

Mental Health - Neurodiversity - Emerging Adult - Inclusivity

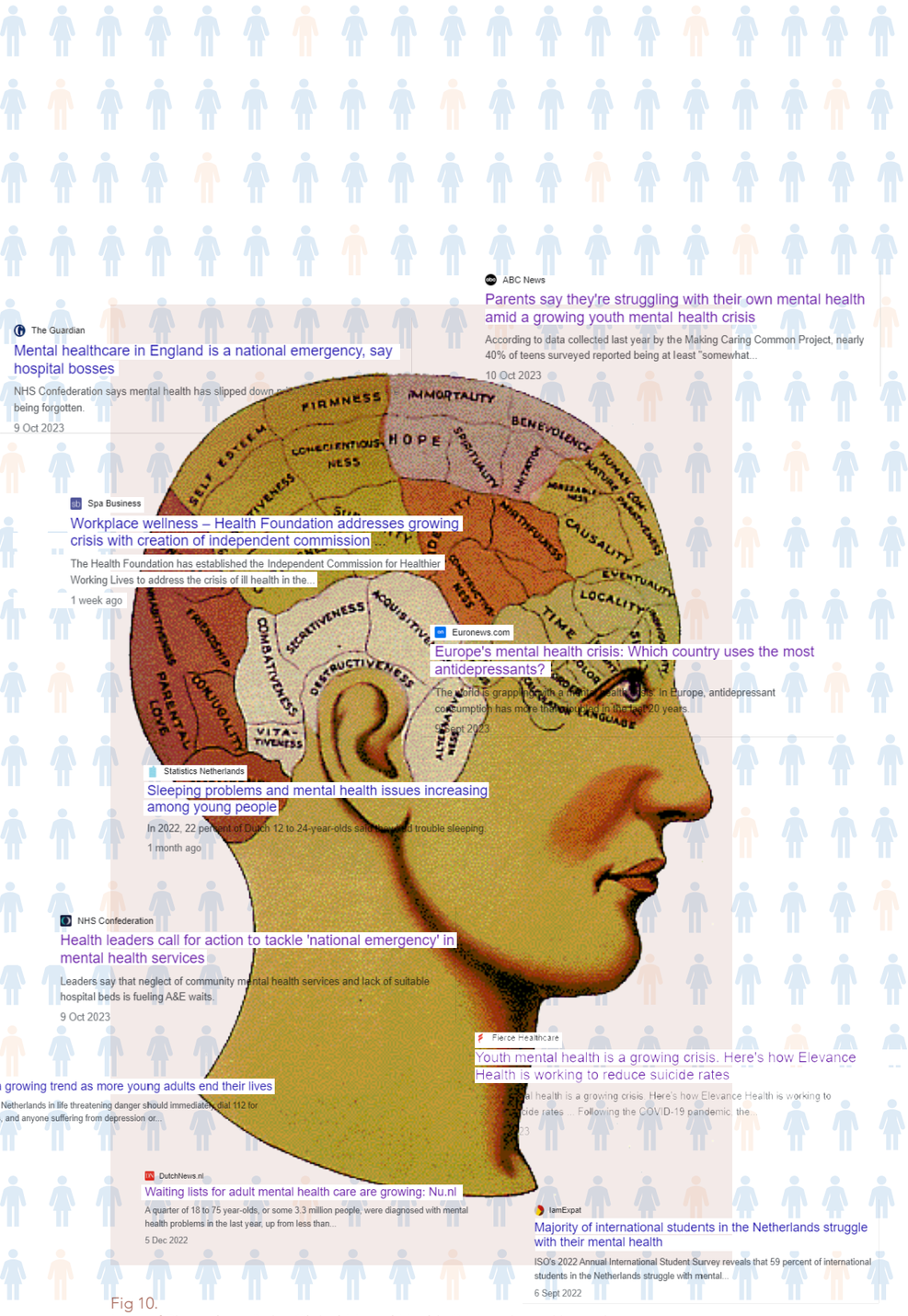


Fig 10.
Map of Phrenology & the Global Mental Health Crisis, adapted by author
(Frenolog, n.d.)

1 DEFINING MENTAL HEALTH & WELLNESS

In case you missed it... We are currently experiencing a "Global Mental Health Crisis!."(CAMH, n.d.)

The World Mental Health Report published in 2022 by the World Health Organization (WHO, 2022), outlines in its 300-page bulk, a sobering and obscure reality of the precarious situation facing global populations today. Defining mental health as both 'intrinsic and instrumental to the lives of all people… equal in importance as one's physical health… and a basic human right' (WHO, 2022, p.12), the report further identifies disorders of the mental variety as being the 'leading cause of years lived on disability (YLDs)', and as being directly related to diminished life expectancy among sufferers of severe conditions (WHO, 2022, p.17), a fact further exacerbated by delayed or deficient treatment. Citing several key threats inclusive of, 'economic downturns, social polarization, public health emergencies, widespread humanitarian emergencies and forced displacement, and a growing climate crisis' (WHO, 2022, p.16) all combined with the commonplace stressors of daily life, the report is but one of many legislative documents seeking to shed light on the 'pervasive, costly, and underserved' circumstances affecting 1 in 8 global citizens (WHO, 2022, p.17).

"*Mental health exists on a complex continuum, with experiences ranging from an optimal state of well-being to debilitating states of great suffering and emotional pain… At any one time, a diverse set of individual, family, community and structural factors may combine to protect or undermine our mental health and shift our position on the mental continuum.*" (WHO, 2022, p.16)

The complexity of the matter exists not in the concept, it exists in the multiplicities within the concept – the fact that decline in mental health can occur to people of all ages, at any point in time, resulting from nothing, and everything, but most simply occurring as a result of one's daily circumstances – be it through exposure to less-than-nourishing circumstances of poverty, isolation, or other insecurity, only further tips the scales towards imbalance, and one's lack of resources or access to help only further distances them from recovery.

So, let's be clear - What is Mental Health/ Mentale Gezondheid?

In simple terms, the study of mental health refers to the fitness and wellness of any one individual's mind and brain, inclusive of personality, emotion, behaviour, and intellect. It is both a physical and cerebral area of study and in the sense tat it is often debated through subjective experience and interpretation. It is equal parts muscle to feeling; equally dependent on the mechanical flow of blood and oxygen as it is upon the presence of such beneficial environmental factors as beauty, comfort and social connection. As self-explanatory a title it may be, the science and practice of mental health has proven to be anything but straightforward. It is crucial for this reason, that a specific definition be chosen for clarity.

While many definitions and variations of the term exist, this report will choose to acknowledge that defined by the 2021 'Definitie Mentale Gezondheid' Delphi Consensus Study – a Public Health Campaign undertaken the by the RIVM and Trimbos Instituut of the Netherlands. A method involving the survey of a panel of experts, this study polled 'researchers, policy makers, professionals (in education, youth field, social domain, mental (health) care), and adolescents and young adults of the target group' (von Ban-Martens, 2022, para.5), with an 87% agreement rate on the decided scientific definition. The definition is as follows:

"Mental health is the way you relate to yourself and to others and how you deal with the challenges of everyday life. At the same time, it is also about how you and others in society experience this." (von Ban-Martens, 2022, para.4)

It is crucial to note here, in addition to the established definition, that while mental health affects all persons universally, the individual experiences of mental health are often unique and variable according to one's positioning within the neurodiverse spectrum. A clear distinction must be made here that neurodiversity and mental health are in fact two distinct and non-interchangeable psychological concepts. While mental health conditions may present in any given individual, at any given point in time, neurodiverse conditions are in fact not classified as mental health conditions and are instead categorized alone as neurodevelopmental conditions. While a mental health condition (a.k.a, illness, disability, disorder, etc.) may present at delayed life stages and result according to external environmental factors, neurodevelopmental conditions (i.e., ASD, ADHD, Tourette's, etc.) refer to the diversity of manners in which different brains may develop from birth and present as 'differences in cognition… all equally normal and valuable' (MediLexicon Intl, n.d., para. 28). That said, this distinction in terms does not deny the probability of overlap, as all persons are equally susceptible to developing mental health conditions regardless of presence or lack thereof of neurodivergence. After all, according to the WHO,

"Risks can manifest themselves at all stages of life, but those that occur during developmentally sensitive periods, especially early childhood, are particularly detrimental." (WHO, 2022, p. xvi)

TABLE 1.
International Classification of Diseases, Category F for Mental, Behavioural and Neurodevelopmental Disorders
(Own Work, adapted from: World Health Organization, n.d.)

ICD-10 Category F: Mental, behavioural, and neurodevelopmental disorders

F0 - F9			F10 - F19			F20 - F25			F30 - F39			F40 - F49			F50 - F59			F60 - F69			F70 - F79			F80 - F89			F90 - F98			F99		
Mental Disorders due to Known Physiological Conditions		Severity	Mental + Behavioural Disorders due to Psychoactive Substance Use		Severity	Schizophrenia, Schizotypal, Delusional, and other Non-mood Psychotic Disorders		Severity	Mood (affective) Disorders		Severity	Anxiety, Dissociative, Stress-Related, Somatoform and other Nonpsychotic Mental Disorders		Severity	Behavioural Syndromes associated w/ Physiological Disturbances + Physical Factors		Severity	Disorders of Adult Personality + Behaviour		Severity	Intellectual Disabilities		Severity	Pervasive and Specific Developmental Disorders		Severity	Behavioural and Emotional Disorders w/ onset usually occurring in Childhood + Adolescence		Severity	Unspecified Mental Disorder		Severity
F 00			F 10	Alcohol-related Disorders	DSM-5 I - III	F 20	Schizophrenia	III	F 30	Manic Episode	III	F 40	Phobic Anxiety Disorders		F 50	Eating Disorders	DSM-5 I - III	F 60	Specific Personality Disorders		F 70	Mild Intellectual Disabilities	DSM-5 I	F 80	Specific Dev Disorders of Speech + Language		F 90	Attention-Deficit Hyperactivity Disorders	DSM-5 I - III	F 99	Mental Disorder, not specified otherwise	
F 01	Vascular Dementia	High	F 11	Opioid-related Disorders	DSM-5 I - III	F 21	Schizotypal Disorder	III	F 31	Bipolar Disorder	I - III	F 41	Other Anxiety Disorders		F 51	Sleep Disorders not due to a Substance or known Physiological condition	DSM-5 I - II	F 61			F 71	Moderate Intellectual Disabilities	DSM-5 III	F 81	Specific Dev Disorders of Scholastic Skills		F 91	Conduct Disorders				
F 02	Dementia in other diseases…		F 12	Cannabis-related Disorders	DSM-5 I - III	F 22	Delusional Disorders	III	F 32	Major Depressive Disorder, SINGLE episode	DSM-5 I - III	F 42	Obsessive-Compulsive Disorders		F 52	Sexual Dysfunction not due to a Substance or known Physiological Condition		F 62			F 72	Severe Intellectual Disabilities	DSM-5 III	F 82	Specific Dev Disorder of Motor Function		F 92					
F 03	Unspecified Dementia		F 13	Sedative, Hypnotic, or Anxiolytic related Disorders	DSM-5 I - III	F 23	Brief Psychotic Disorder	III	F 33	Major Depressive Disorder, RECURRENT	DSM-5 I - III	F 43	Reaction to Severe Stress, and Adjustment Disorders		F 53	Mental and Behavioural Disorders associated with the Puerperium, not elsewhere classified		F 63	Impulse Disorders		F 73	Profound Intellectual Disabilities	DSM-5 III	F 83			F 93	Emotional Disorders w/ Onset Specific to Childhood				
F 04	Amnestic disorder due to known Physiological Condition		F 14	Cocaine-related Disorders	DSM-5 I - III	F 24	Shared Psychotic Disorder	DSM-5 III	F 34	Persistent Mood (Affective) Disorders	III	F 44	Dissociative and Conversion Disorders		F 54	Psychological and Behavioural Factors associated w/ Disorders or Diseases classified elsewhere		F 64	Gender Identity Disorders		F 74			F 84	Pervasive Dev Disorders		F 94	Disorders of Social Functioning w/ Onset Specific to Childhood + Adolescence				
F 05	Delirium due to known Physiological Condition		F 15	Other Stimulant-related Disorders		F 25	Schizoaffective Disorders	III	F 35			F 45	Somatoform Disorders		F 55	Abuse of Non-Psychotic Substances		F 65	Paraphilias		F 75			F 85			F 95					
F 06	Other Mental Disorders due to known Physiological Condition		F 16	Hallucinogenic-related disorders	DSM-5 I - III	F 26			F 36			F 46			F 56			F 66	Other Sexual Disorders		F 76			F 86			F 96	Tic Disorder				
F 07	Personality and Behavioural Disorders due to known Physiological Conditions		F 17	Nicotine Dependence	DSM-5 I	F 27			F 37			F 47			F 57			F 67			F 77			F 87			F 97					
F 08			F 18	Inhalant-related Disorders		F 28	Other Psychotic Disorder NOT due to a Substance/ Physiological Condition		F 38			F 48	Other NonPsychotic Mental Disorders		F 58			F 68	Other Disorders of Adult Personality and Behaviour		F 78	Other Intellectual Disabilities		F 88	Other Disorders of Psychological Development		F 98	Other Behavioural + Emotional Disorders w/ Onset usually occuring in Childhood + Adolescence				
F 09	Unspecified Mental Disorder due to known Physiological Condition		F 19	Other Psychoactive Substance-related Disorders		F 29	Unspecified Psychosis NOT due to a Substance/ Known Physiological Condition	III	F 39	Unspecified Mood (Affective) Disorder	III	F 49			F 59	Unspecified Behavioural Syndromes associated w/ Physiological Disturbances and Physical Factors		F 69	Unspecified Disorder of Adult Personality and Behaviour		F 79	Unspecified Intellectual Disabilities		F 89	Unspecified Disorder of Psychological Development							

Defining the Neurotypical

A term used to designate a type of brain and behavioural functioning that is considered typical within one's culture and setting, gauged according to an individual's ability to 'learn skills and reach developmental milestones around the same time as their peers' (MediLexicon Intl, n.d., para.1).

It should be noted that there exists much debate around use of this terminology as it presupposes the 'abnormality' or 'a-typicality' of those excluded from the designation (Princing, 2022, para.5). Neurotypical is considered a subjective and non-inert title, one which does not protect or prevent against the possibility of future mental disorder development.

Defining Neurodiversity

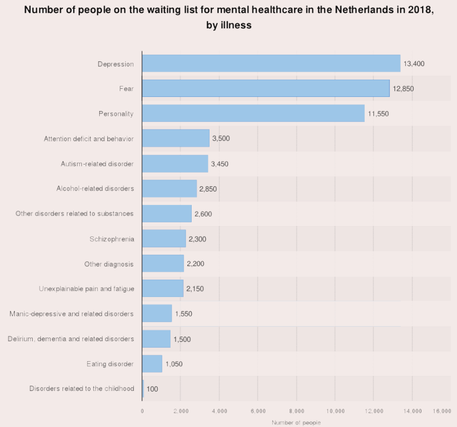
A term that 'describes the variation in the human experience of the world, in school, at work, and through social relationships (NCI, n.d., para.1). Neurodiversity refers to the 'various ways that people think and behave outside of the expected norms of a given culture and setting' (MediLexicon Intl, n.d., para.12), which oftentimes present as discernible hypo- or hyper-sensitivities to sensory aspects of one's environment. Currently recognized examples of neurodivergent diagnoses include ADHD, Autism (ASD), Tourette's Syndrome, and various learning disabilities (MediLexicon Intl, n.d., para. 14). On a global scale, "an estimated 15-20% of the world's population exhibits some form of neurodivergence" (NCI, n.d., para.1).

Defining the Overlap

Table 1: The International Classification of Diseases 10th Ed. for Mental Disorders outlines the extensive list of medically recognized mental, behavioural, and neurodevelopmental disorders into nearly 100 overarching categories, organized according to types of disturbance. It is not the intention of this research to review the categorization in further depth, but instead to employ this tool as a means of narrowing the scope to such conditions that may benefit from early intervention and informal preventive treatment through decentralized public or rather, community services. Excluded from consideration are conditions characterized by severe and aggressive behaviours, and those with high-care indexes or live-in requirements.

Defining our 'At-risk Group'

Recent findings have made abundantly clear that mentally detrimental 'risks are manifested at any and all stages of life' (Centre for Mental Health, 2016), and that declining mental health is non-discriminatory, though it should be noted that certain key demographics face an unfair disadvantage in matters of preserving psychological resilience. According to Ruth Peetom, Chairwoman of the Regional Health Board for Mental Health Services in NL, the greatest rise in reported and diagnosable conditions have been observed in student and young adult populations, followed closely by those who are single, unemployed, low-income, and/or disabled (van Beest, 2022).
That said, increasingly, 'adolescent and young adult years are considered a peak age for the first onset of adult mental illness… Diagnosable conditions which occur at this age produce high levels of enduring impairment which can snowball over time and increase the odds of suffering life course disadvantages - this includes school failure, unstable employment, poor family and social functioning' (Centre for Mental Health, 2016). While the at-risk pool is immense, it appears safe to argue that all efforts dedicated towards curbing these statistics are best invested in preventing decline in early adult years. As such this age group will remain the focus of this research paper.



Figs 11-12.
Standard Mental Health Waitlists - Netherlands. (Adapted from Statista, 2023)

So, what's the Problem, really?

The reality is there isn't just one side to the problem. It's a multi-faceted dilemma requiring that a multi-pronged approach be applied to its resolution. There is hope in that the first step towards public recognizance have been established, the past 20 years having witnessed leaps and bounds towards the dismantling of stigma culture, and the general social acceptance of mental health practices and treatments (World Mental Health Report, 2022). The challenge now has to do with addressing and applying this knowledge towards establishing an accessible, functioning, and health-promoting infrastructure; something which does not quite exist today. Various aspects must be taken into account, considering that…

... it's a Developmental Problem

Consider the current state of affairs (global and in the Netherlands), in which we see an immense burden of care assigned to an overextended healthcare industry, resulting in numbers of up to 80,000 treatment-seekers (yearly) enduring waiting periods of up to 4 months or more, to simply access first-line care (Prudon, 2023). For the unlucky 11,000 patients seeking treatment for more complex issues, the wait extends beyond this, according to the Dutch Court of Audit's report No Place for Big Problems (Algemene Rekenkamer, 2020). It has become abundantly clear in recent years that the time for discussing treatment is officially out of reach, and that the future of mental health care lies in prevention, or perhaps less naively, in early intervention (Trimbos Instituut, 2023). This shift in mindset has shed light on the commonly overlooked young adult demographic and has revealed with it, a slight window of opportunity for positive outcomes relating to intervention efforts aimed at 'containing and reducing periods of illness during adolescence' and 'preventing their recurrence' in the ensuing near- to long-term (Centre for Mental Health, 2018).
International research cited by the Trimbos Instituut 'shows that 75% of psychological complaints begin before the age of 24 and 50% before the age of 14', while the Centre for Medical Health adds that '60% of all disability experienced by those aged 15-34 is in fact caused by mental illness,' and that if left untreated, evidence suggests a high level of persistence into the adult years for around 50% of affected men, and 67% of young women (Centre for Mental Health, 2018, p.1). Persistent issues may include the further development of specific conditions, along with greater susceptibility towards substance use, sleep problems, depressive disorders and, in some cases, suicidality (Trimbos Instituut, 2023). Herein lies the problem of a lacking infrastructure which has permitted the continued 'falling through the cracks' of ailing adolescents, as despite its prevalence, evidence suggests that the majority of teens and young adults are avoidant in accessing help, instead waiting up to '10 years after initial onset of symptoms' (Centre for Mental Health, 2018, p.2) to seek treatment for conditions which have since cemented through maturity. What may once have been curable, becomes increasingly injurious with more time elapsed. As much has been proven over the course of various independent studies:

"Extensive research… indicated that young people (12-35 years-old) who are struggling with experiences like hearing voices or feeling paranoid are at high risk of developing psychosis over 2-3 years. Our research indicated that by identifying… and intervening early… it is possible to reduce the onset of psychotic disorders by 60%..." (NIHR, n.d., para.1)

"Depressive disorders and… anxiety disorders often have their onset in adolescence and young adulthood, with 75% of anxiety disorders starting before age 21 and 50% of major depressive disorder starting before age 32. (Waumans, 2022, p. 9)

"Reports of self-harm were highest for young ppl of both sexes in the 16-24 age group ranging from 9% disclosure in face-to-face responses, and 12% in self-completed responses." (Centre for Mental Health, 2022, p.3)

`"Non-specific eating disorders and anorexia almost always start in teenage years and are most commonly identified in young people between the ages of 16 and 24 years. Bulimia starts slightly later." (Centre for Mental Health, 2022,p.5)

Adolescence/young adulthood marks a newly autonomous period of self-discovery, busied with 'establishing relationships, educating oneself on future professional life, and developing personality traits that set the tone for adulthood' (Waumans, 2022, p.11). Though, this autonomy, prematurely extended into social policy-making, has materialized as 'gaps in support and imperfect handovers between child, adolescent and adult systems', effectively removing a young person's invisible support system when they are most unstable and at risk, and when they are least likely to seek out services of their own volition (Centre for mental Health, 2018, p.2). There is a distinct and notable problem in how we are addressing our youth populations, and according to Waumans, the consequences arising from delayed treatment are serious. 'Treatment gap and… delays result in a longer duration of untreated illness, which is associated with multiple adverse consequences, including [among others] a higher risk to develop comorbidity, a limited response to medication, and a higher risk of unfavourable outcome' (Waumans, 2022, p.13).

... it's a Systemic Problem

Despite the value in recognising preventive actions and the long-term benefits they carry towards lessening loads on over-burdened healthcare sectors, such efforts hold little reformative potential without also addressing problem areas within the regulatory framework of existing provision-of-care schemes. It's worth acknowledging the various initiatives launched by the Dutch Mental Health Sector and Cabinet under the 2017 Mental Healthcare Waiting Times Action Plan (Prudon, 2023) as a means of studying and combatting waitlist structures, though recent years have only further proven that 'despite these initiatives, waiting times have not decreased' (Prudon, 2023). In fact, insurmountable waiting periods have since become an all-too familiar phenomenon for seekers of mental health support, rising steadily to the point that in 2021, Chairwoman Peetoom publicly declared a critical point from which the 'GGZ was no longer capable of eliminating or resolving the matter independently,' and that waitlists would remain a fact of life (Nu.nl, 2021). According to an investigation completed by the Netherlands Court of Audit aimed at identifying their fundamental causes, 3 key factors were identified. To quote from their findings, in brief:

- → *"Financial incentives make it more attractive for care providers to concentrate on patients with milder symptoms.*
- → *Patients with severe care needs are referred to multidisciplinary mental healthcare institutions. Such integrated institutions suffer from capacity problems, including staff shortages.*
- → *It is difficult to arrange suitable aftercare for patients who are discharged. As a result, they occupy beds that should be released for new patients. "(Algemene Rekenkamer, 2020)*

Literature investigating the long-term effects of these waitlist delays are plentiful and unanimous in their conclusions that ensuing consequences are damaging, at both individual and collective scales.

"Because the factors determining mental health are multisectoral, interventions to promote and protect mental health should also be delivered across multiple sectors. And when it comes to providing care, a multisectoral approach is similarly needed because people with mental health conditions often require services and support that extend beyond clinical treatment." (WHO, 2022, p.16)

Patients and support seekers, more aware of their issues today than ever before, face daily insecurities in their search for treatment, as staffing shortages, insufficient bed space, and wait times of the current system could mean a variety of discouraging outcomes, ranging from receiving insufficient or unspecialized care, being sent away due to lack of capacity (NL Times, 2021), or worst case, facing 'encounters with law enforcement during a most vulnerable time (Parker & Sell, 2023, para.1). As a result, the WHO Report describes a disquieting trend in which most 'people will often choose to suffer mental stress without relief rather than risk the discrimination and ostracization that comes with accessing mental health services' (WHO, 2022, p.17). Issues are then only further compounded within the months-long interval preceding care, as what may have originally presented as a treatable burn-out can quickly spiral into a severe and debilitating depression (Rolf, 2020) now demanding a lengthier, 'more intensive and expensive care' (Algemene Rekenkamer, 2020, p.4). From a societal and economic perspective, these waiting periods prove incredibly costly in 'productivity losses and indirect costs' (WHO, 2022, p.17), and in the greater probability of job loss among those suffering years lived with disability. According to a study by R. Prudon, 'every additional month on a waiting list… causes 2% of patients to lose their job and not return to work', a trend which is especially impactful upon 'populations with lower education levels or migrant backgrounds' (Prudon, 2023). Job insecurity is rooted within the correlation between treatment delay and the exacerbation of patient conditions; as an individual's decline in mental wellbeing and resilience is allowed to progress, it may manifest physically as a 'deterioration of health and growing distance to the labour market' (Prudon, 2023). Prudon predicts that waitlist reduction by even a single month through a re-routed focus on prevention, could spare approximately 1,600 jobs lost and 'yield more than € 300 million per year in savings' (Prudon, 2023) – admittedly, a rather significant amount.

... it's a Social /Attitudinal Problem

"The government must improve mental health care, but as a society we must also learn to deal with all these problems' Peetoom believes. 'We need to become more resilient and discuss mental health problems at an early stage in school." (van Beest, 2022, para.13)

From a social perspective, many beneficial advances have been made within the mental health sphere, starting first and foremost with the general awareness and acceptance of wellness promoting practices observed in recent years – the fact that dialogues surrounding mental well-being are being had on inter-personal and legislative levels alike, and that global populations are willingly seeking out help in unprecedented numbers. Though despite these advances, the unfortunate fact remains that most people, but especially young adult populations raised within this culture of awareness continue to suffer the restrictions of a sub-consciously stigma-driven subculture. It remains an unfortunate, although indisputable fact, that although the services exist and are readily available, 'most people with diagnosed mental health conditions opt to go completely untreated' (WHO, 2022, p.17). In an attempt to shed some light on this phenomenon, a qualitative study undertaken by the Centre for Mental Health amongst a young adult focus group found that 'young people generally talked about a "conspiracy of silence" which locked them into isolated distress searching among a maze of variable sources… experiencing high levels of stigma and wanting more open dialogue with, and less negative judgement from friends, educational staff, and professionals' (Centre for Mental Health, 2018, p.3). Further scientific studies have been conducted into related matters of 'help-seeking patterns of behaviour', and several hindrances were revealed, including:

1. *"Mental health illiteracy (i.e. a lack of knowledge about mental illnesses and their treatment),*
2. *Attitudinal barriers (e.g., the wish to solve problems alone, stigma or negative beliefs towards treatment),*
3. *Hampering coping styles,*
4. *Organisational barriers (i.e., financial concerns), and*
5. *Patient's social networks."*
(Waumans, 2022, p.13)

It appears that in spite of the perceived relevance of the matter as a 'hot topic', helpful dialogue among young populations is slow to occur without proper instruction as to the mechanisms of determining what's wrong, validating those needs, and practicing how to formulate these conclusions into an audible request for help. For young people especially, busy with navigating 'feelings of in-betweenness' (Munsey, 2006) in their new and uncharted autonomy, it has been found that valuable comfort and confidence is gained from the presence of guiding 'facilitators including positive previous experiences, support or encouragement from others, and trust in mental health care professionals' (Waumans, 2022, p.14).

The Trimbos Instituut, in their *Youth Mental Health Knowledge Agenda*, predicts a shift in the field and practice of psychiatry, to be geared towards developing 'shorter, lighter, and more accessible approaches', warning that 'we must prevent young people from unnecessarily receiving excessive care. It is therefore important to think about how we give children and young people more time, space, and tailor-made solutions when growing up: at home, at school, in their spare time, in neighbourhood facilities, and in other forms of support and care" (Trimbos-Instituut, 2023, para.11). Recommendations include taking a step back from the individual and their immediate needs to instead properly analyze the environment and social structures which may act effectively towards buffering against the stressors aimed at young people and children (Trimbos-Instituut, 2023). Though, a radical re-envisioning of the current system would likely be required to achieve this.

... it's an Equity Problem

"The group (or groups) whose cognitive profile deviates from that norm and does not benefit from the same epistemic power and cognitive privilege is sometimes known as 'neuroatypical,' but more commonly as 'neurodivergent'". (Legault et al, 2021, para.2)

Disability – a reality concerning an estimated 15% of the European population (i.e., more than 80 million people) (Schelings & Elsen, 2017) – is at its core, a social concern, albeit one our society is simply not educated to consider as such. As a collective, we oftentimes take for granted the statistical fortune of being born disability-free, and remain ignorant to the fact that of this 80 million people, 'only 20% are actually disabled from birth, while the remaining 80% experience impairment later in life, resulting from accident, illness, ageing, etc.' (Schelings & Elsen, 2017). It's no secret that society is not built with inclusivity and acceptance of disabled bodies and special needs in mind – in the design industry, for example, it's not uncommon to hear terms like 'adjustments, alternations, or adaptations' used in association with accessible design, an afterthought to an already existing context. Though, what often goes unnoticed in conversations surrounding limited abilities is the reality that its prevalence is in fact not limited to birth conditions, and that long-term ramifications (behavioural

and environmental) apply to all people, regardless of age, gender, or ethnicity. Legault et al. posits that 'diversity is an undeniable fact of nature, and there is now evidence that nature did not stop generating diversity just before 'designing' the human brain' and yet, as a collective, we seem slow to move towards expanding our design, living and social practices to be universally inclusive of our network of diverse peers. As much is observed in most, if not all facets of adult life, where 'neurodivergent individuals [are] systematically excluded from the labour market, partially due to particular sensory needs and the lack of required adjustments at work' (Weber et al., 2022, p.2), a stark contrast to the care shown in childhood years, whereupon those presenting with early signs of neurodiversity are integrated into various stages of pre-determined support as prescribed via federal legislation (Friedman & Nash-Luckenbach, 2023).

> *"In an ideal world, individuals who receive these services at each stage would also be safely stewarded to the next stage of support via fortified systems of transitions, ensuring that both gains and safeguards would be maintained at vulnerable moments during development. In reality, however, individuals who receive support within one system often fall through the cracks either during transitions or as they progress into a new [community-based] context, to devastating effect." (Friedman & Nash-Luckenbach, 2023, p.2).*

That said, with increasing awareness comes the fostering of an increased inclination towards inclusion, and with the nascent appreciation being shown towards highly independent neurodiverse employees and the diverse abilities and problem-solving skills they bring to the table, comes a restored interest in understanding what a comfortable and inclusive environment means to them. 'Sensory difficulties and overload are common symptoms' shared among persons living with various neurodiverse conditions (inclusive of ASD, ADD, ADHD, Dyslexia, Dyspraxia), and recent studies have shown that workplace integration of 'sensory interventions and adjustments… promoting optimal arousal, using sensory modalities for self-regulation or lower over-reactivity… appear to be widely applied, accessible and well researched… although poorly implemented and their efficacy poorly understood' (Weber et al., 2022, pp.2-3). A systematic review completed by Weber et al., analyzing and comparing 20 of a total 319 studies that evaluated 'evidence for physical workplace adjustments and their link to occupational longevity, performance and health and well-being of neurodivergent workers', found numerous key overlaps which have proven beneficial towards ND sensorial experience and accessibility within a public space, and can be easily applied. In brief, their findings called for the following criteria:

"Control over sensory adaptations to the work environment were reported to reduce sensory and physical aversions and increase satisfaction...

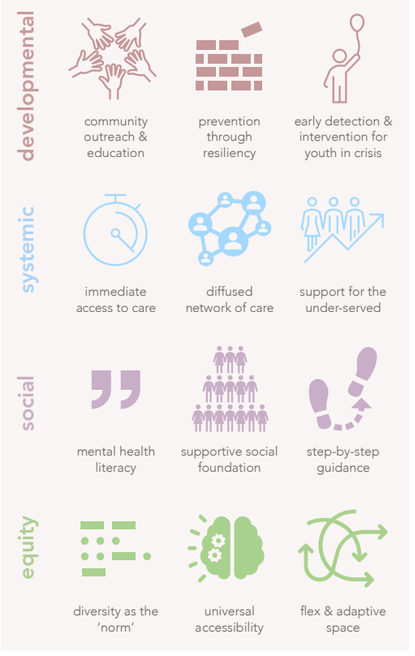
1. *Lighting control was crucial when participants suffered from headaches.*
2. *Working in a soundproofed private office and having the opportunity to use a home office relieved stress and improved work satisfaction.*
3. *Access to breakout rooms that are quiet and to breakout rooms that are social was critical to general workplace well-being.*
4. *Providing a decompression room (sensory break room w/ sensory reduction item) was reported...to be helpful in alleviating stress in workers with ASD.*
5. *Special equipment: fidget toys alleviated anxiety, relieved stress and reduced overstimulation symptoms, such as irritability and outbursts.*
6. *Provision of a treadmill desk was suggested for mitigating anxiety.*
7. *Working from home reduced stress from interpersonal interaction*
8. *Providing an expanded desk improved satisfaction" (Weber et al., 2022, p.41)*

So, lets talk Solutions.

While it is out of this research scope to aim to resolve the major issues plaguing the Mental Health system in the Netherlands and abroad, it remains in its best interest to be informed by the state of current affairs and its effects on a modern society seeking bettered mental well-being, and to synthesize the various conclusions that may manifest as a responsive and sympathetic architectural solution. This literature review has revealed several overlaps in key ideas as recommended by industry experts, legislators and analysts mentioned above. In brief, these include:

- → 'strengthening basic skills that contribute to mental well-being (i.e. resilience, health literacy, and self-advocacy) should be a permanent part of education' (Trimbos Instituut, 2023)
- → reduced waiting times can be facilitated through greater emphasis on prevention/ early detection, this means greater guidance for young adult populations. (Centre for Mental Health, 2018)
- → more cooperation is required among regions, supported by better distribution of patients amongst various healthcare providers. (Prudon, 2023)
- → access to intermediate mental health services (i.e., crisis stabilization centres) that exist as extensions of existing community facilities may aid in managing hospital overload and in providing immediate care to seekers. (Parker & Sell, 2023)
- → 'it is important to realize that underlying causes lie outside the young person himself, for example in the social, community or physical environment' (Trimbos Instituut, 2023, para.12)
- → 'efforts should be made to ensure better and faster access to mental health treatment in neighbourhoods with a poorer socio-economic status.' (Prudon, 2023).
- → 'neurodivergent people are more likely to thrive in environments where they feel confident... we must create environments where all employees feel valued, understood and encouraged to be who they are.' (Texthelp, n.d., para.21)

these recommendations begin to inform the following design guidelines...



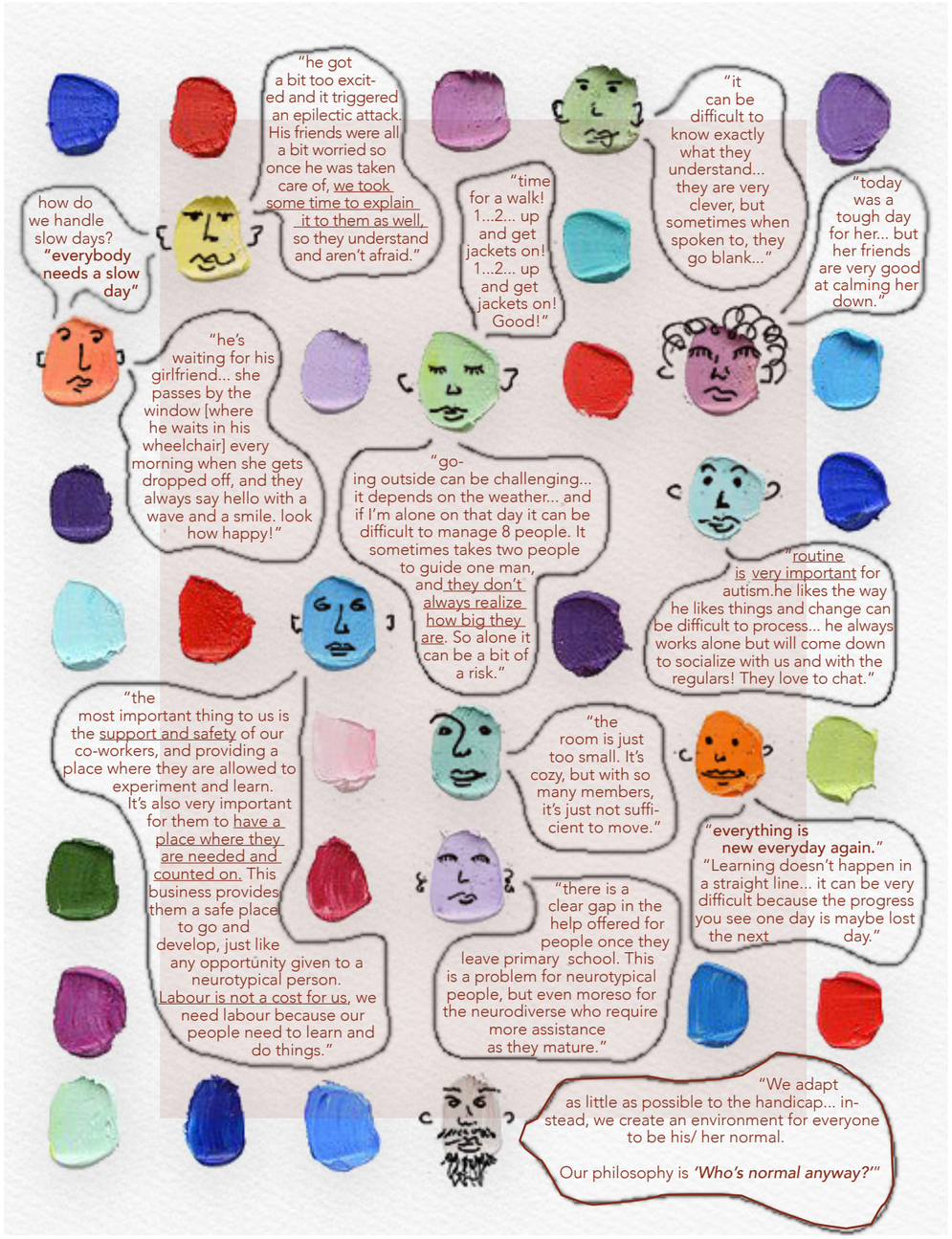


Fig 13.
Conversations on Neurodiversity. (Own Work)

2 IDENTIFYING TARGET GROUP NEEDS

2.1 Let's talk about Neurodiversity

Interviews with Industry Professionals
To gain informed and accurate insight into the daily lives and needs of key target group members (young adults, neurodiverse and neurotypical), it was imperative that this research seek out various specialized professionals working within the Mental Health and Special Needs sectors. 4 formal interviews supported by 10 informal conversations were carried out over the course of the research phase. Interviews with industry professionals include personal contacts and employees at each of the four selected fieldwork placements (i.e., Brownies & downieS, Willem Felsoord Dagactiviteitcentrum, De Ruimte Dagbesteding, Stads-Koffyhuis). Key points summarized from three of the four formal interviews are reflected below.

2.1.1 Willem Felsoord Dagactiviteitcentrum - A conversation with a Daycare Manager

- There is a clear gap in the help offered for people once they leave school.
  In a standard school for children of pre-pubescent years, the teacher to student ratio is approximately 1:3... But here, at the activity centre, we average a 1:8 ratio in our groups.

- Arrival to the facility is organized and generally supervised by someone at all times (clients do not arrive at the facility alone of of their own capability).

- As a daycare centre, a typical day lasts from 9:00 - 15:00, and there is a daily scheduled morning drop-off and afternoon pick-up.

- What does it mean to work with someone who has special needs?
  Everyday is new again... the Client's needs vary everyday - the challenge becomes ensuring that they are able to learn and be stimulated everyday, at all times if possible.

- **Repetition is extremely important for this reason**... progress is possible, but the progress you see one day, maybe continues into the next, and then might be completely lost the day after that... **they need to be pushed.**

- Parents want this because they want their children to have the best possible life as they age...

- We must adapt to Client's changing needs everyday. For this, **we use the LACCS program**. This is a program/ tool for assessing people with severe intellectual or multiple disabilities (EVMB) to ensure their quality of life day-to-day. It concerns 5 areas: **physical well-being, alertness, contact, communication, and stimulating use of time.**

- Considering the mental maturity, a large percentage of our members are mostly or completely non-communicative. That said, **their communication is very pure**... if you know how to read them, you learn a lot.
  It just takes time and interest to know them, observe them, and understand them.

- The most important thing is to keep all members actively stimulated, because without this they cannot progress or develop further.

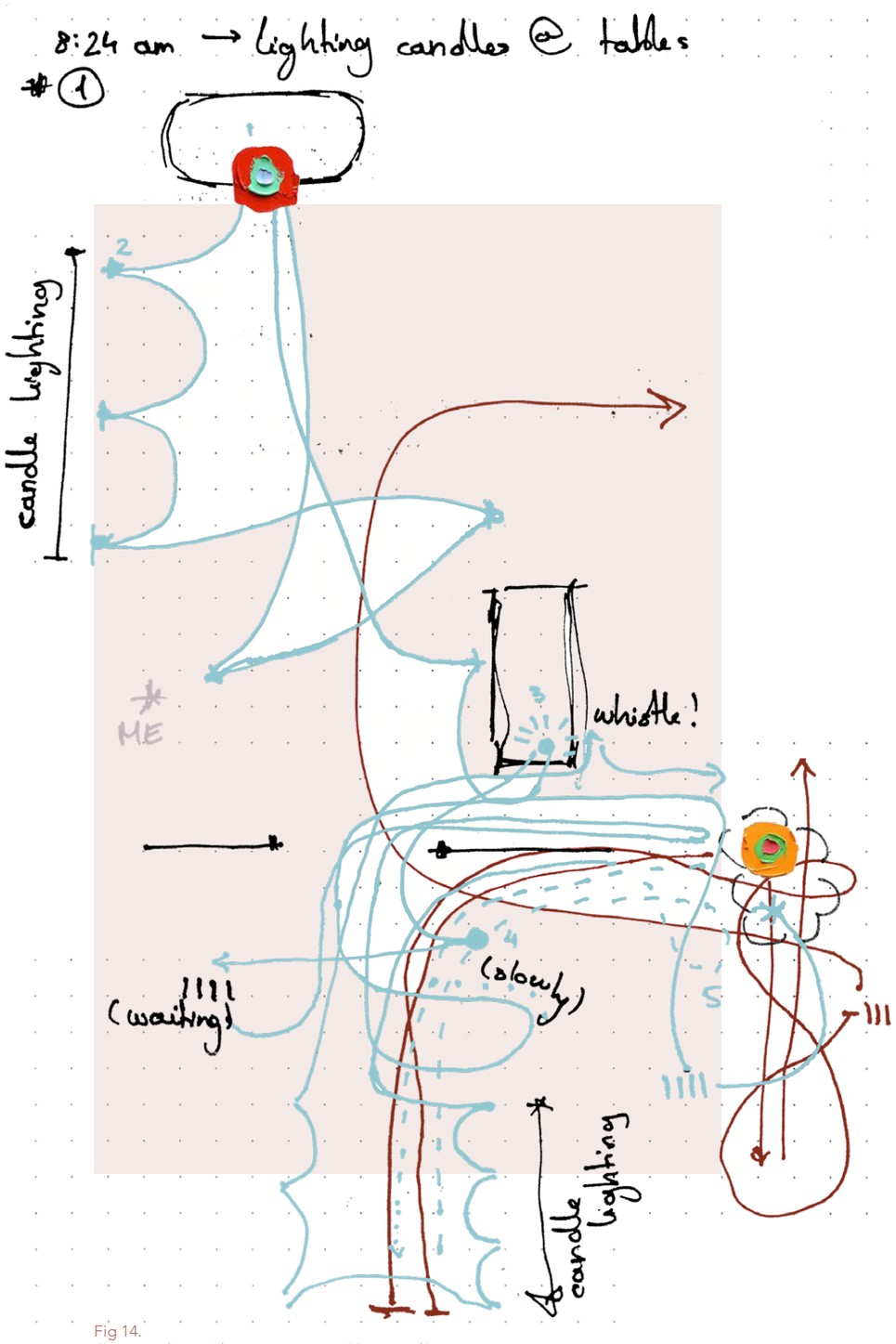


Fig 14.
Cartographic Analysis - Restaurant. (Own Work)

- Activities performed here, we try to keep honest. For example, if they are doing 'work' work, we try to make sure it has a true purpose behind it... **because they get stimulation and purpose out of it**... otherwise the act becomes untruthful for them.
They wouldn't know the difference, but the lie feels completely unfair and unethical to them.

- Our activities are more focused on **play** than 'real work'.

- Our facilities work in a sort of "roof-tile system", they stack on top of each other, based on skill, mental ability, and scale of personal progress. Clients will start here at 18, and then have the potential to progress to more advanced work-type programs (i.e., De Ruimte). And from there, it's even possible to progress to real world work. **This is our hope for all of them.**

End of Interview

2.1.2 Brownies & downieS Cafe - A conversation with Upper Management

[...Discussing the Program...]

- A bit about us... the Dutch education system is quite well organized up until a student reaches 18 years of age. After this it gets quite complicated; there is no formal organization and no exact company that exactly fits the needs of someone with a special handicap.

- The founder of Brownies & downieS worked in the special education sector and observed this. He was concerned with this question of: "*Why don't we have a place for these kids after 18 yrs? Why don't we make one?*"
He also happened to have a restaurant background and decided to combine this with his special education experience. In doing this, what he discovered was that, in fact **there were not very many considerations needed to make this idea a reality**.

- What is mostly needed is **an atmosphere where these kids are able to feel welcome, safe, and is slow-paced enough that they don't feel rushed or unnecessarily stressed.** It's important to be clear that this is not a hobby. It's a business and it's run like a business. **As a business, we want something that is lasting and has mileage to it**. For this reason, it's important to us first to make sure that we have a good restaurant - this is the key to our business and social model, because **in fact, it is a good restaurant.** But, it is also a care company.

- In the Netherlands, handicapped people do not need to work. What they do need **is care and education**. But, Work is considered a role played as part of the "real" world, and th**ey do want to participate in this**. We want to give them this opportunity and we want to challenge them.

"People know us, they like us... We are known for good food, nice environment, and doing something special."

Fig 15.
"Alle pictogrammen van Visitaal" (Adapted from *Visitaal pictogrammen totaal*, 2023)

- As a business, we try to adapt as little as possible to the handicap. We operate by the philosophy of **"who's normal anyway?"**, and instead we create an environment in which **everyone can be his/her normal.**

- The most important things for us to consider are:
  i. the **support and safety** of our co-workers, and
  ii. providing a place where they are allowed to **experiment and learn.**

- It's also very important for them to have a place where **they are needed and counted on.** [Brownies & downieS] provides them with a safe place to go and develop, just like any opportunity that we would see given to a neurotypical person.
  The best case scenario, in our mind... is that people would no longer need Brownies & downieS, and instead society would have built enough infrastructure and support for them to **just exist like any person**.

- It's not uncommon for us to engage in some form of confrontation, for visitors and for employees. **But confrontation is good, we need it, I think**.

- The reality is, at times it does get over-stimulating for our employees. There are some busy days and **we do not avoid this**. These days are really a challenge and **we can't manage it everyday**. But, like any restaurant, throughout the week there are slow and there are busy days. From a business perspective, it's important to have a balance of both, otherwise the business does not thrive. And we want it to thrive.

- So, on busy days, the chain managers must assess who, specifically, is capable of work and who isn't. The chain managers know their employees well, and based on this assessment, they might recommend to those who are more sensitive to go home early, or to stay home that day.

- It's very important to always manage the ratio between caretaker and clients. All lunch rooms are arranged to have as **close as possible to an equal balance,** so no one is lost in the shuffle.

- Additionally, **everybody needs a slow day, right?** Like a regular restaurant, we adapt by trying to maximize efficiency... we look at labour differently from a regular restaurant... **some days we provide more and some days we provide less**.

"Labour is not a cost for us, we need labour because our people need to learn and do things."

- We are not able to accept everyone, is the short answer. There is a delicate balance within a franchise's team. Each location will look at their employees and their individual capabilities, and assess what more they can handle **as a team.**

- What we offer is long-term employment.
  Life expectancy for handicapped people has been extremely lengthened in recent decades... So now, a whole life is left and has to be **spent in a happy and useful way.** We are also, now more aware of what people are capable of doing with these conditions, **so we can respond with the proper opportunities.**

- It's important to realize that in our business, our clients are not our employees, so **we cannot make them work**. For this reason it's impossible to standardize this. Everyday we have to assess the situation and just make the right choices with what we have. **There is no "one-size-fits-all" approach**.

[...Discussing Architecture...]

- Not much is done spatially. But we do follow the same colour guidlines. There are lots of greens, browns, natural colours, and green plants for decorations. The atmosphere is that of a **laid-back environment**.

- **Acoustics are also very important,** and maybe the key thing that is controlled in the design and construction of each restaurant. A space cannot be echoey or harsh-sounding. It must use soft materials, acoustic ceilings...

- There is also a **designated "quiet place"** in every restaurant. Yes. And truthfully, there is nothing there, and that's okay too.

- We also use stickers, graphics and labelling to make things legible and understandable for them. It's not uncommon for employees to not be literate**, so everything is arranged to be very visual**.

- As a result, what we've noticed is that we have a largely elderly customer base. What's interesting is that t**hey share similar needs to those of our employees**. They can easily use the space, and don't want to much distraction. They also want a cozy, laid-back environment to spend time in.

End of Interview

2.1.3 Registered Psychotherapist A.M. - A conversation with a Licensed Practitioner

- We're seeing that the future for mental health is **multi-disciplinary.** Mental health is individual mental health but it's also a combination of culuture, it's functional medicine and it's lifestyle medicine.
You can't separate mental from the body just as you can't separate the body from the environment. **They are tied and connected, and they inform each other. This is a continuous process** which is in fact a response to one's environmeent.

- What's most important now is the trend we're seeing in which the care needs to fill the gap between doing and knowing. **We've been succesful in eliminating the stigma towards mental health in the past 20 year**s, and people are more keenly seeking out mental care, which is wonderful to see, but now we're seeing a move away from tallk therapy alone...

- Advancements include Recovery Facilities today which are about helping people **get into action**... it's **about the body, and the physical state of well-being**. This includes sleeping and eating... for example, we now know that Anxiety Disorder may be because of consuming sugars...

- As a caregiver, it's important to properly differentiate between people who have a lot of access to their own consciousness and people who don't... Being sober is one thing and involves one way of existing and behaving, but being drunk or drugged... **It's another mode of existence, and this has to be understood and recognized to be properly treated.**
How do we then also differentiate and create spaces for these people who need caregivers, or don't need dedicated caregivers?

- We are also seeing VR coming into the field... it creates a lot of safety for the person undergoing the therapy.

- In the psychiatric field we talk a lot about this idea of the "**Emerging Adult**"... this is an especially vulnerable period for many aged 16-26 or 30 years, as people... share a feeling of "being thrown into the world and not knowing what to do".
As a result, they tend to experience a feeling of no support - a belief that "I cannot connect", and t**his is where community and connection become so important**. There is definitely a need to explore how this care can be further opened up into the community.

- In general, we are heading in the direction of a **more holistic view**... having patients bring a yoga mat to their sessions, and using yoga practices for trauma treatment through breathing and stretching. The question is no longer if, but how eclectic therapy will be in the future.

- We are moving towards **walk-and-talk therapy**, which actively incorporate nature into sessions... research suggesting the **presence of nature as being healing** and that just by looking at it, **alive and beautiful, our well-being improves.** These walk-and-talk sessions can be virtual or in-person, so it's flexible.

- When designing a space for mental health care - don't focus on just one diagnosis, focus on inclusivity.

- The ICD-10 medical classification system for various psychological conditions... is a book for clinicians who are trying to understand the human mind. This is a tool... and the thing with tools is that they are limited to being a tool. Humanity is not limited. We understand the diagnoses and the lables, and then, we move away from that to see the human beneath them, and the human only.
Go beyond, make space accessible to everyone, and his is how you create inclusivity [and awareness... and acceptance]!

- The diagnosis is the first step, it equals an initial 'understanding of me'. And then we guide the person to understand the steps, and then we guide them to practice the steps... Pretty much everything and everyone is on the spectrum.

- I do know of procedures where we have 1 individual whose treatment is given by a circle of care - this includes various doctors/ professionals, serving one person, who **consult together within a network**.

- What's interesting and should also be noted is that **people can evolve in their diagnoses**... in the end, it doesn't matter what you call it, what is important is that you

Fig 5.
"Alle pictogrammen van Visitaal" (source:)
Note: pre-established icons are faded to highlight the concepts that have since been revealed.

still have to do the wok
So, going back to your question of how to address inclusivity for the various conditions and handicaps, my advice to you is to look at how you do the integration. **Don't overlook it [the differences], acknowledge it and highlight it.**

- People with mental and intellectual disabilities differ from us mainly in their level of care requirements. They need care, perhaps more than us, because they don't have the same safety principles a neurotypical person does.
Members of the neurodiverse community have so much vitality... **This is the humanity behind the disability, and it deserves to be highlighted, recognized, and integrated into our world.**

- We don't all need to be the same, sameness is boring!

End of Interview

Fig 16.
Work Interactability
(Own Work)

2.1.4 Discussion

General consensus that seems to be shared across the board is revealed to be that inclusivity of all mental conditions and capabilities is lacking and seminal to improving the current standards of social functioning. Professionals working with young neurodiverse adults indicate the deep desire for and crucial importance of continued education and development facilitated through care, physical activity and stable repetition and routine. Interviewees share a common desire to right the misguided belief that disability equals incapability, when this demographic is in fact highly capable of skill-learning and mastery, highly motivated for progress, and hungry for a sense of purpose. While discussions revealed that minimal architectural adaptations were consciously made to accommodate neurodiverse conditions, several key architectural vconcepts were revealed to improve their comfort and sense of well-being in a space. Control of sensory aspects (i.e., visual elements, colours and textures, muted acoustics, calm atmospheres), flexible spaces for multi-purpose functions, and the presence of a designated quiet room in which to decompress top the list.

The same elements are suitable for neurotypical persons, though less specifically. Further recommendations to improve 'everyone's' well-being and comfort include connection to natural elements, space and opportunity for physical activity, an environment designed for universal access, and more generally, better dispersal of services and access to care.

"Specifically 8 studies reported a relationship between enhanced performance and environmental modifications. These include...

- reducing light brightness
- reducing ambient noise
- sound dampening high cube
- providing natural and incandescent light
- control over light and temperature
- expanding desk size
- private office/ room
- office in a quiet corner
- minimizing 'human traffic' passing
- alternatives to open-plans
- acoustic isolation for enhanced attention & organization skills by mitigating environmental distraction through...
  - workstations in quiet areas
  - private offices
  - using noise-cancelling headphones"

(Weber et al., 2022, p.25)

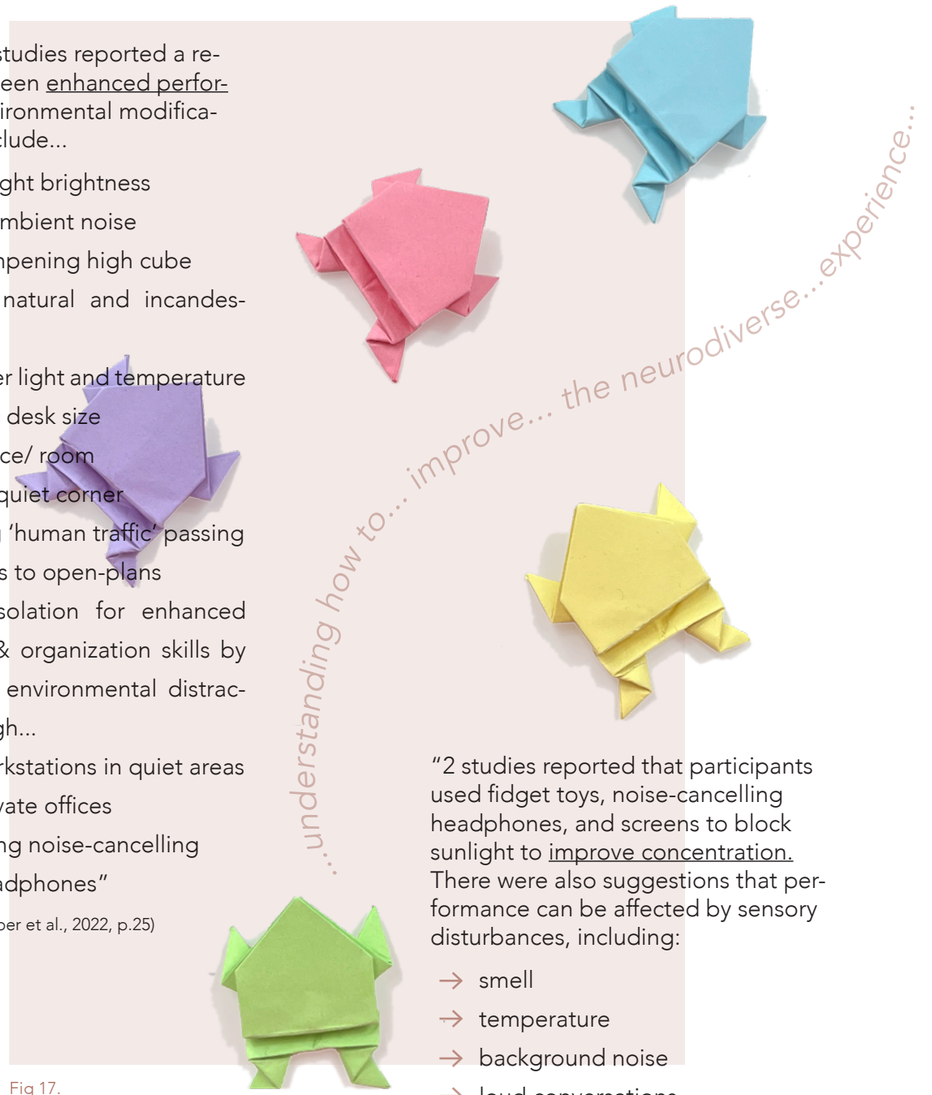


Fig 17.
Leap frog (Own Work)

"2 studies reported that participants used fidget toys, noise-cancelling headphones, and screens to block sunlight to improve concentration. There were also suggestions that performance can be affected by sensory disturbances, including:

- smell
- temperature
- background noise
- loud conversations
- crowding
- visual distraction
- lack of environmental adjustments"

(Weber et al., 2022, p.25-41)

2.2 *Neurodiversity in Life & Practice*

Fieldwork conducted throughout the Municipality of Delft

According to the schedule outlined in the Research Diagram, a week of human-centered fieldwork investigations were carried out at 3 facilities catering to the day-care and professional fulfillment of the young neurodiverse adult population residing in and around the Municipality of Delft. The select facilities consisted of:

1. A Daycare facility (dagbesteding) offering professional daytime activities for independent and capable adults ranging from 18-65 yrs.

2. A Day Activity Centre (dagactiviteitcentrum) offering activities and creative experiences to adults aged 18-65 yrs with higher care indices.

3. A local Restaurant and Cafe with a select few neurodiverse adults working as part-time employees.

A span of 1-2 days were spent shadowing caretakers and interacting with their wards, with research methods varying from recording observations from afar to direct participation alongside clients in their day-to-day activities. Considering that the facilities each provided care for a great variety of mental and intellectual conditions, the research week was spent immersed within a wonderful diverse group consisting of uniquely individual personalities, talents and sensitivities. Clients and their respective conditions varied according to severity, verbal ability, physical mobility, and observed sensoral susceptibility, but in each interaction that I was fortunate enough to share and observe, their diversity never existed as a handicap to their presence of mind or willingness to participate and connect with colleagues, friends, and their general surroundings. Verbal or non-verbal, mobile or requiring physical assistance, each individual presented as a highly creative and absorptive character, capable of impressive independence and pride towards their assigned craft and artistic expression, ranging from surfing the internet, to painting with all mediums, to gardening, sewing, and repairing second-hand bicycles. The possibilities combined with some guidance, it seems to me, are endless.

The following analyses will review the spatial and habitual observations collected throughout this week. Cartographic sketching combines with the illustrated marking of furnishings, accessories, and spatial boundaries to recount the narrative of an activity-filled day experienced through the lens of a neurodiverse mind. An initial architectural baseline is taken from the findings of the systematic review performed by Weber et al., in which multiple correlating studies outline a list of environmental modifications believed to enhance performance, comfort, and longevity within a given space (Weber et al., 2022). These aspects, as seen on p.38, were taken into consideration and applied in comparison to the various fieldwork locations under investigation.

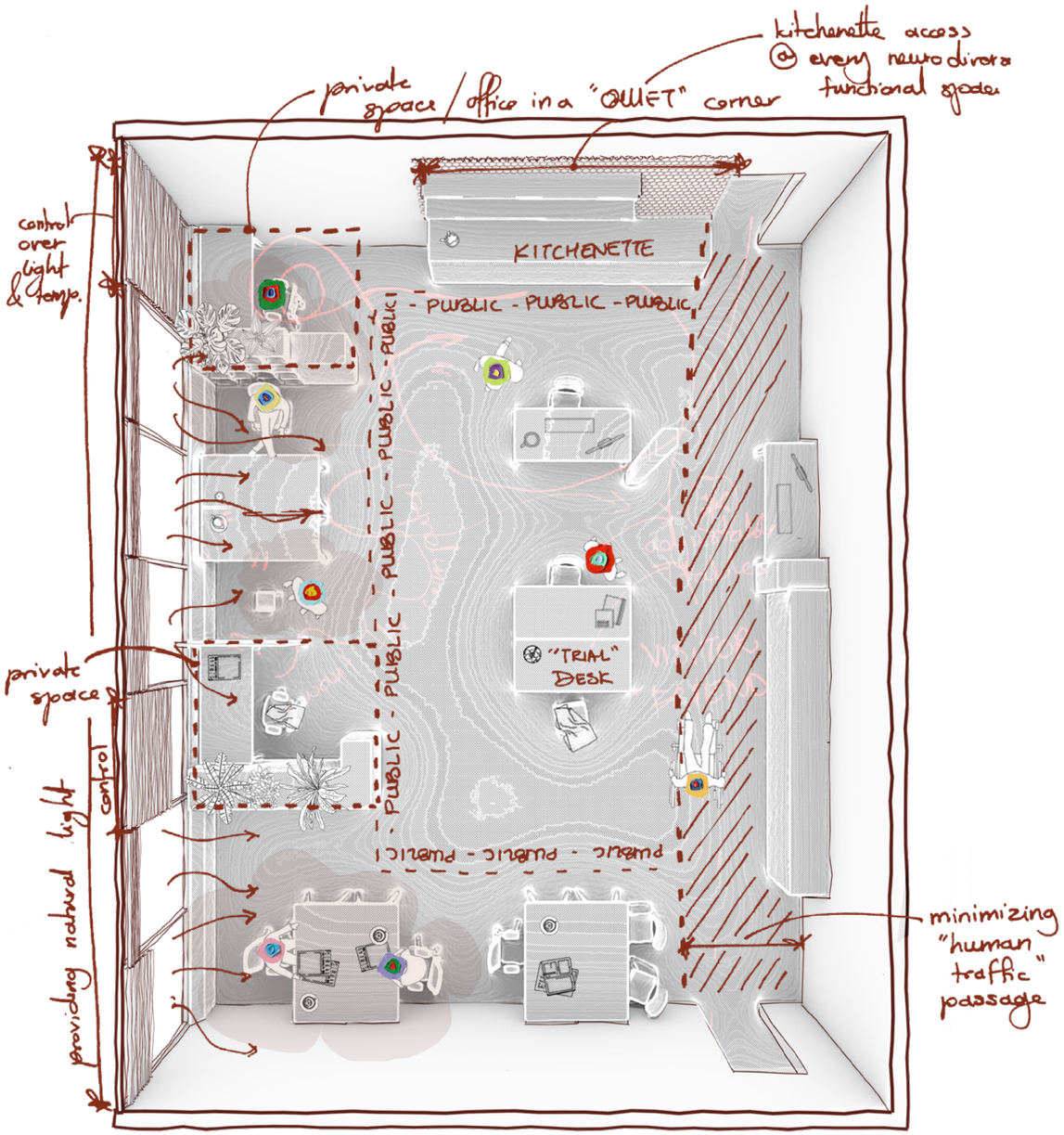
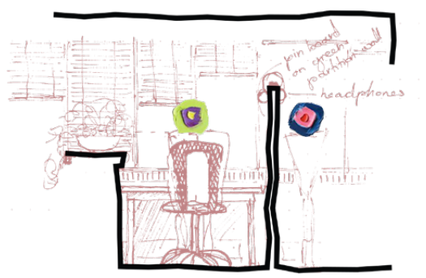
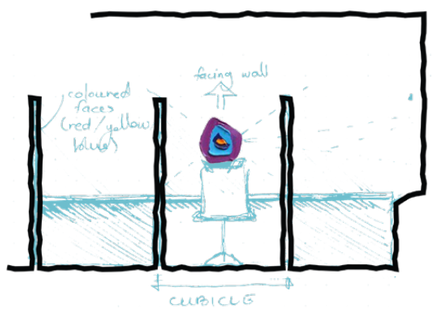
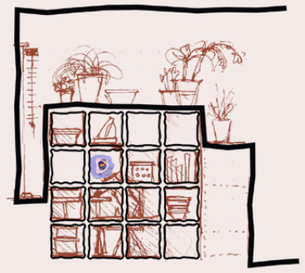
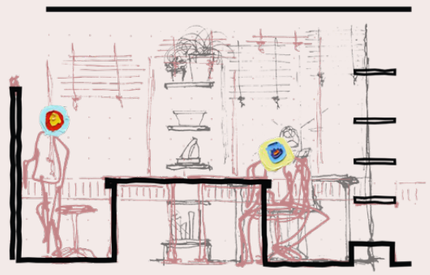


Fig 18.
Neurodivergent Plan Configurations. (Own Work)





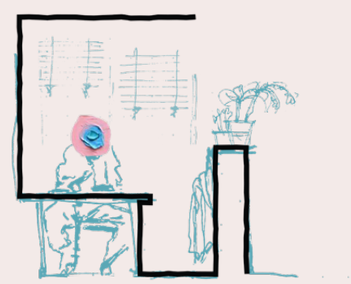




De Ruimte I Nooks and Crannies

The 'nook and cranny' phenomenon, as observed here and in most other activity rooms composing both Day Activity Centres, exhibits a simple rectilinear room, void of any internal walls and other permanent rchitectural features, but filled instead temporary furniture elements, carefully arranged into specifically segregated zones, enough to host each user of the space independently.

A sensitive and considerate response to the unique needs of the neurodiverse users inhabiting the room - offering them an intimate yet observable space of their own, with ample breathing room to prevent unwanted collisions with others, visual dividers to balance levels of visual distraction, and a composition of simple moveable and changeable elements offering a sense of personal control over the environment and its varying exposure to stimuli. Blinds may be drawn to affect daylighting, headphones resting on spatial dividers may be used to block sound, weighted blankets and pillows cushioning the chairs at the ready to subdue an over-reactive nervous system, and so on. Flexible yet uncomplicated in its arrangement, the neurodiverse worker's space is one designed for comfort and easy recognition.



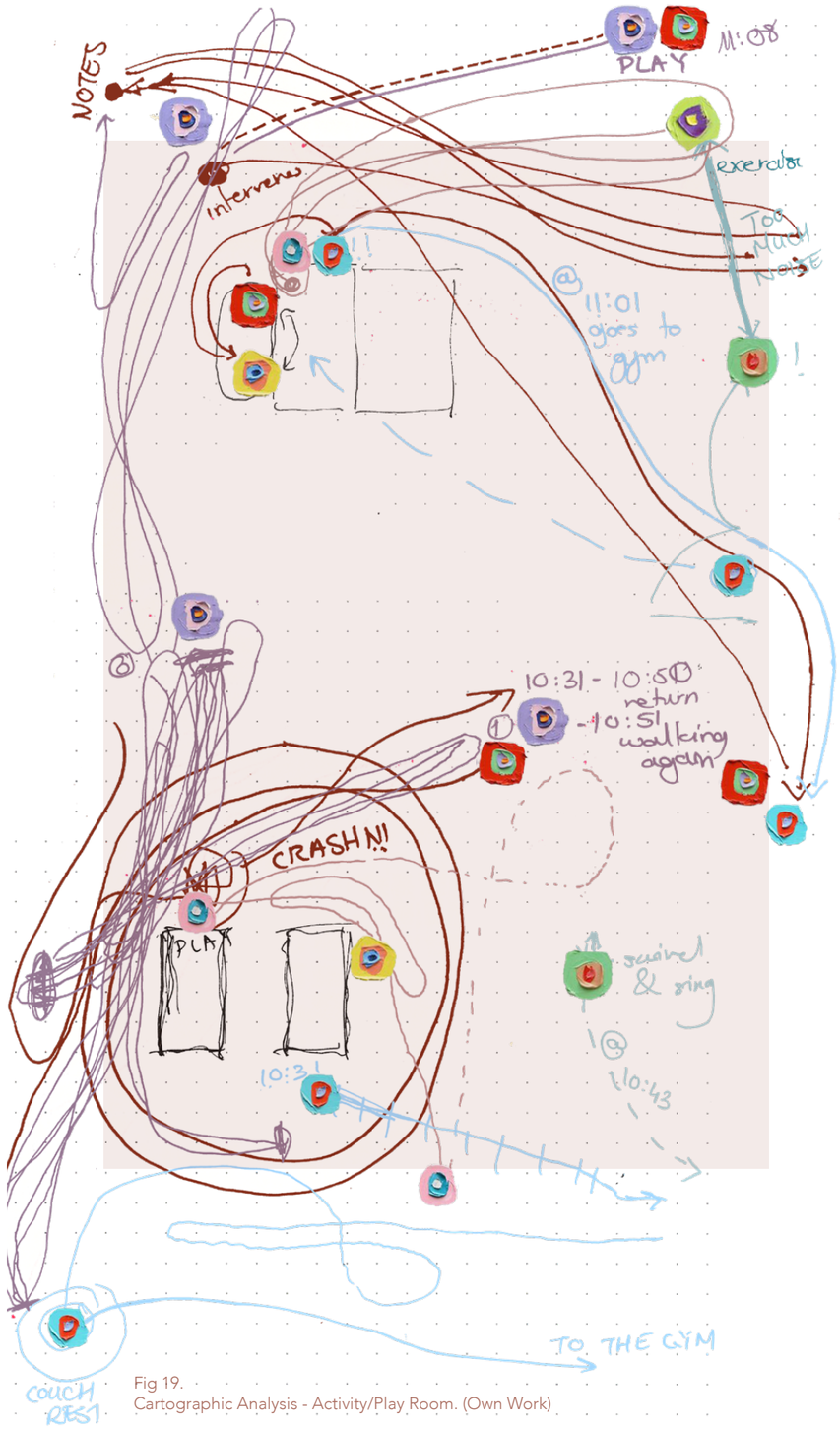
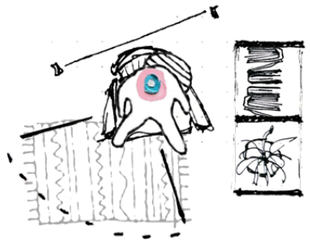
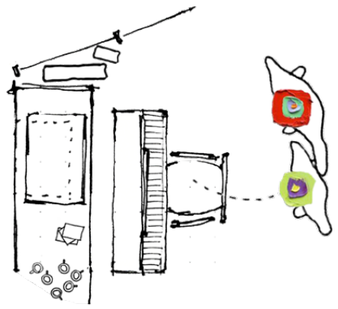
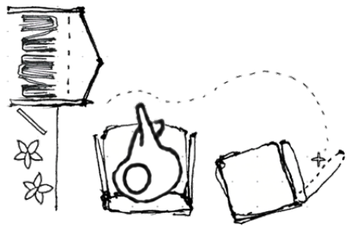
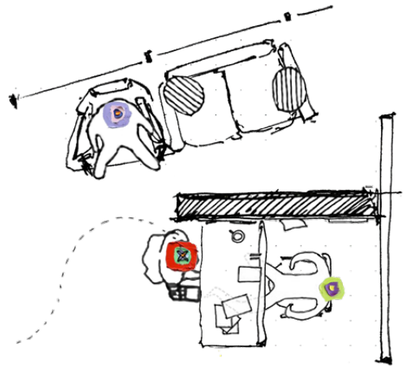


Fig 19.
Cartographic Analysis - Activity/Play Room. (Own Work)









Willem Felsoord | The Chair as Definer of Space

Looking closer uncovers the hierarchical importance of the seat to the neurodiverse user, the core of any given 'safety zone' within a space - the send-off point from which to travel and the ultimate destination to be reached. While certain conditions may present with ambulatory tics, manifesting in a restless back-and-forth passage from one boundary (usually a wall or some other immovable obstacle) to another, the observed majority of this subject's groups time is spent stationary, engrossed in whatever train of thought, activity, or tool rests in front of them.

Oftentimes an individual's seat is assigned, a preferred throne and vantage point from which to observe, connect, or dissociate, at will. The remaining chairs, armchairs, futons, beanbags, or sofas, of which there are many, are assigned to the periphery of the space, defining comfortable boundaries designated for rest, play, or just some quiet solitude. This is a common courtesy which has been noted in multiple settings - the offering of choice to neurodivergent users/ employees according to their perceived sense of comfort or willingness to participate in group affairs. The periphery as designated for quiet time, while the open chairs lining the central table stand as invitation for a chat, at their own will.

informing design guidelines...

Note: pre-established icons are faded to highlight the concepts that have since been revealed.

2.3 Case Study Analysis

The following case studies exist as real-world precedents of community centered initiatives offering both formal and informal mental care and support to community dwellers, at varying scales and degrees of enclosure. In reviewing these examples, further information will be gleaned as to the type and scale of facility used, the types of internal functions and their inter-relationality, and the building's general placement within an urban setting which would best serve a dedicated Mental Health Support Centre proposed in a given urban environment.

Select case studies and their strengths in providing effective community care and suppport will be evaluated according to the following criteria:

1. Accessibility (universal)
2. Connection to Nature & Placement within an Urban Setting
3. Variety of Therapeutic Services Offered
4. Programmatic Elements, their Connectability, and General Spatial Requirements (size, egress, connection, window access, etc.)

Note: Criteria are informed by professional recommendations and conclusions drawn from interviews and fieldwork observations.

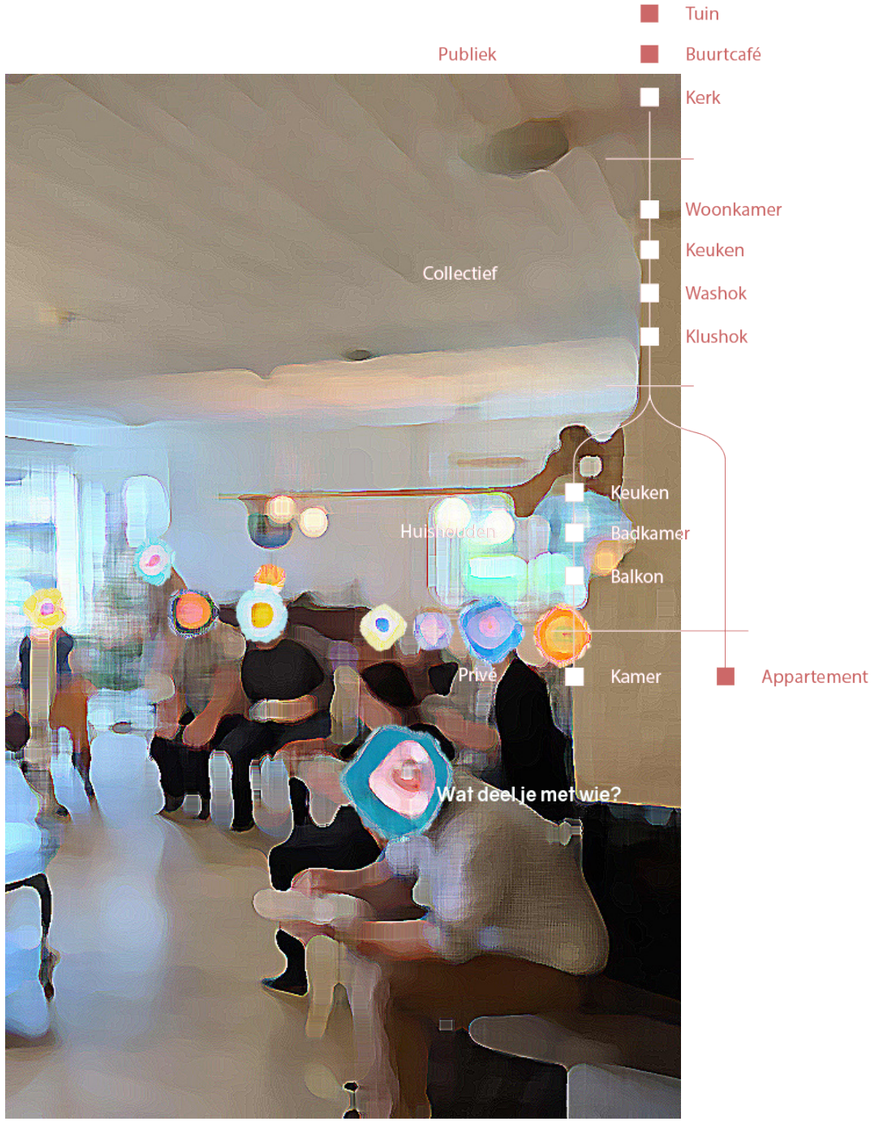


Fig 20.
Image composition by Author, (Adapted from Taste Delft, n.d.-a)

CASE STUDY 1 | Taste! Cafe, Delft

A community initiative promoting connection & support

A 'Christian community residence' (Collectief Wonen Delft, n.d., para.1) located within the highly densified urban district of Voorhof in Delft, this Collective Living environment sets precedent for a live-share-gather typology, where internal residents live and share interior building spaces and functions, and then further open a select few spaces within to the neighbouring public and beyond, both for temporary rental possibilities and for weekly organized gathering events. On any given day, the building's permanent function is that of a private residence of 19, with a combination of private family apartments and individual 1-person bedrooms spread across two, nearly symmetrical wings of the Westside and Oostblok, and with shared amenities (i.e., kitchen, pantry, storage, bathrooms, living rooms) aggregated within the central core of the building (see Fig. 21).

> *"Although several families live in the complex, the residents see themselves as one household...The Taste! Community is broader than the house and also consists of volunteers and people from the neighborhood."* (Collectief Wonen Delft, n.d., para.6)

What makes this building unique is the resident community's willingness, driven by a religious desire for community outreach, to open their spaces and shared philosophy weekly to their neighbouring vicinity - inviting members of all ages, abilities, and religious beliefs to break bread and commune over coffee or a meal. As a privately driven initiative, the Friday Taste! Cafe represents this community's efforts towards extending outward community support to any and all in need, and to address the loneliness epidemic afflicting most Dutch residents today.

A note that the following analysis of the building will be restricted to the program and spaces of which the ground floor level consists.

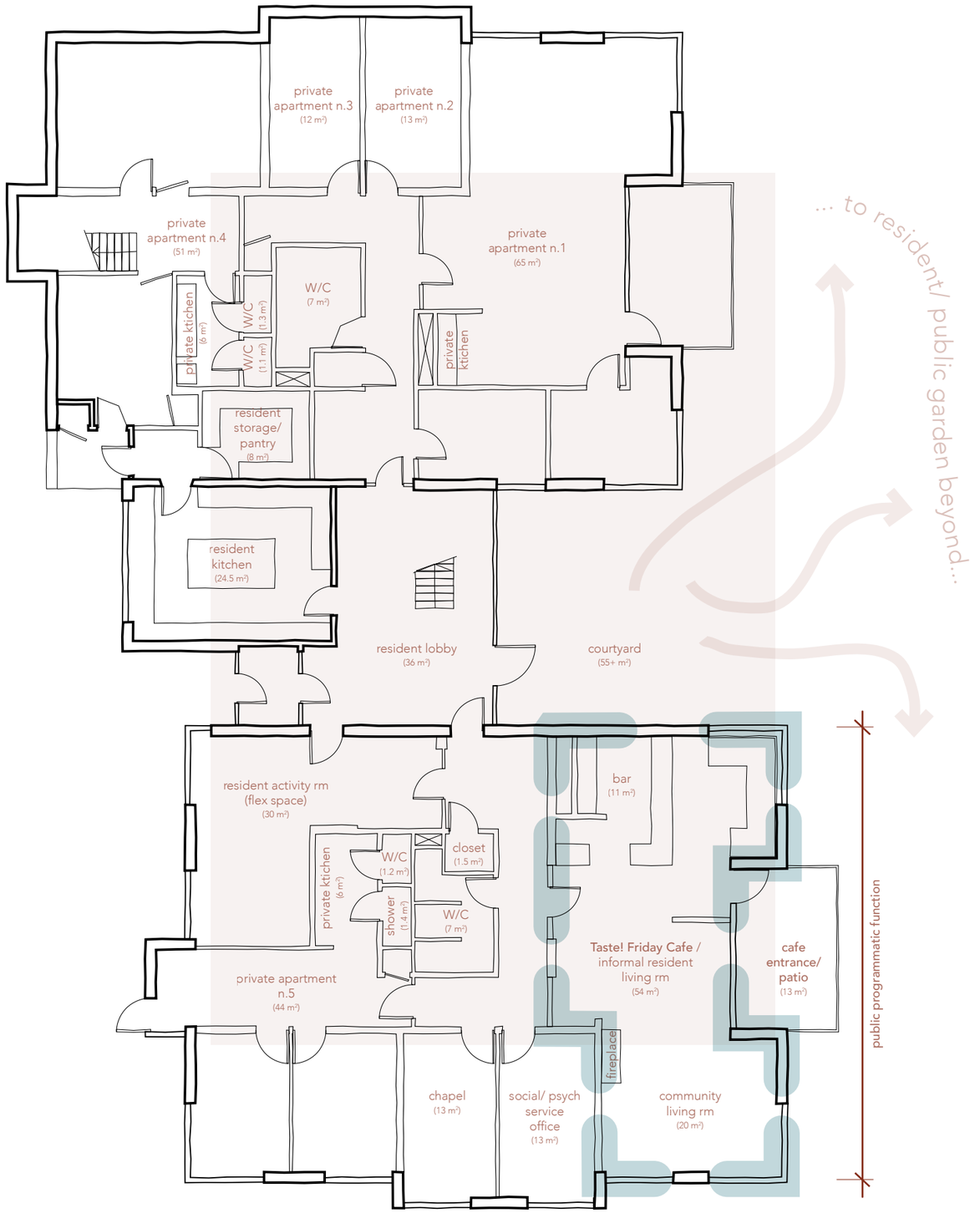


Fig 21.
Ground fl plan - PUBLIC/ PRIVATE

Fig. 22
Collective Spaces

Fig. 23
Public/ Private Program

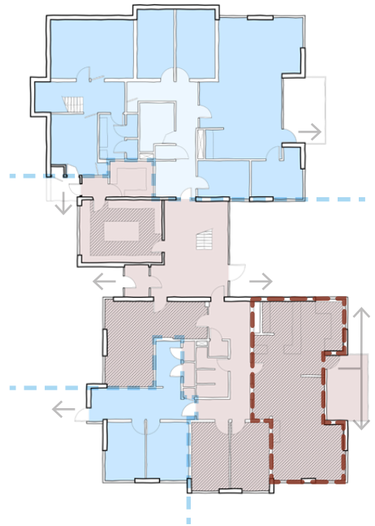
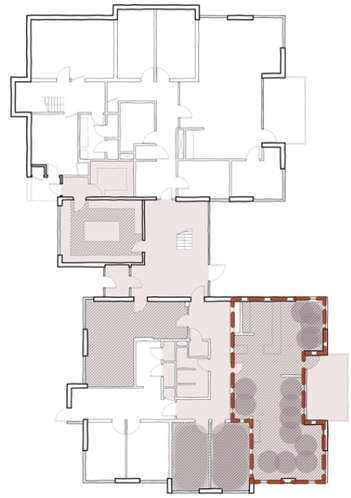
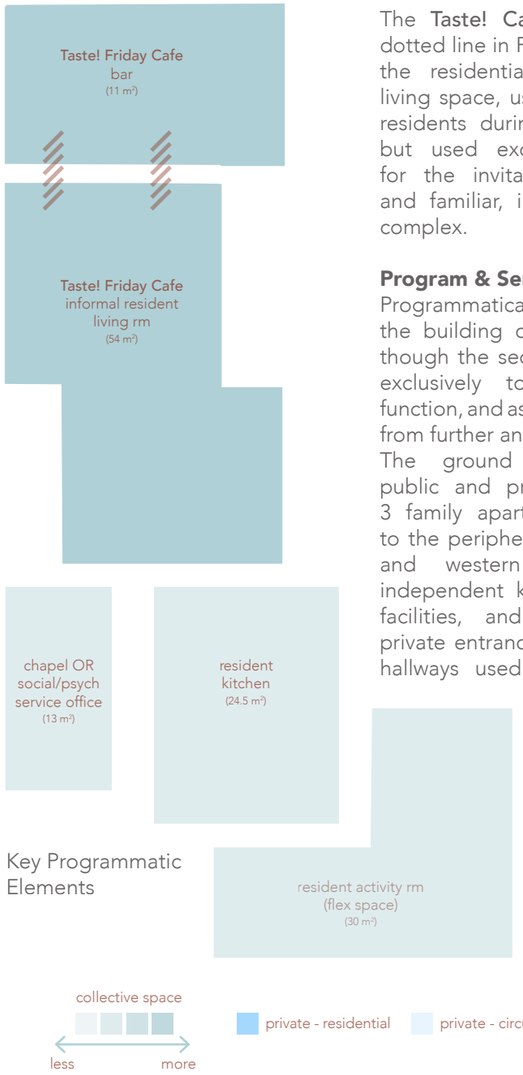


Fig. 24
Therapeutic Spaces





The **Taste! Cafe**, indicated by the dotted line in Fig. XX is hosted within the residential complex's informal living space, used less commonly by residents during general weekdays, but used exclusively each Friday for the invitation of guests, new and familiar, into the shared living complex.

Program & Services

Programmatically and functionally, the building consists of two levels, though the second floor is allocated exclusively to private residential function, and as such, will be ommitted from further analysis in this research.

The ground level shares both public and private programs, with 3 family apartment units allocated to the periphery of both the eastern and western wings, containing independent kitchen and bathroom facilities, and accessible through private entrances or through internal hallways used and shared by the collective group.

Pulic programming consists of 5 key spaces - the Taste! Cafe, the main Kitchen, the resident Living Room, the Chapel, and the Social Services Office - and extends also to the circulatory spaces connecting them all (fig XX). These otherwise private facilities are available for rent for outside community use, with the exception of Friday events, at which time, guests are invited to join in on resident traditions and their related tasks; assisting with cooking and post-dinner cleanup duties in the kitchen, and gathering in the resident living room to partake in evening entertainment, ranging from musical performances, games, movie nights, etc.

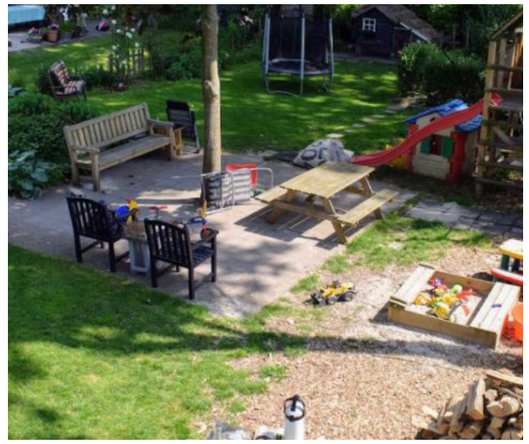
Additional events with a focus on community aid are provided through support group gatherings, organized neighbourhood walks and gardening events, and social aid, hosted in the chapel, the social servant's office, and the vast garden filling the remainder of the resident's property (fig XX). On-site interviews of members have revealed such events and facilities to be incredibly beneficial to community-members dealing with mental illness, chronic physical illness, young and underprivileged families, and generally lonely individuals seeking connection and a sense of belonging.

Accessibility

From an accessibility standpoint the building is not designed with universal experience in mind. As a predominantly privately functioning building, with only able-bodied

Fig 25.
Case Study - Site

Figs. 26-27
Exterior Spaces (de Vries, n.d.) (Taste Delft, n.d.-b)



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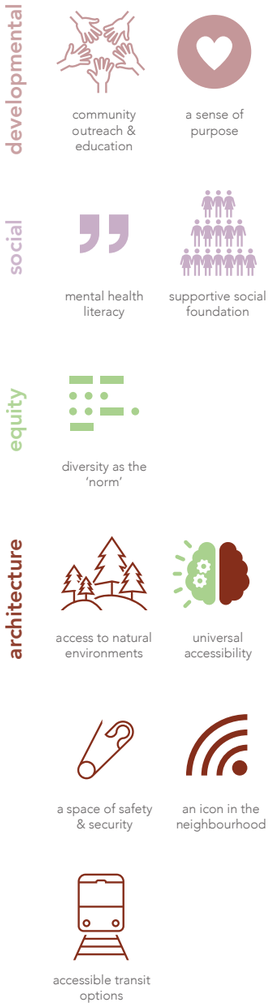


persons residing there full-time, there has likely been little need to integrate the necessary changes to achieve this. The ground level can be navigated fairly easily by those living with limited mobility, though widths of hallways and doorways are not designed in compliance with wheelchair requirements. Access to the second level exists only by means of a central staricase, and as such, with no elevator or stair lift, the options for vertical movement are limited for the physically disabled.

Accessibility within the Taste! Cafe itself, while not designed to meet universal accessibility standards, is nevertheless conducive to those living with sensory-sensitive conditions, unconsciously employing several recommended techniques including muted lighting, generous daylighting, a variety of soft and cushioned materials which support physical and acoustic comfort, and plenty of segregated seating options offering choice in experiences ranging from quiet to social.

Location & Urban Placement
Situated within one of the most 'densely populated neighbourhood in all of the Netherlands' (Collectief Wonen Delft, n.d.), this residential building sits nestled within an suburb considting of a collection of high-rise apartment complexes serving student and elderly populations, and a variety of single-family homes and low-income housing blocks.

Central to what is arguably the most urban and newly developed area within Delft, this facility stands well connected to local infrastructure - a brief walk from the city's largest shopping centres, grocery stores, and main transit line. Though, despite the urban setting, the residence location is ideal in its seclusion in a quiet neighbourhood, adjacent to a major traffic artery, but setback by green space, mature shrubbery and canals lining the perimter. Neighbouring the area's local church, the two buildings share a close bond but no formal built connection, as a generous south-facing garden creates a tranquil transitory space between the two. This garden, surrounded by a low fence but kept open to neighbours, churchgoers, and members of the public fulfills a variety of programmatic functions during warmer months - vegetable gardens available for reservation, playgrounds and treehouses for children, a chicken coop for egg collection, bee-keeping, outdoor patio seating, and general gardening wishes. The outdoor space exists as prominant and utilized as the communal residence itself.

Fig 28.
Stella's internal lobby & reception space (Arban, n.d.)

CASE STUDY 2 | Stella's Place, Toronto

A dedicated community mental health centre for all

A mental health support centre originating from a charitable community-based organization located in Toronto, and catering specifically and exclusively to young adults (aged 16-29) suffering or living with mental health conditions. Stella's Place has very succesfully set out to deliver 'solutions that are responsive to the needs of young adults while relieving the strains on hospitals' (Stella's Place, 2023), through the offering of a varied list of formal and informal in-person and virtual programs:

VIRTUAL	IN-PERSON	REGISTERED
bean bag chat	cafe	registered programming
virtual drop-in counselling	drop-in counselling	short-term individual counselling
DBT refresh	let's cook!	DBT skills
	MOSAIC BIPOC drop-in	BIPOC DBT groups
	Queer Expressions drop-in	

Stella's Place, 'described as a one-stop shop for young people who need mental health support...offers counselling sessions, access to a psychiatrist, peer mentors and employment resources' (Yousif, 2020) all free and available for same-day access to scheduled or walk-in visitors (Stella's Place, 2023).
The new permanent location sees the organization residing in a fully converted 3-storey candy factory, now a contemporary mental health support center designed as a *"vital healing hub with...*

- *vibrant open spaces bathed in natural light*
- *natural materials and green space*
- *unobstructed sightlines and intuitive building navigation*
- *modern technology and multi-media resources*
- *inclusive, barrier-free design*
- *multi-function room design*
- *fully equipped community and teaching kitchens*
- *comfortable and flexible work space for staff." ()*

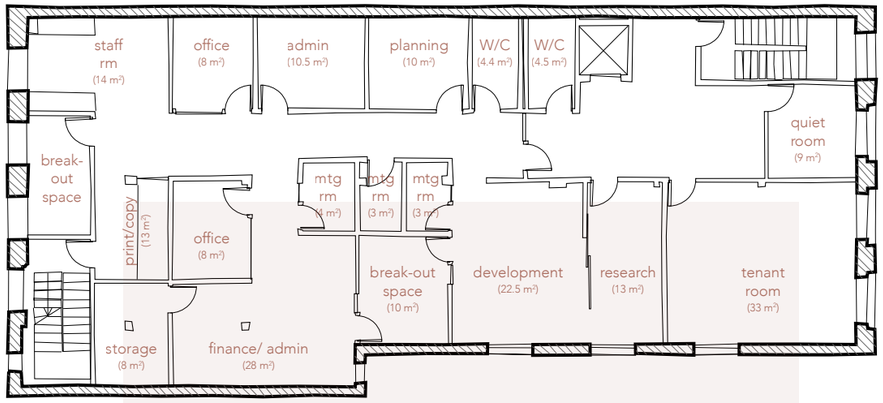


Fig 31.
Second fl plan - PRIVATE

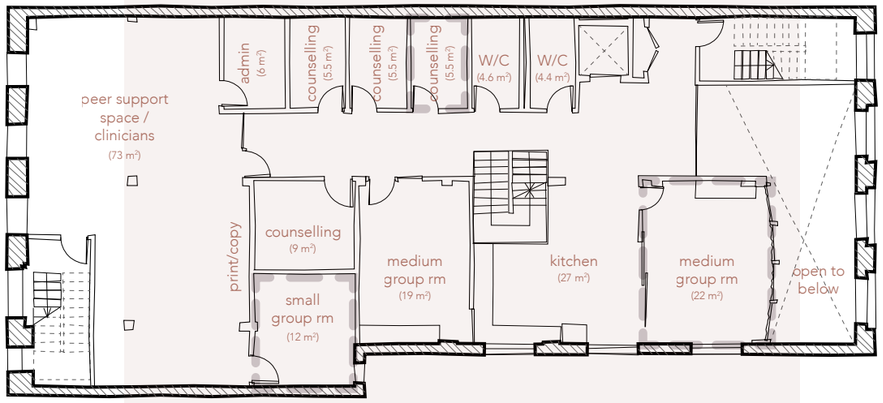


Fig 30.
First fl plan - PUBLIC

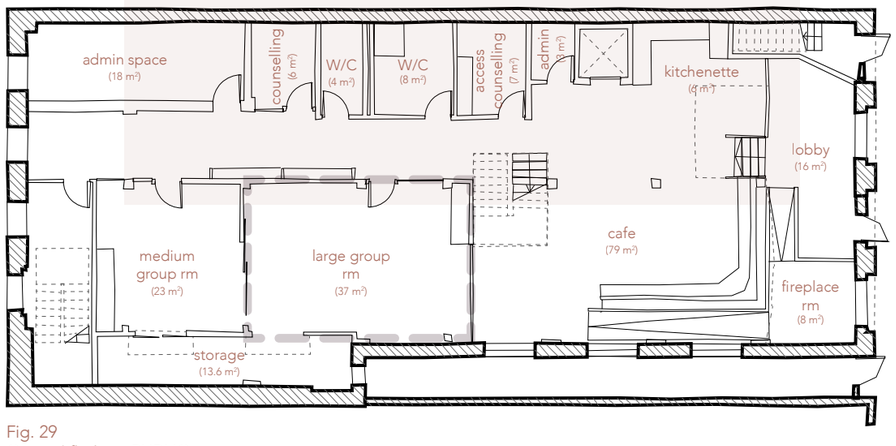
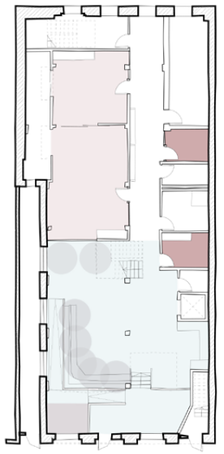
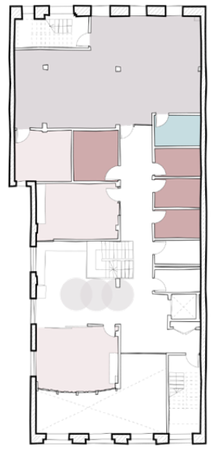
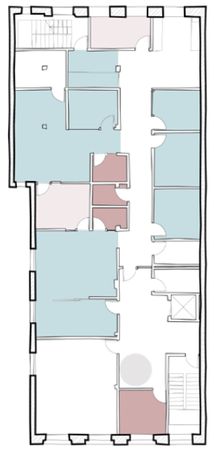


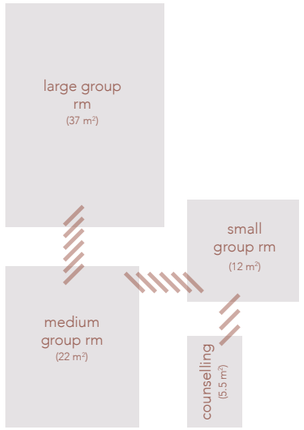
Fig. 29
Ground fl plan - PUBLIC

Mental health support programming







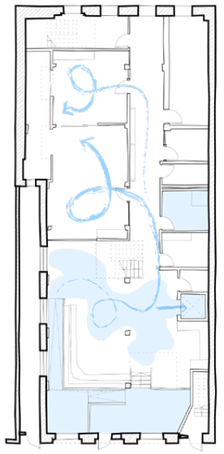


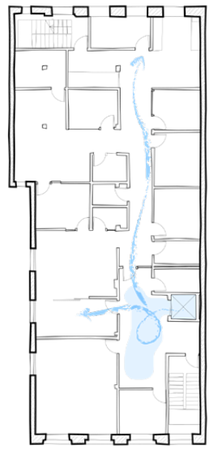
Program & Services
Designed and executed through a co-design process, the current location is that of an entirely retrofitted heritage building spanning 3-storeys, inclusive of an exterior rooftop garden.

Programmatic elements are selected and arranged in accordance to the desires expressed by the young adult community served at this facility. As such spatial functions are entirely geared to the provision of mental healthcare, with a series of formal and informal counselling rooms of all sizes, a variety of flexible gathering spaces for collective activities and events, and with leftover space allocated to the administrative functions of the Stella's Place charitable organization overseeing the building's daily functions. A recessed cafe-lobby greets walk-ins or scheduled visitors alike and 'offers an **open, daylight-filled and non-clinical'** (Stantec, n.d., para. 2) first impression of the building, while ushering visitors towards their appointed services. Public programming is allocated to the ground and second floors, where a variety of therapy/counselling rooms are made available for varying user needs. In this building alone, these rooms include:

- 1 large group meeting room,
- 3 medium group meeting rooms
- 1 small group meeting room
- 1 peer support space
- 5 private one-on-one couselling spaces

Use of universal design





collective space | administrative space | therapeutic space (informal) | therapeutic space (group) | therapeutic space (private) | accessible space

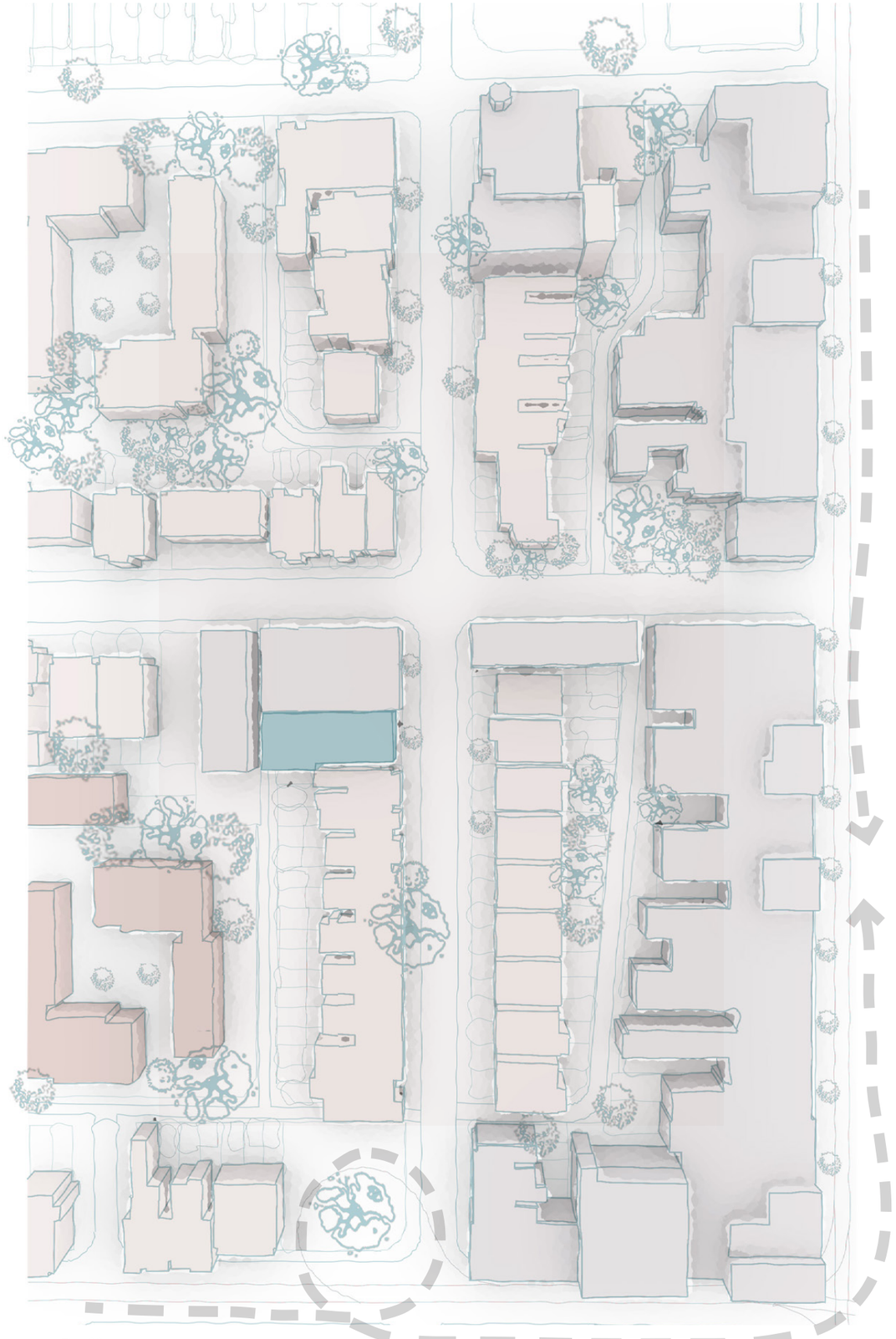


Fig. 32
Case Study - Site Location

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Fig. 33
Exterior Spaces (Stella's Place, n.d.)

Accessibility
The architect describes this facility as a 'fully accessible space' (Stantec, n.d., para.1), though this is predominantly indicated by the presence of an entry ramp guiding mobility-challenged visitors to the recessed lobby at the ground level, and an easily accessibly elevator to permit vertical travel throughout the building.

It should be noted that as an adaptive reuse project, the building program is restricted to an existing building footprint and structure that is native to Toronto, Canada. The rougly 1,022 m^2 space of the historical candy factory is substantial for a dedicated mental health centre and ensures that adequate care reaches a rather large population, though the predominant verticality of the structure is rather limiting in the attention shown towards designing universally accessible paths of travel. That said, the floor plans indicate a clear, legible, and spacious arrangement of rooms which would facilitate wheelchair-bound or impired travel throughout the space, and would further support neurodiverse populations who require clarity and legibility when navigating new environments. It appears also, based on spatial requirements, that a single universal washroom is availabel at the ground level.

Location & Urban Placement
Stella's Place is located at the edge of a highly densified urban residential neighbourhood within the Toronto Metropolitan area. Just one block north of one of the city's major arterial streets lined with shopping, dining and multiple public transit options, the area is highly accessible by various methods, but is also highly trafficked, and as such, is often congested with pedestrian and vehicular travel - a factor which is arguably not the most conducive to health promotion and recovery. That said, the building's location on a quiet residential street acts as a buffer to the traffic surrounding it otherwise.

As the building sits within a narrow lot, surrounded on all sides by other structures, there is no available room for green space to be used privately by the organization. In an effort to compromise with this restriction, the architects were sure to include a rooftop garden to the building's program, though it is not confirmed how much of this space is in fact green or how conducive this is towards improving the experience of mental health patients.

case study location | public/ commercial buildings | low-rise residential | high-rise residential

Fig. 34.
De Ruimte Day Activity Centre. (Dagbesteding De Ruimte in Delft, n.d.)

CASE STUDY 3 | De Ruimte, Delft

A dedicated care & activity centre for the neurodiverse

Designed to bridge the gap between neurodiverse community members and the labour market, this facility combines skill-building and work opportunities with provision of care - ensuring that all persons seeking

- greater community involvement,
- a personal sense of purpose, or
- the opportunity to give back to society,

are given a fair chance to do so, regardless of limitations or additional supports required.

The practice of sheltered work is adopted in full effect, as 'employees' arrive daily (according to full-time or part-time work schedules) to perform a full day of supervised work activities alongside their colleagues. Participants are invited at 18 years, to engage in 'work trial' days where they are able to explore a variety of suitable interests in a low-pressure and low-stakes environment. The facility offers a variety of in-house programs, ranging in degrees of physicality and technical ability, but made universally accessible to all. Physical mobility, sensory limitations (i.e., blindness, verbal ability), or wheelchair dependency is no consideration, as supervisors are trained to provide responsive and flexible, albeit non-overbearing care. Additionally, as a long-standing staple in the Voorhod neighbourhood, the organization enjoys a variety of lucrative partnerships with outside companies (i.e., Ikea, hospitals, etc.) seeking production services, enabling it to provide employees with real work in response to real needs within its surroundings.

The facility represents a safe hub within which employee-clients are able to develop through a routine, repetition and community engagement, and benefit from the ensuing purpose derived from performing dignified and autonomous work.

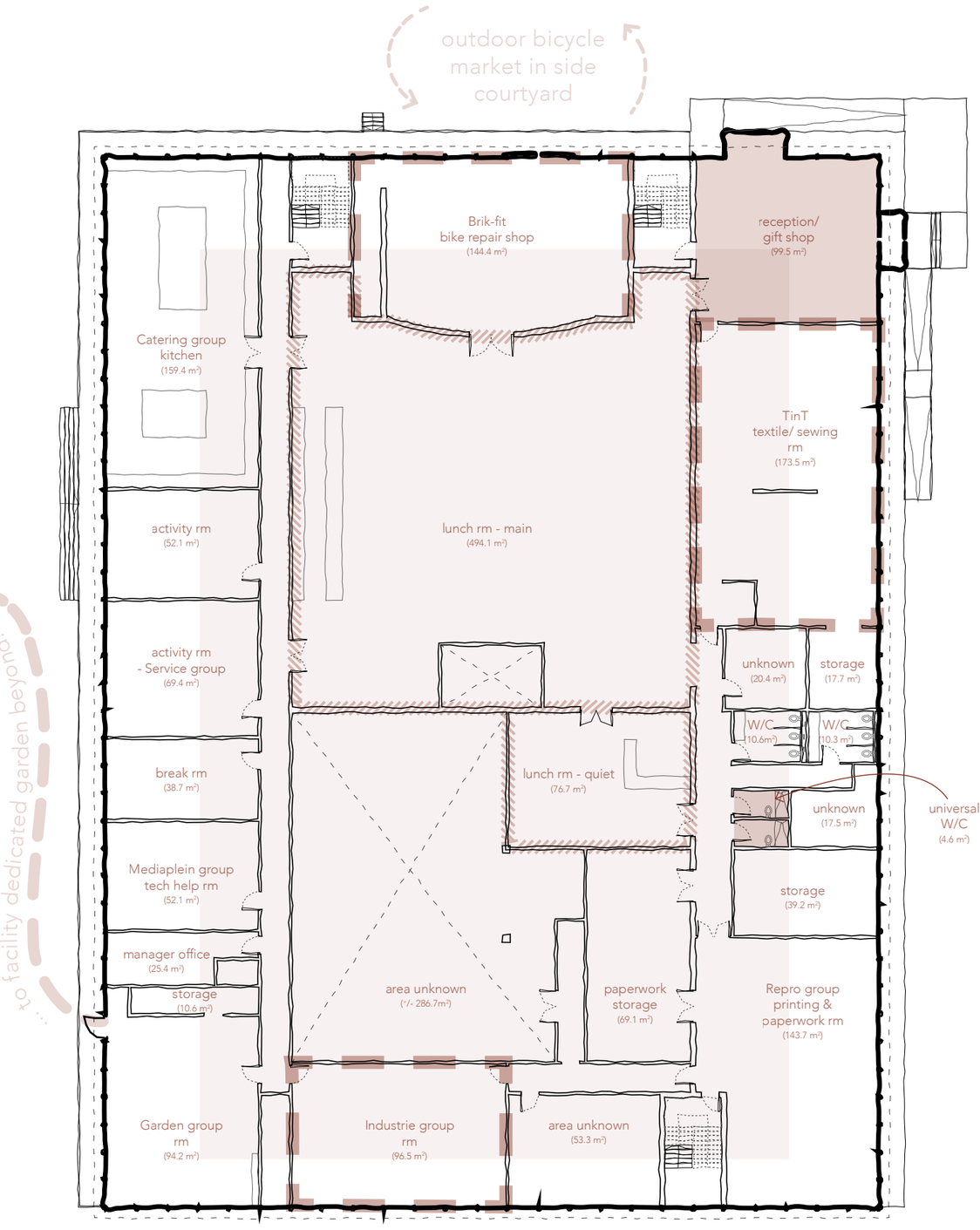


Fig 35.
Ground fl plan - PUBLIC

Fig. 36
Work vs. Leisure Spaces

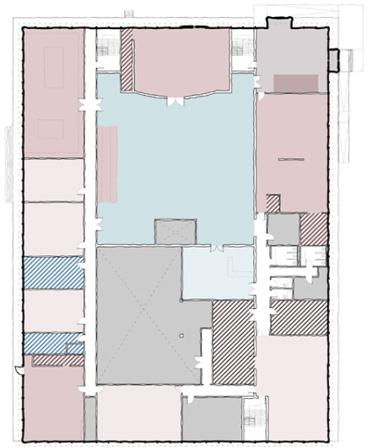


Fig. 37
Public/ Private Program

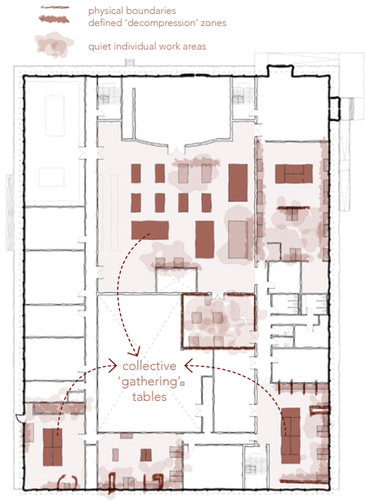
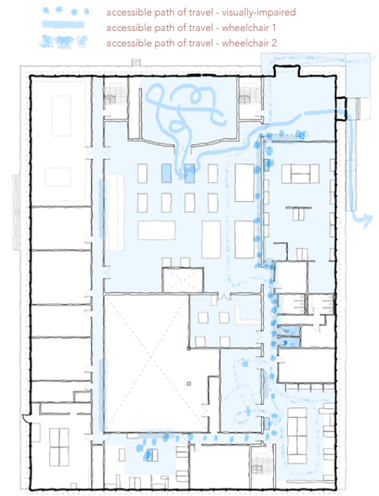
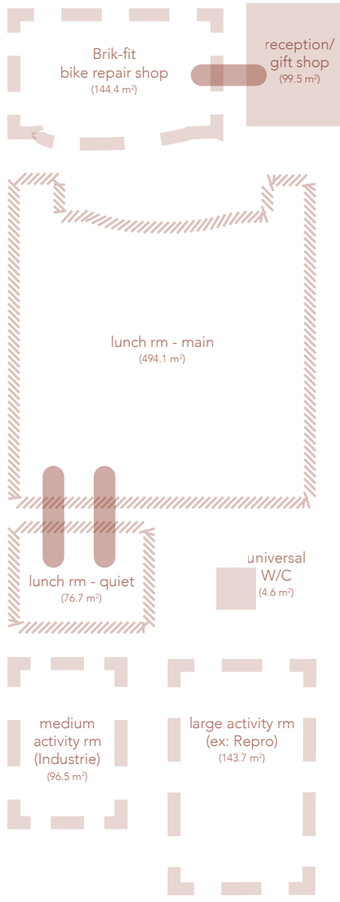


Fig. 38
Accessibility Study





Key Programmatic Elements

Program & Services

According to the facility's official website, the daycare facility offers members the following 'supported employment opportunities:

- Repro - group work specializing in printing and packaging of products
- Industry - light work involving the packaging and assembling of industrial products
- TinT - creative production of embroidered and sewed textile products
- Brik-fit - new & recycled bicycle repair for community sale
- Catering - cooking daily lunch services for facility members and events
- Gardening - group dedicated to garden maintenance and local landscape cleanup
- Services - responsible for cafe service, cleanup and management
- Mediaplein - multimedia group responsible for in-house and client vlogs, explanation videos, etc.' (Ipse de Bruggen, n.d.)

Housed within a retrofitted pre-existing office building, the rectangular floor plan is arranged in a simple and legible manner, with functional spaces allocated along the full length of the perimeter, and gathering (i.e., lunch rooms, cafe) spaces arranged within a central core. The lunch room - used 3 times daily for coffee and lunch gatherings - constitutes the heart and soul of the building, around which a centrifugal circulation occurs, as workers and supervisors pass around it to reach their dedicate work spaces.

Programmatically, each activity is assigned its own dedicated functional space, varying in size according to the physical and technical demands of the associated tasks. Larger spaces meet the needs of larger groups, and are filled with equipment and supported by large storage closets of crafting, printing, and repair gear. Smaller rooms (no smaller than 50 m²) are dedicated to low-energy tasks and are arranged to offer personalized comfort to users (i.e., cushioned seating, soft materials, blankets, colouring books, etc.). Rooms are lines with full-height glazing paired with manually operable blinds, creating an interior atmosphere of ample daylighting made manageable by the choice to oncrease or decrease it, as will. A reception space doubling as an in-house gift shop, welcomes visitors to become informed on the works done here, but maintains employee

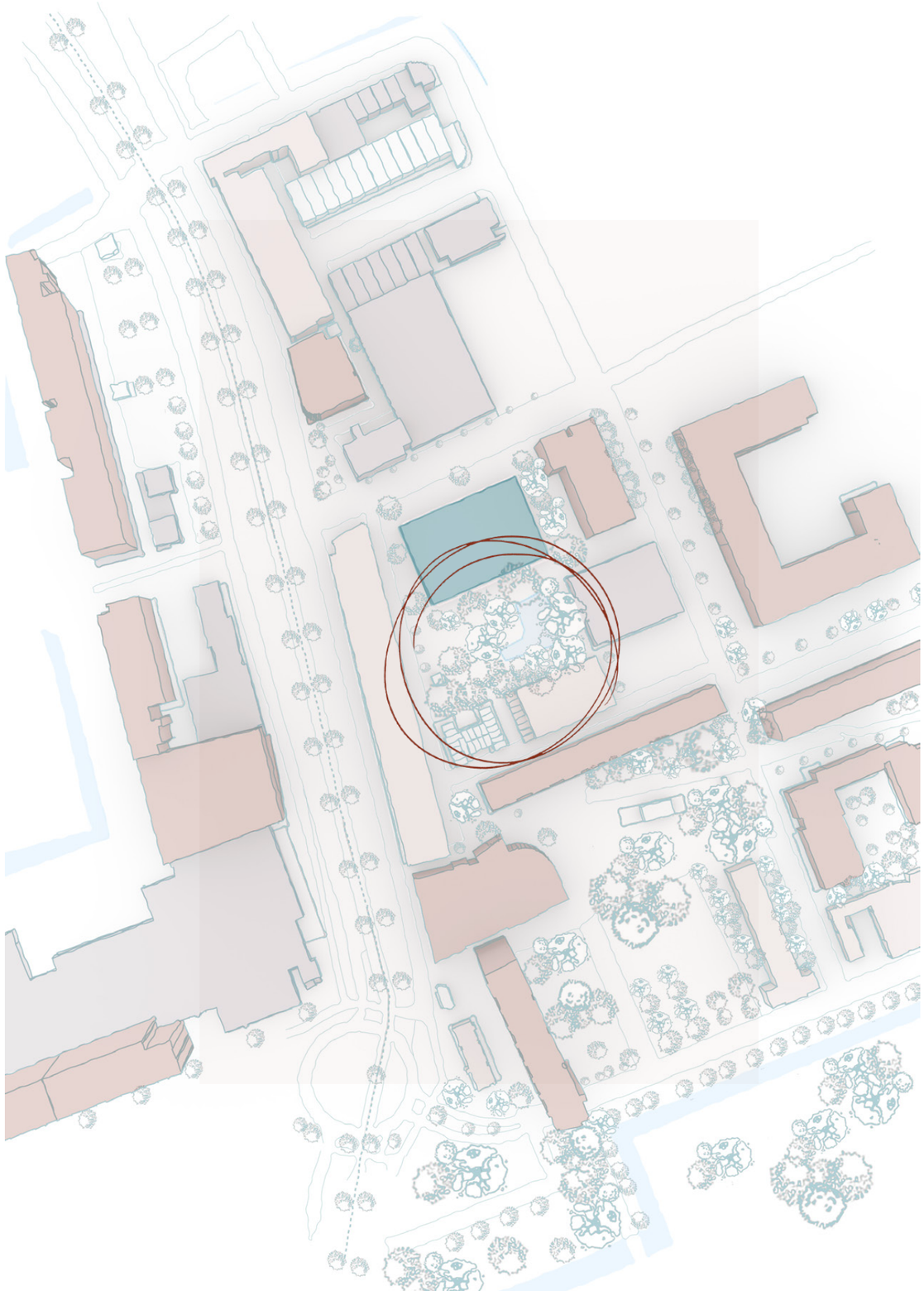


Fig. 39
Case Study - Site Location

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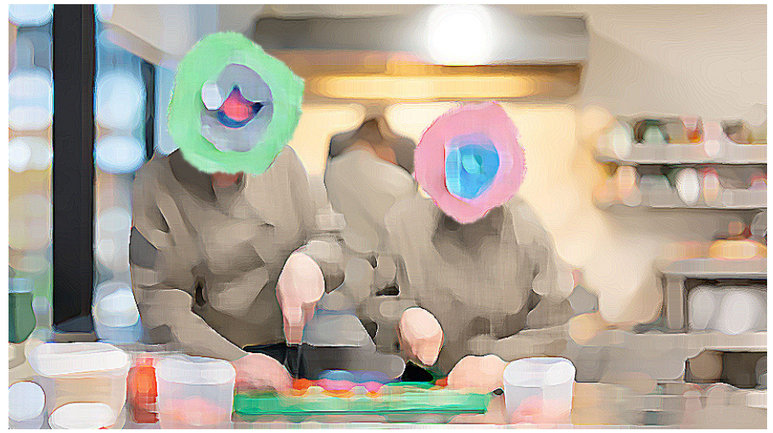
Fig. 40
Culinary activities (Image adapted from Ipse de Bruggen, n.d.)



privacy as further entry into the facility is not encouraged beyond this point.

Accessibility
While likely not a consideration throughout the original design of the office building structure, the facility has since been adapted to serve the many accessibility demands its target user group requires. Generally, the following accessibility considerations are visibly reflected throughout the building:

- clear and simple orientation and wayfinding in plan arrangement
- use of icon-based graphic language for signage - educational & useful for people who are not literate,
- use of hand bannisters & reseved seating to guide visually-impaired/ blind employees navigate the building without assistance,
- 2 universal bathrooms inclusive of a shower and all accessibility-friendly clearances and accessories (handelbars, supports, etc.),
- equipment suited for unhindered use by people with special needs,
- circulatory & door clearances that allow for passage of a wheelchair or other mobility device, and

ramp access at main entrance.

While clear effort is visible, and employees are clearly satisfied with the safe space provided, it is clear that the building exists as a succesful, renovation of a building not originally intended for the support of inclusive needs (ex: uneven floor finishes or changes in level at doorways). .

Location & Urban Placement
Located in an industrial/ residential area of the Voorhof district, the daycare centre sits in a quiet area, hidden from most vehicular traffic but highly trafficked by cyclists. Employees consist of local residents and people living in nearby municipalities who arrive by arranged taxis or bus programs, made possibly by its location adjacent to a major thoroughfare. Generally unassuming in its exterior, the facility tends to 'hide in plain sight', its inner functions a mystery to those unfamiliar with the Ipse de Bruggen organization. Though the gem of the site lies in the vastly generous rear yard belonging to the facility alone. Here users have room for gardening, chicken rearing, bike storage, and general relaxation.

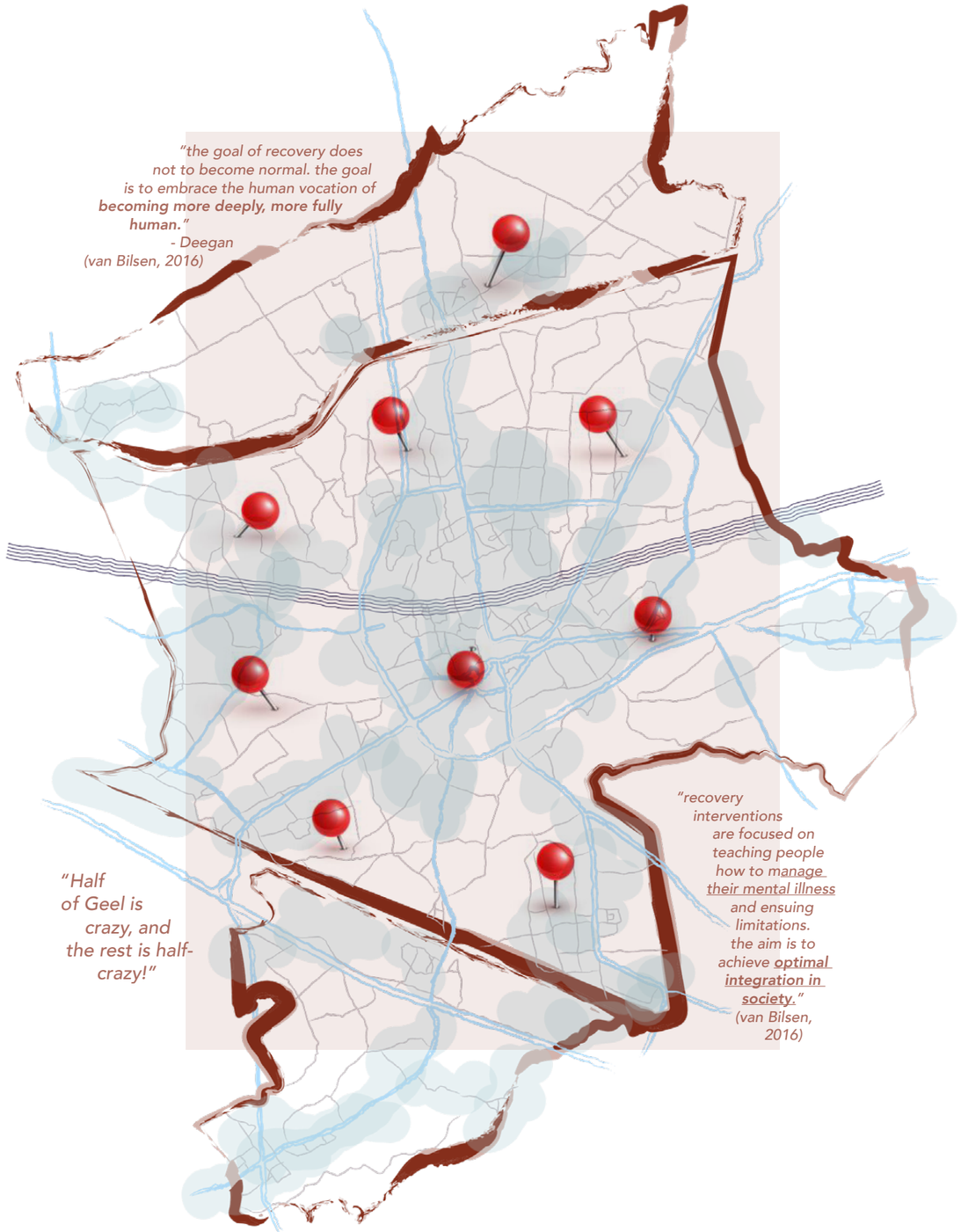


Fig. 41.
Map of Geel, Belgium (Own Work)

CASE STUDY 4 | Town of Geel, Belgium

A compelling case for dedicated Therapeutic Communities

According to a piece by H.P. van Bilsen (2016), the van Dale dictionary defines the term "**Geel**" as "Expression: bound to go to Geel, bound to come from Geel, to be mentally ill".

While, this definition may appear cryptic and unrelated at first glance, further understanding of the Town of Geel and the traditions it upholds would prove the three lines to be accurate in summarizing the three demographics residing there at any given time. A subject of global and medical fascination, Geel is best known as the 'oldest therapeutic community in Europe' (van Bilsen, 2016, p.207) – its remedial roots dating back to a 7th-century fable promising curative qualities for the mentally afflicted. This has in turn, manifested into an over 700-year old tradition of pilgrimages performed by the mentally ill and disabled (Jay, 2015), who, having exhausted all other options for care and aid, arrive to the town and are, rather immediately adopted into the homes of local families, as 'boarders' (Jay, 2015, para.1).

This socially-derived initiative, known today as 'the Geel model', the 'family care system', or the 'family foster care project', the subject of centuries of research and investigation, seems to owe its success to a combination of basic commonsensical practices and a 'slow cooker model' (van Bilsen, 2016). This being a process by recovery occurs not by demanding it through 'predetermined pathways and timelines', but instead by 'accepting what is and **inviting the patient to find their own and perhaps very slow path to better health**' (van Bilsen, 2016).

Due to the fact that access to related architectural and urban data is limited due to privacy considerations of Geel inhabitants and their adopted wards, analysis will be limited to the social structuring and urban integration of the 'family care system'.

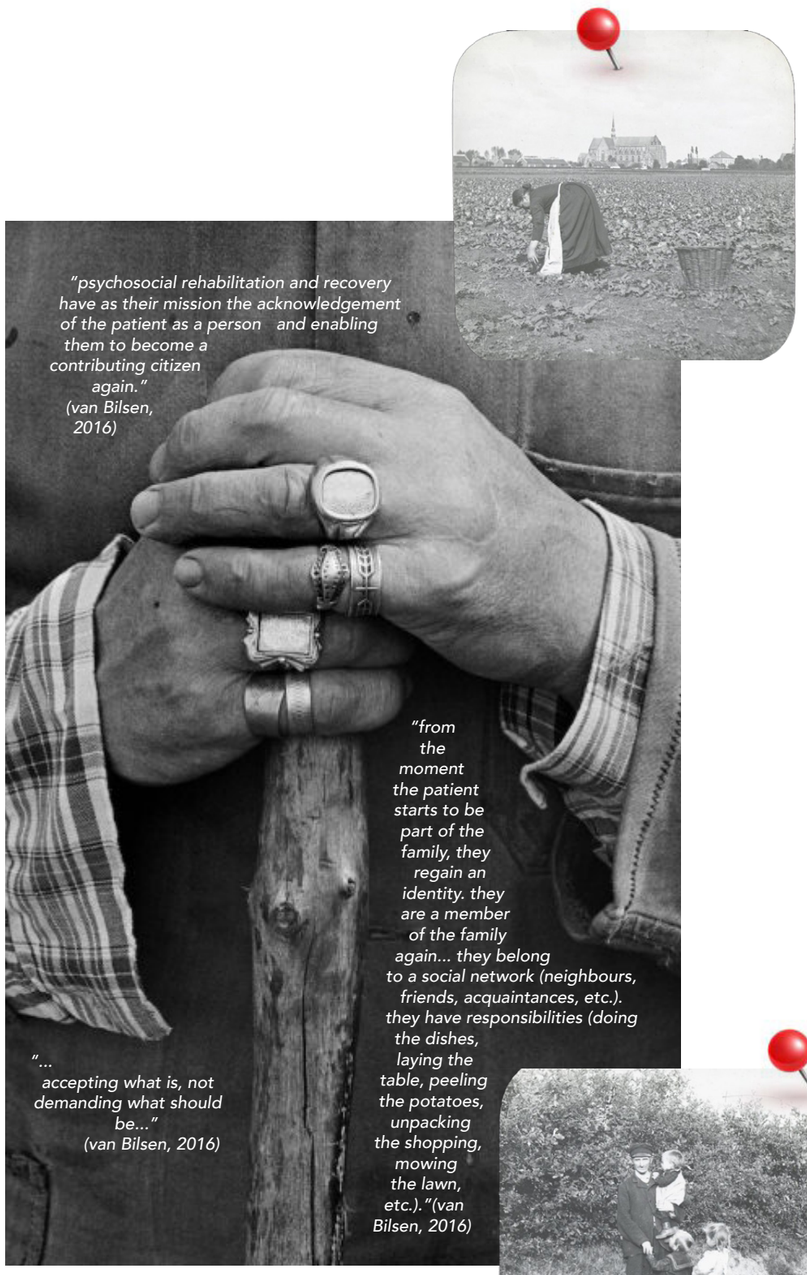


Fig. 42
Life in Image composition by Author, (Minnen, 2016)

"From a theoretical perspective, the community of Geel has created a learning environment whereby people with mental illness are exposed to as much 'normal' behaviour from others as is possible. This modelling of 'normal' will have an impact. (van Bilsen, 2016)

Urban Placement
As a city-wide program, this system is not limited to any one building typology, but relies instead on the building of a self-sustaining network – one that permeates the public/private boundary as it extends from the private residence to the social urban environment of the collective. Single-family homes, local businesses, farm fields, community centres, and an outlying hospital building make up this dispersed network of care, around which patients and caregivers co-exist harmoniously and move freely. With a population of approx. 40,800, Geel is a small rural municipality, consisting largely of farmland and suburban areas, with a city centre of mostly mid-rise buildings and shops. It is believed that 100 foster families continue to serve patients today (Geelse Gezinsverpleging, 2024).

Program
The modernized Geel model – operating under state and medical supervision since 1861 (Jay, 2015) – sees arriving patients as wards of the state seeking long-term guardianship in response to a lack thereof. Patients arrive and are fist admitted to the local hospital for initial clinical assessment. Compatibility is then assessed according to behavioural criteria (i.e., must be non-violent, capable of emotional connection and some degree of communication and independence), and if deemed suitable for family care, the admission procedure for placement with a foster family may begin. This involves a three-party system, by which a 'match' is only made with the combined approval of the patient 'boarder', the hosts, and the clinicians involved (van Bilsen, 2016). From here on, the 'boarder' becomes fully integrated into the families and outside communities, so much so, that typical placements are expected to last an average of 30 years to a lifetime (van Bilsen, 2016).

Foster families are made available on a volunteer basis – encouraged through a shared generational tradition of duty – and historically, have not been required to complete any formal medical or psychiatric training. The rehabilitative 'secret', as per van Bilsen, lies in the family's ability to 'cope logically with stressful situations' and provide a 'stable and caring home' for patients, with the hospital providing subsidiary expert support as needed. Though, as psychiatry evolves to include medicinal protocols in treatments, this is reflected in the family care program, as some level of nursing training is increasingly required.

Accessibility through Services
Available research indicates very little on accessibility within the built environment, though highlights social inclusivity as core to the town's values and operations.

Both parties are able to benefit from the guardianship model, as host families gain a helping hand and lifelong company (Jay, 2015), and patients are cared for and intellectually stimulated through skill-building, tackling domestic duties, and learning how to live in a shared space (van Bilsen, 2016). The state program offers additional daycare services, therapy services, and the option for supervised work programes with local businesses (Jay, 2015). Work is assigned according to 'age, skills and personal inclinations', and in addition to this, a dedicated team at the OPZ works to arrange entertainment, community clubs, and leisure and travel activities for patients to best cater to balance and quality of life. (van Bilsen, 2016).

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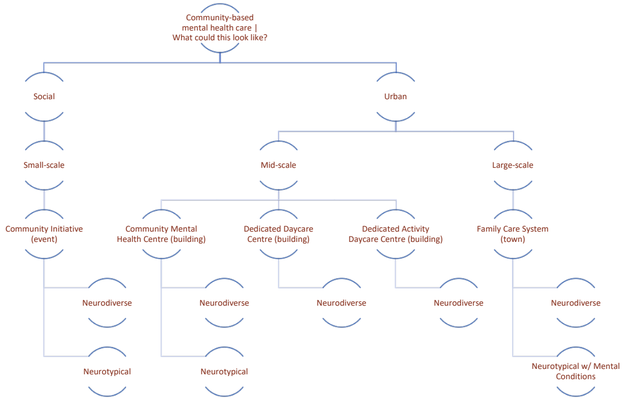
Note: pre-established icons are faded to highlight the concepts that have since been revealed.

CASE STUDIES | Discussion

While any of the aforementioned precedents have the indubitable capacity to valuably improve the well-being of the communities they serve, it is a matter of scale, both in services provided and degree of access it provides, that must be carefully considered when assessing the role of a mental care centre within a community. In each case, exclusive of Geel, there is a visible compromise in the need to 'fit' the services into the existing and developed context. This is limiting in terms of:

- amount of programs housed,
- types of activities (i.e, physical exercise) offered,
- quantity of people served,
- degree of public awareness they are able to demand, and
- access to wellness-promoting natural environments.

Ample space and greater focus on universal accessibility practices would prove beneficial for future Mental Health Support Centres and might eliminatethe need for separate buildings operating for neurodiverse or neurotypical needs and treatment, alone. Learning from Geel, we see that mental care can in fact be integrated within an urban plan, and that this begins in the private home, but moreso within the family/community structure. A 10-year investigation into the family care system found that patients benefit substantially from 'normal expectations delivered in an atmosphere of radical kindness and acceptance' (van Blisen, 2016). Being given the agency and support to learn, function and interact at their optimal level - no more, no less - in a 'normal' social world, patients of all kinds are capable of living confident and fulfilled lives.



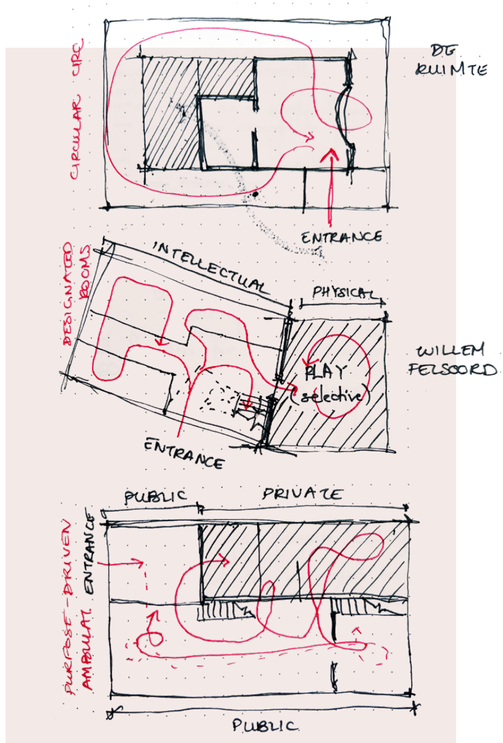


Fig 43.
Case Study Plan Logic - Analysis (Own Work)

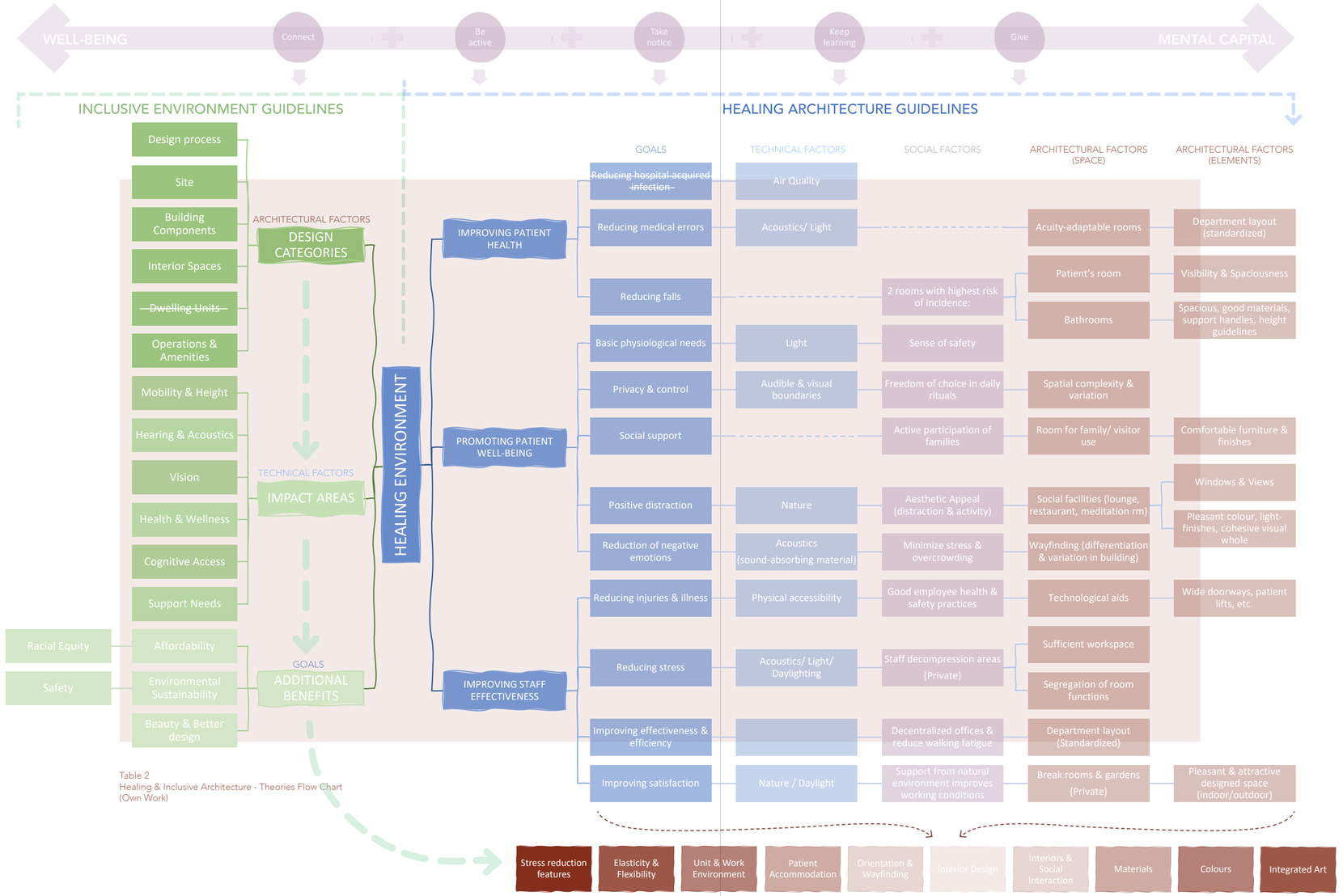


Table 2
Healing & Inclusive Architecture - Theories Flow Chart (Own Work)

3 SHAPING A *MORE* INCLUSIVE & HEALING ENVIRONMENT

Connecting Environment & 'Health'

It is a widely known that the state of one's surrounding environment impacts directly upon an individual's health, both at skin surface, and deep within it. Though, what was once limited to intuitive knowledge - a pseudo-scientific theory known intangibly through subjective experience and *feeling* - is today experiencing renewed credibility through its less-disputable grounding in evidence-based scientific study (Sosa, n.d., p.27). Generations of architectural canon have provided designers with a clear tool-set of components that, when crafted and combined, make for harmonious architecture and human experience, though the exact answer to the "Why" of it all has remained relatively unknown. This question, through contemporary research efforts, has been refocused through the lens of "*Well-being*" - more specifically, 'the effectiveness of specific interventions on the promotion of [user] well-being, [providing] insight into those factors on which a targeted approach should focus' (Aked et al., n.d., p.3). In spite of its reputation as a predominantly qualitative science, research pertaining to well-being in the environment is beginning to reveal consistent and affirming findings (Steemers, n.d., para. 3), sparking wide-acceptance and revision to the globally-accepted definition of *health* - now recognized as 'resulting from the interrelationships linking social, psychological, and medical factors' (Steemers, n.d., para. 7). More and more, studies are indicating that:

→ ill/good health is a direct consequence of environmental characteristics (i.e., overcrowding, air quality, poor lighting, etc.) (Steemers, n.d., para.16),

→ that health and wellness are interdependent, and as such rely on 'feelings of happiness, curiosity, and engagement' sparked by community engagement, a sense of purpose, and a sense of personal control (Steemers, n.d., para.16), and

→ that 'feeling good and functioning well' (Aked et al., n.d., p.1) ensures an individual's capacity for resilience, but is only nurtured within a health-promoting environment.

Rooted in these goals we find a blossoming field of new practical concepts, including the *5 Ways to Wellbeing*, and *Healing Architecture* - studies aimed at identifying, understanding, and competently wielding wellness promoting design tools to better shape spaces for improved life satisfaction. As in Steemers' own words: 'staying healthy in your own home and in your community is the way to limit the increasing pressure on health services, and thus designing the home, the neighbourhood, and work environment to improve health and well-being is an opportunity that presents itself.' (Steemers, n.d., para.17)

The Potentials of Space as 'Healer'

Industry professionals familiar with the term 'healing architecture' know it to be most often associated with **hospital design**, having first originated with the study of sanitation and environmental risks in clinical spaces (Sosa, n.d., p.27).

Since then, more specifically, since the 1980's rise of *Environmental Psychology* and *Patient-Centered Care* - contemporary schools of thought focused on **shaping the built environment to promote patient healing** - the concept has experienced a shift towards a more holistic philosophy. What is now known as the **'care process'** arrived hand-in-hand with the Evidence-based Design theory (Eb-D) as inaugurated by R. Ulrich with his experimental study that 'broke ground by proving a reduction in recovery duration and pain medication intake for patient in rooms facing a natural view versus those facing a brick wall' (Sosa,

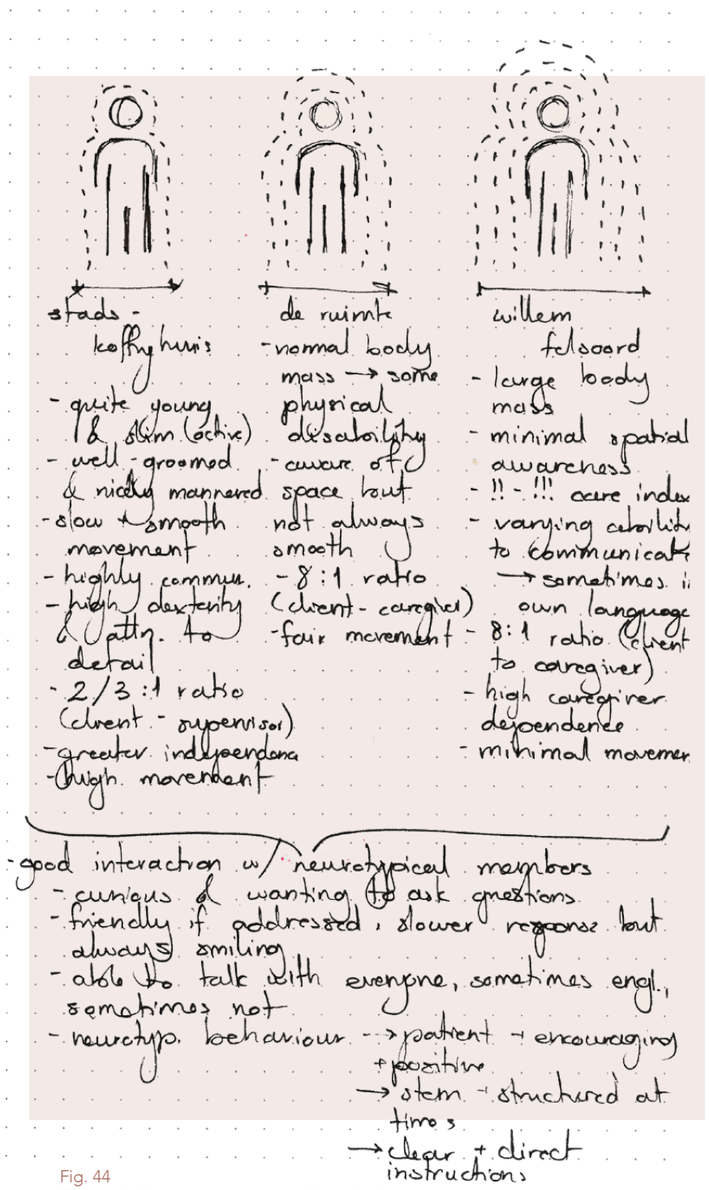
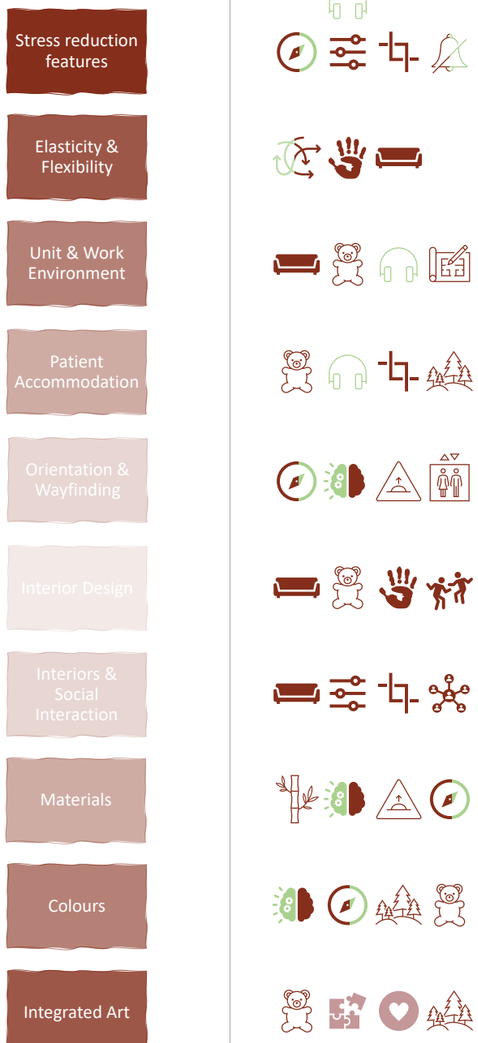


Fig. 44
Fieldwork Ergonomics Analysis (Own Work)



n.d., p.28). This documented breakthrough is cited time and time again as the moment which would validate the entire field of study and establish precedent for future investigations in the fields of neuroscience, psychology, and psycho-immunology (Herweijer-van Gelder, 2016, p.2). The resulting 'scientifically-proven findings redefined architecture for health with renewed knowledge, that:

- surrounding environments induce a psycho-physiological arousal,
- humans have a limited capacity for processing stimuli and information' (Sosa, n.d., p.28),' and
- 'health is **not an absence of illness,** rather, a **state of complete physiological, mental and social well-being**' (Herweijer-van Gelder, 2016, p.2).

While Healing Architecture related Eb-D research has typically been limited to medical and hospital applications, the resulting findings are universally informative and remain applicable to the general environment extending beyond the clinical setting. It has been shown that *health* touches on multiple human facets, beyond just that of the physical body, and that personal well-being is reliant on personal resilience, a state of body and mind bolstered by the presence of a health-promoting environment. As such, it must be argued that Healing Architecture - 'a process that ensures architecture develops to enhance human health' (Sosa, n.d., p. 27) - extends to serve the full diversity of human health, not just that of a recovering patient, and thus, move to inform all architecture within one might work, dwell, learn, gather, and grow.

Making Space 'Safe' for All

'The role our built environment has on each and every person's life cannot be overestimated. That's why it is so important that inclusion and accessibility is at the heart of all stages of design; if we're going to build a world where everyone feels welcome, safe, and valued.' (Wilson et al., 2023, p.10).

While Accessible Design Guidelines have been in official use since the 1960's (The Kelsey, 2023, p.7), it has since failed to see universal application; widely considered a rigid creative restriction, a liability towards permit approvals, and/or a costly and bulky after-thought intervention applied only when integrated according to demand (Kelsy, 2023, p.10). The reality is that inclusive design standards, are beneficial for all - responsible for shaping spaces that are well-connected and free of obstacles, offering support in optimal places where most anyone might benefit, and curating comfortable spaces suitable for any and all psychological and physical diversities. As per The Kelsey's supplementary *Inclusive Design Standards*, employing 'design standards that support access and inclusion not only keep [people] with disabilities safe but support overall community safety for all people in and around the building' (The Kelsey, 2023, p. 15).

Putting it all Together

Table 2 shows the breakdown of the various design theories mentioned, and the multiple commonalities they share in terms of observed issues and goals to be reached. By accepting diversity and disability-forward thinking as the norm, we allow ourselves to adopt a procedure that 'supports more efficient and equitable building development' (The Kelsey, 2023, p.10). Byaddressing the shared demands of *Inclusivity* and *Healing Architecture* requirements, the designer is able to immediately address issues of stress reduction, provision of disability aid, clear orientation and wayfinding, comfortable & soothing interiors, etc. into a seamless design.

Note: pre-established icons are faded to highlight the concepts that have since been revealed.

Discussion

Which of the various mental health conditions would be best served through early intervention care? What degree of care do these conditions demand?

A hindsight review of the first chapter's dive into mental health and neuro-diversities reveals an admittedly broad and widespread target group. One that consists not only of over 100 forms of mental, behavioural, and neurodevelopmental disorders, but that is further complicated by the reality that each individual case presents differently from another, and that conditions and disorders may appear unpredictably and indiscriminately - affecting anyone and everyone. As such, it is crucial to make clear that terms like Neurotypical, Neurodiverse, and Mental Illness/Disorder/Condition/Disability do not define segregating categories of people within a society, but rather delineate a dynamic spectrum along which each individual may fall and shift at any given point in their lifetime. As professionals have indicated, starting with one diagnosis does not confirm its permanence or limit its ability to evolve into another (better or worse), over time. The reality is that psychiatric care is an ongoing and ever-developing cycle of study and practice – a medical field that promises no single cure and does not start and end at the front door of a practicing clinician's office, but rather permeates all aspects of life beyond it. It is impossible within the course of this Thesis investigation to examine each diagnosable condition (p.22), identify, and respond to their varying needs, but a starting point presents itself in recognizing that:

- the onset of most mental health conditions is directly linked to external environmental factors,
- most of the currently leading conditions (i.e., anxiety & depressive disorders) observed globally (Fig. 2-3), begin mildly, and become exacerbated over time and through repeated exposure,
- access to resources and awareness through education increases chances of full recovery and wellness preservation.
- care and medical intervention applied in the early stages of condition onset 'ensures the capture and treatment of symptoms in young minds' and increases chances of high-quality living into maturity (Centre for Mental Health, 2016). This is applicable to severe psychotic disorders as well.

This research indicates that all neurodevelopmental and mental health conditions benefit from early recognition and intervention – as a matter of fact, the earlier the better. This statement is inclusive of severe conditions (i.e., depressive, psychotic, delusional, etc.), though the author recognizes with respect, that with greater severity comes a higher care and security demand, and while increased community and awareness and inclusion would prove beneficial in improving the quality of life of such patients, it is clear that not all facilities or community settings are appropriate for their safe medical treatment. That said, for those living with diagnoses and functioning in relative independence, the care demands are not so high or varied. Neurodiverse individuals – according to their special needs – may require increased physical assistance or repetitive and instructive guidance when moving or exploring new skills, and certain conditions will demand sensory adjustments (i.e., sound, lighting, crowding) to prevent overstimulation, but generally, the care level for medium to mild degrees of impairment does not differ greatly from those of a neurotypical individual.

What does the defined target group require in terms of support, therapeutic activities, and facilities to accommodate these?

There already exists a largely established

infrastructure aimed at supporting and providing care to neurodiverse/neurotypical persons seeking it. The problem is no longer one of lack of resources, but moreso related to a lack of supply for the ever-growing demand, and the fact that large-scale solutions are unable to adequately meet individualized needs. Effective treatments, supported by daily life practices, exist and are available to support-seekers, but are made largely inaccessible at the exact time of need due to high demand and staff shortages. As such, the increasing consensus within the healthcare sector is that by renewing a sense of duty and proprietorship within the small-scale community, preventive measures may be optimally enacted through early education for individual and group awareness, open communication, equal access, and the practice of a health-conscious and balanced lifestyle.

To reiterate the findings outlined in chapter 2, the specific needs identified amongst neurodiverse and neurotypical members of the target group are as follows.

For the **neurodivergent** individual...

Support

- **visual wayfinding and clear orientation** through signage, colours, and simple floor plans,
- a **designated quiet area** to cool down when feeling overwhelmed or over-stimulated,
- **minimizing sensitivity to sensory elements** (i.e., reducing light brightness, ambient noise, circulatory traffic, etc.) providing positive stimulation (i.e., fidget toys, pleasant smells, comfortable temperature, plants, etc.)
- the **possibility to control and change one's environment** (i.e., expandable or moveable furniture, multiple options for sitting & resting, sensory accessories like blankets, headphones, etc.)
- comfortable seating, as this is how most time is spent.
- comfortable and relaxed ambience, using natural colours and materials
- accessible spaces (i.e., appropriate clearances, heights of switches for wheelchair access, etc.)

Therapeutic Activities & Facilities

- a place where **real work can be performed.** Fostering a sense of purpose through daily routine, participation and interaction.
- proximity/ access to **natural environments** for well-being.
- room for **play & discovery of new skills,** crafts, and techniques. Place to create.
- **universal spaces to share** with people of all sorts.
- spaces to perform **sales or service** responsibilities.

For the **neurotypical** individual...

Support

- accessible spaces to support physical or mobility issues (i.e., appropriate clearances, heights of switches for wheelchair access, etc.)
- healthy environments (i.e., acoustics, exposure to daylight, comfortable and natural materials)
- unobstructed sightlines and intuitive building navigation (see p.55)
- multi-functional use of spaces, and ample space to perform a variety of creative activities.
- room for physical activity and stretching.
- access to affordable in-person or virtual services, for people with limited mobility, free time, and financial restraints
- accessible location through public transit

Therapeutic Activities & Facilities

- spaces that promote community interaction & gathering – to combat loneliness.
- a variety of dedicated mental health services (i.e., peer support, 1-on-1 counselling, group meetings, etc.)
- immediate and accessible clinical and non-clinical support to combat daily stressors of life. Inclusive of financial advice, job training, tutoring, etc.).
- informal gathering spaces to relax and gather – restaurant, café, library, etc. room for play & discovery of new skills, crafts, and techniques.
- a recognizable location for all to feel safe and welcome.

How can architecture and the built environment be used to shape a more inclusive and healing environment?

Informed by evidence-based research and design practices dating back to R. Ulrich's initial findings in the 1980's, the concepts of the Healing Environment, and more specifically, Healing Architecture are ripe with practical recommendations for designing and informing a built environment that puts at the core of its purpose, maintaining and improving the health and wellness of the human experience within it. Healing Architecture, fundamentally founded on observations gathered from hospital design and operations, has revealed the critical importance of mitigating stress and negative emotions, improving the efficiency of daily interior functions, and providing a sense of autonomy and control to recovering patients, and has further revealed architecture's role in promoting or restricting these things. By then adding into consideration the evidence-based recommendations towards making this same environment universally inclusive, these three ultimate goals are only further bolstered and reinforced. As, what is beneficial for the most vulnerable in our communities, is equally beneficial to the most capable. Ultimately, by approaching urban and architectural design with inclusivity and healing guidelines at top of mind, the resulting spaces and surrounding environments are sure to inform an inclusive and well-being centered community from the ground up. Applying this procedure might look something like this:

1. Assess and its possible access points. Orient the building to promote natural views, minimize solar loads and glare from daylighting, and maximize visibility of main entrances for incoming visitors.
2. Arrange the interior programmatic functions according to both employee and visitor/patient needs. Decentralize employee offices to provide greater access while minimizing walking fatigue, and allocate moments of privacy in which employees are able to rest. Provide visitors with clear and legible wayfinding signals and accessible paths of travel to easily navigate and arrive at their desired destinations.
3. Design for sensory and physical comfort - with relaxed and soothing interior finishes, natural features, ample daylighting, restorative views, and minimized traffic.
4. Disperse areas for congregation among areas for privacy to offer moments to de-stress within highly social settings.
5. Make spaces and travel in and around them comfortable and safe for all types of bodies and minds. Minimize obstructions, provide necessary support accessories, and promote spaces where all can exist together, equally.

relevant elements for an informed

urban

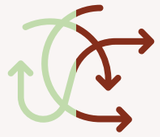
an icon in the neighbourhood

equal opportunity to learn/work

accessible transit options

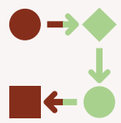
accessibility / inclusivity

universal accessibility



flex & adaptive space

legibility (wayfinding)



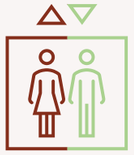
segmented spaces

control of acoustics

decompression spaces

a space of safety & security

eliminate floor obstacles



direct access/ minimize fatigue

focused mental treatment

comfortable lighting

height guides/ restrictions

accessibility aid/ tool

& sensitive architecture ...

space

access to natural environments

standardized floor plan

privacy/ personal enclosure

employee rest/ break room

opportunity for environmental control

room for movement

opportunity for gathering

interiors

furniture as space divider

natural & honest materials

personalization/ creative express.

comfort & homeliness

social

prevention through resiliency

early detection & intervention for youth in crisis

a sense of purpose

step-by-step guidance

structure & routine

Fig 45
Community Hug. Image adapted from "*Brothers and Sisters*" by Illustrator Tommy Parker. (Own Work)

REFLECTION

Reflecting back on the research conducted throughout this phase, this author is struck by the sheer wealth of knowledge and mental health-centered resources that exist, pertaining to both the medical and architectural design fields. The matter of the global mental health crisis we find ourselves situated in, is clearly a universal fascination, and a problem that most concede is in need of proper resolution. Progress is undeniably ongoing - as is seen in the conquering of social stigma of the past 20 years - though it is slow-paced.

Mental health and daycare facilities exist, though this research has found them to be too small and too few - doing wonderful work and providing excellent support where they can, but unable to extend their services beyond their own organizational capacity. In this same line of thinking, in spite of their inclusive and care-forward philosophies, these facilities appear to operate formally in a way that segregates the neurodiverse treatment from that of the neurotypical. It should be stated that this is an observation, not meant as criticism, but based in the reality that the care needs of the two populations are so great and so dependent on these facilities, that the type of care provided becomes entirely concentrated on a focused target group, so as to provide better dedicated access to those in need. Universal and inclusive guidelines have existed for decades, and are succesfully used today to improve experiences of mobility in and around the built environment, though the social experience through which the combined needs of the neurodiverse and neurotypical populations might be met and hosted together in an intermingling manner, appears to be neglected, in this author's opinion. The neurodiverse and mentally ailing are encouraged to exist and engage among the daily lives of the general populations, though they do so in an wider environment that was originally designed with them considered as 'other' to the norm. Further investigation is required into how these target group needs might be equally combined in future designs, though this research presents a first investigation into possible needs and methods of designing in response to them.

Thank you for your attention.

GLOSSARY OF DEFINITIONS

Decentralization the trend to relocate patients with chronic mental illness from long-term institutionalization, usually at government hospitals, to outpatient care in community-based residential facilities. (APA, n.d.)

Neurotypical describes someone who thinks and processes information in ways that are typical to within their culture. They tend to learn skills and reach developmental milestones around the same time as their peers. (MediLexicon International, n.d., para. 1)

Neurodivergent describes the wide range of neurological functioning that exists among humans and the many ways human brains differ from each other. Classical definitions of neurodivergence include diagnoses of autism, ADHD and dyslexia (etc.). (Princing, 2022, para1)

BMH Behavioural and Mental Conditions. (Card et al., 2023)

Mental Disorder characterized by a clinically significant disturbance in an individual's cognition, emotional regulation, or behaviour. It is usually associated with distress or impairment in important areas of functioning. Mental disorders may also be referred to as mental health conditions. (WHO, 2022, para. 1)

Mental Illness refers to a wide range of mental health conditions - disorders that affect your mood, thinking and behaviour. Examples include depression, anxiety disorders, schizophrenia, eating disorders and addictive behaviours. (Mayo Foundation, 2022, para. 1)

Intellectual Disability involves problems with general mental abilities that affect functioning in 2 areas; intellectual functioning (such as learning, problem solving, judgement), and adaptive functioning (activities of daily life, communication and independent living). (American Psychiatric Association, n.d., para. 1)

Lexicon autonomy, control, inclusive environment, diversity, de-institutionalize, free movement, clarity,

Disability a temporary or permanent condition likely to show up at any time of everyone's life. (Schelings & Elsen, 2017, p. 1)

Healing Architecture evidence-based design concept based on assumptions that space and spatial qualities of the built environment have positive impacts on users occupying that space and the practices unfolding within (Simonsen, 2017p. 5). Designing to promote patient healing and well-being through the following guidelines; home-like environment, access to views and nature, light, noise control, barrier-free environments, and room layout. (GEZE, n.d., para. 8)

Recovery-oriented Practices a means of promoting, through design, user recovery during hospitalization. Recovery is the "achievement of an optimal state of personal, social, and emotional wellbeing, as defined by each individual, whilst living with or recovering from a mental health issue." (NSW Health, 2022, para. 1)

Inclusive Design methodology that aims to remove the barriers that create undue effort and separation. It enables everyone to participate equally, confidently, and independently in everyday activities. (CABE, 2023, p.3)

intervention, recovery, prevention, community, active coping, stimulation, loneliness, destigmatization

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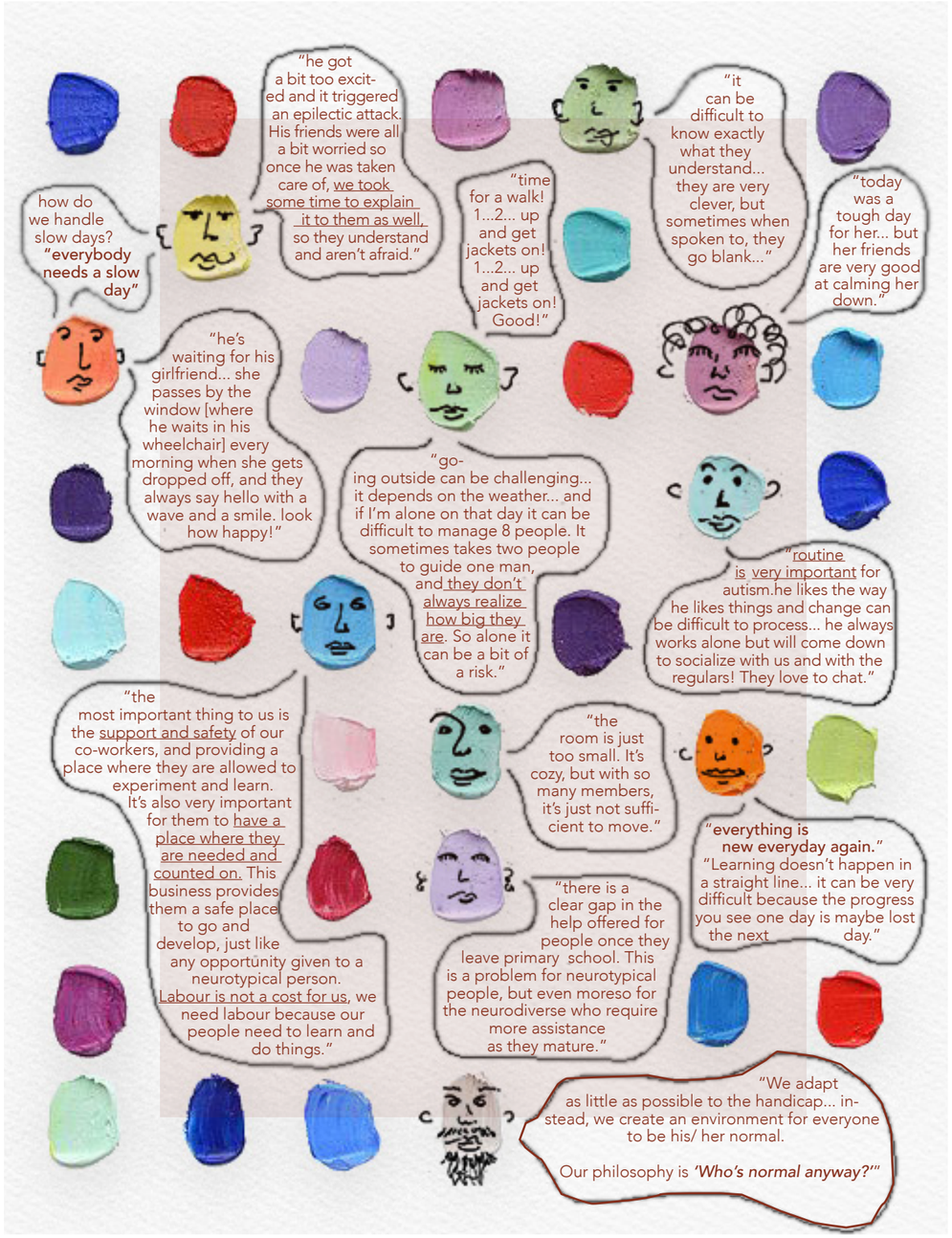


APPENDIX A.

Let's talk about Neurodiversity

Interviews w/ Industry Professionals
To gain informed and accurate insight into the daily lives and needs of key target group members (young adults, both neurodiverse and neurotypical), it was imperative that this research seek out various specialized professionals working within the Mental Health and Special Needs' industries. 4 formal interviews supported by 10 informal conversations were carried out over the span of several weeks. The findings from 3 interviews are transcribed as follows (a note that transcripts are limited to reflect handwritten notes).

Willem Felsoord Dagactiviteitcentrum - A conversation with a Daycare Manager

Q. Tell me a bit about the Dagactiviteitcentrum. What types of clients do you serve here?

Clients first join the daycare center at age 18, and ages can range up to 65 years. There are 2 groups served, in terms of mental maturity. This includes people in the mental age range of 0-18 months, and those in range of 18 months - 5 yrs.

There is a clear gap in the help offered for people once they leave school (in this case, primary school). This is the case for neurotypical people, but even moreso for neurodiverse community members who require more assistance as they mature.

In a standard school for children of pre-pubescent years, the teacher to student ratio is approximately 1:3. For those 18 years and older, the teacher to student ratio increases to 1:7. This is with the idea that students are able to become more independent as they grow. But here, at the activity centre, we average a 1:8 ratio in our groups. Our Art Classes see a 2:14 teacher to student ratio, and both teachers are not always present at all times.

Q. In terms of practical matters, how do clients arrive to the activity center everyday? Is there a specific arrangement?

Arrival to the facility is organized and generally supervised by someone at all times (clients do not arrive at the facility alone or of their own capability). We have parents who drop off their children, and we also have designated school buses arranged to transport clients in groups. This caters to our range of clients, both those who live locally and those from neighbouring areas. As a daycare center, a typical day lasts from 9:00 - 15:00 and there is a daily scheduled morning drop-off and afternoon pick-up. Clients do not stay longer than this.

Q. What does it mean to work with people with special needs? What sorts of activities fill up a typical day?

Everything is new everyday again.

On top of this, the Client's needs vary everyday - the challenge becomes ensuring that they are able to learn and be stimulated everyday, at all times if possible. Learning doesn't happen in a straight line, especially when working with those who have a lower learning

threshold. Repetition is extremely important for this reason. The work is rewarding but can be very difficult, because progress is possible, but the progress you see one day, maybe continues into the next, and then might be completely lost the day after that.

This is especially difficult for parents and for caregivers (us) because you work so closely with the patients that you become deeply invested, understandably so. And this shows sometimes in getting your hopes up and wanting to push them (because they need to be pushed), but then having to step back because your expectations were maybe too hopeful, realistically.
Parents want this because they want their children to have the best possible life as they age and are possibly more and more difficult to support. Parents become very invested, understandably.
Caregivers want this because they care and it's their life's purpose to educate, care for and support their charges as much as possible. But slow or no progress is very difficult, always.

Q. It sounds quite complicated. How do you adapt to the Client's changing needs everyday if you're not sure what to expect each morning?

We use the LACCS program. This is a program/ tool for assessing people with severe intellectual or multiple disabilities (EVMB) to ensure their quality of life day-to-day. It concerns 5 areas: physical well-being, alertness, contact, communication, and stimulating use of time.

This method allows caretakers to assess their client at all times, everyday, to determine how they are feeling, their wellness, and whether progress might be possible that day. We have to look at them carefully... what do we see?... Did they sleep well?... Are their clothes dirty from yesterday?... Are they responsive to us?... And from there, we have to determine how much they are able to do that day... how much we can demand... how much they are capable of participating. And we must accept it. There is no forcing them, but we must understand their position.

Q. How are clients in terms of communication? Are they able to communicate? Are they willing to interact with others (caretakers, family, each other, strangers, etc.)?

Considering the mental maturity, a large percentage of our members are mostly or completely non-communicative. More communication is possible in the advanced group, but speaking english, for example, is not realistic.

That said, their communication is very pure. We will never hear the exact words from them as most are non-communicative, but if you know how to read them, you learn a lot about exactly what they want. And, those who can communicate, are themselves, just as honest. They don't hide or keep secrets if asked properly. It just takes time and interest to know them, observe them, and understand them.

Q. Do you offer different types of programs for different groups? Is there a specific type of therapy or activity that you use for treatment or education of people with varying degrees of disabilities?

The most important thing is to keep all members actively stimulated, because without this they cannot progress or develop further. But this includes a large variety of examples. Activities performed here, we try to keep honest. For example, if they are doing "work" work, we try to make sure it has a true purpose behind it.
In the past, clients were able to count and package objects (like bolts for Gamma) and these would then be given to the company to sel. But now with automation, the company no longer needs this service. Because clients were trained in this way, we didn't want to remove the activity, because they get stimulation and purpose out of it, but the act became untruthful to them.

For example, they would package the bags, and then we would go behind the scenes to unpackage them, put them in containers again, and then give it to them to do once more. They wouldn't know the difference, but the lie feels completely unfair and unethical to them. So for this reason, we try to stay honest and upfront with them when choosing tasks and activities that fill their days and give them purpose.

Our activities are more focused on play than "real work"- these are reserved for various other Ipse de Bruggen facilities. Our facilities work in a sort of "roof-tile system", they stack on top of each other, based on skill, mental ability, and scale of personal progress. Clients will start here at 18, and then have the potential to progress to more advanced work-type programs (i.e. De Ruimte). And from there, it"s even possible to progress to real world work.This is our hope for all of them.

End of Interview

Brownies & downieS Cafe - A conversation with Upper Management

Q. Tell me a bit about your organization. In your own words, a bit about who you are and what it is that you do.

Who we are...
To begin, the term "downies" has a certain fondness to it, in our use and also in Dutch culture. It is not viewed as derogatory in our culture, as it might be understood by native English speakers, so I just wanted to say this right off the bat.

A bit about us... the Dutch education system is quite well organized up until a student reaches 18 years of age. After this it gets quite complicated; there is no formal organization and no exact company that exactly fits the needs of someone with a special handicap. The founder of Brownies and downieS worked in the special education sector and observd this. He was concerned with this question of: 'Why don't we have a place for these kids after 18 yrs? why don't we make one?'

He also happened to have a restaurant background and decided to combine this with his special education experience. In doing this, what he discovered was that, in fact, there were not very many considerations needed to make this idea a reality. What is mostly needed is **an atmosphere where these kids are able to feel welcome, safe, and is slow-paced enough that they don't feel rushed or unnecessarily stressed.**

Now today, we have 59 restaurants as part of our franchise, all over the Netherlands.

What we do...
It's important to be clear that, this is not a hobby, it's a business and it's run like a business. **As a business, we want something that is lasting and has mileage to it**. For this reason, it's important to us first to make sure that we have a good restaurant - this is the key to our business and social model, because in fact, it is a good restaurant. But, it is also a a care company.

The way it works in the Netherlands, handicapped people do not need to work. What they do need is care and education. But, *Work* is considered a role played as part of the *"real"* world, and they do want to participate in this. We want to give them this opportunity, and we want to challenge them. The thing is, "new" for people with Down Syndrome [or other mental/ intellectual disabilities] is different, challenging, and complicated. So this is a big driving consideration.

"People know us, they like us... We are known for good food, nice environment, and doing something special."

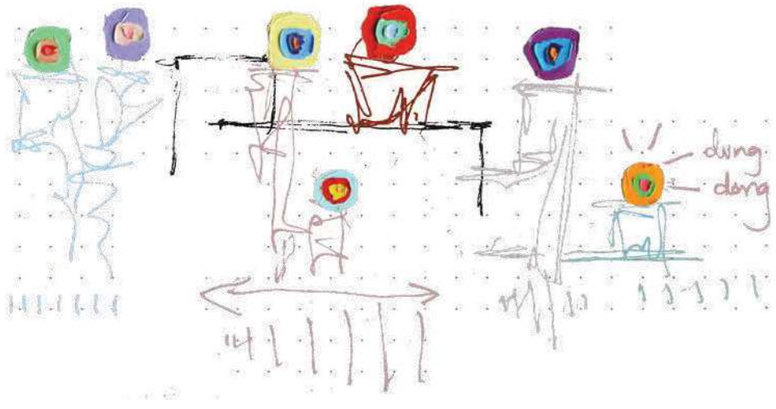
Q. Can you tell me a bit about the different types of people it takes to run a business like this? Any special considerations there?

Parents are a very influential group in our business. Beyond this, as part of our 2-sided business, we have Chefs hired for the restaurant side, and Caretakers hired for the care company side. These are people with the appropriate education who are trained to help and recognize the needs of our employees.

As a business we try to adapt as little as possible to the handicap. We operate by the philosophy of "**who's normal anyway?**", and instead we create an environment in which everyone can be his/ her normal. The most we'll do to adapt involves changing the names of menu items if they're too complicated for our employees.

The most important things for us to consider are:

i. the **support and safety** of our co-workers, and
ii. providing a place where they are allowed to **experiment and learn**.



It's also very important for them to have a place where they are **needed and counted on**. [Brownies and downieS] provides them with a safe place to go and develop, just like any opportunity that we would see given to a neurotypical person. The best case scenario, in our mind at this organization, is that people would no longer need Brownies and downieS, and instead society would have built enough infrastructure and support for them to just exist like any person.

Q. You make an interesting point about how "in a perfect world, B & D wouldn't exist". I'm curious, especially with 59 franchise locations, if your organization has to adapt to any special considerations when you choose a new location to develop. Are there any practical things you have to adapt to when situating your restaurants? I understand that over-stimulation and over-crowding can be a risk for certain hanicapped people, and I imagine it can be rather confronting at times. Is this a concern?

It's not uncommon for us to engage in some form of confrontation, for visitors and for employees. **But confrontation is good, we need it, I think.** Sometimes people will walk in, not knowing what we do, and will have a confrontation. But mostly, people know about us and like what we do.

The reality is, at times it does get over-stimulating for our employees. There are some busy days and we do not avoid this. For example, on King's Day it can be very busy on the streets and we can have lots of customers in the restaurant. These days are really a challenge and we can't manage it everyday. But, like any restaurant, throughout the week there are slow and there are busy days. From a business perspective, it's important to have a balance of both, otherwise the business does not thrive. And we want it to thrive.
So, on busy days, the chain managers must assess who specifically, is capable of work and who isn't. The chain managers know their employees well, and based on this assessment, they might recommend to those who are more sensitive to go home early, or to stay home that day.

Like I said, the chain is made up of separate franchises but they are each carefully looked at by each location's dedicated care personnel. From the management side, over the year, the parent company looks at each restaurant and its activity, and we provide support and guidance wherever we see it's needed. We also have a general care team who will visit each location of the chain and provide additional support and training, so we're up-to-date as a Team.

It's very important to always manage the ratio between caretaker and clients. All lunch rooms are arranged to have as close as possible to an equal balance, so no one is lost in the shuffle.

Q. I read in an interview you had with Out-of-Home that you mention the importance of customization. This idea was also mentioned to me at by several other Daycare Supervisors - the need to assess someone's moos and adapt to their varying abiltiies day-to-day. How you do manage this? How do you decide how to fill a busy day vs. a slow day?

First of all, **everybody needs a slow day.** Right?

Like a regular restaurant, we adapt by trying to maximize efficiency. And from the Brownies & downieS perspective, we look at labour differently from a regular restaurant. For example, on busy days, if we know in advance that it will be busy, we prepare by ordering pre-cut vegetables instead of uncut vegetables. Doing things like this allows for a smooth flow of labour, so some days we provide more and some days we provide less.

"Labour is not a cost for us, we need labour because our people need to learn and do things."

Q. Can you tell me a bit about your employees? Is there a selection process when it comes to "hiring" or are you able to accept everyone at all times?

No we are not able to accept everyone, is the short answer.
There is a delicate balance within a franchise's team. Each location will look at their employees and their individual capabilities, and assess what more they can handle as a team. This allows for room for someone with a more severe handicap at each restaurant.

Q. How about employement periods? Are your employees full-time and do they work with you for long-term periods?

What we offer is most often long-term employment. Sometimes people do ther jobs alongside this one, for example, working or spending time at other Daycare Centres.

Life expectancy for handicapped people has been extremely lengthened in recent decades. What was orginally into the 20s is now into the 60s - this is much longer than what was historically expected in the past. **So now, a whole life is left and has to be spent in a happy, useful way**. We are also, now, more aware of what people are capable of doing with these conditions, so we can respond with the proper opportunities.
It's important to realize that in our business, **our clients are not our employees so we cannot make them work**. For this reason, it's impossible to standardize this. Everyday we have to assess the situation and just make the right choices with what we have.

Q. As an architecture student, I'm very curious about the design of your restaurants. I would love to hear about the design process involved here - does the design differ between different locations? Or do they follow a specific formula?

It's impossible to standardize this, so therefore, not every restaurant is the same. It also depends on the available space, if you visit different locations, you'lll see that some are in old buildings, and some are in brand new buildings. There is no "one-size-fits-all" approach.

Q. Do you work with specialized architects or designers to do this?

Yes, we work with the same architecture firm, since the beginning, and with each new franchise location. They know us well and they know exactly what we need, so it's nice to

have that familiarity and not have to start fresh with every new project. There are 59 of them after all. We are now working with the firm to finish a design philosphy booklet that will be made universally accessible to all franchise members. But this will remain private to the company, we have no plans to publish this publicly.

Q. So, what can you tell me, if anything, about the design and inclusivity guidelines and considerations involved in the design of your restaurants?

Not much is done spatially. But we do follow the same colour guidelines. There are lots of greens, browns, natural colours, and green plants and decorations. The atmosphere is of a laid-back environment.

Acoustics are also very important, and maybe the key thing that is controlled in the design and construction of each restaurant. A space cannot be echoey or harsh-sounding. It must use soft materials, acoustic ceilings.. that kind of thing. There is also a designated "quiet place" in every restaurant. Yes. **And truthfully, there is nothing there. And that's okay too**.

Otherwise, for inclusivity/ accessibility, whave unique and accessible cash registers [and tablets] for our employees to lean from and use independently. We also use stickers, graphics, and labelling to make things legible and understandable for them. It's not uncommon for employees to not be literate, **so everything is arranged to be very visual**.

Q. And then, in terms of physical accessibilty, do you design for mobility issues, wheelchairs, walkers, etc.?

Yes, that is also designed in the space. And as a result, what we've noticed is that we have a largely elderly customer base. What's interesting is that they share similar needs to those of our employees. They can easily use the space, and don't want too much distraction. They also want a cozy, laid-back environment to spend time in. **We want to be real, and this brings us to a very special community.**

Q. I've heard from other sources that sensory experiences are crucial to people with mental and intellectual disabilities' perception of space. As this something that you use to help with designing any of your cafes?

Not much beyond the use of colour and acoustics. We don't often keep toys, games, or fidget objects at our restaurants as these are things that are personal to the employees, soo they will bring them themselves. They are very personal objects, and it's more hygienic this way.

Q. Any advice regarding the potential design of an inclusive community center?

We try to work like a well-oiled machine, and we assess and observe all of our restaurants to make sure they work this way. As a result, it kind of happens that this **becomes the "living rom of the town"**. We constantly need to organize things to keep our employees going, but at the same time Brownies and downieS works by itself, you don't really have to encourage people to go there. **It's special, so people come**.

End of Interview

2.1.3 Registered Psychotherapist A.M. - A conversation with a Licensed Practitioner

Q. So, to start off, I'd love to hear from you what your current impressions are, as a professional in the mental health care industry. What can you tell me about what you've seen and how the industry is moving in response to this?

Starting off, I want to say that all of these initial observations are spot-on. In general, in psychology, we see that the Scandinavian countries are more advanced in mental health treatment. And what we're also seeing is that the future for mental health is multi-disciplinary. Mental health is individual mental health but it's also a combination of culture, it's functional medicine, and it's lifestyle medicine. You can't separate mental health from the rest of the body. You can't separate mental from the body just as you can't separate the body from the environment. They are tied and connected, and they inform each other. This is a continuous process which is in fact a response to one's environment.

I have the privilege of going to various conferences and seminars pertaining to psychiatry, so I'm able to see and learn directly about advances and changes happening in the industry. What's most important now is the trend we're seeing in which the care needs to fill the gap between doing and knowing. We've been successful in eliminating the stigma towards mental health in the past 20 years, and people are more keenly seeking out mental care, which is wonderful to see, but now we're seeing a move away from talk therapy alone… this is what I mean about bridging the gap between knowing and doing.

Advancements include recovery facilities today which are about helping people get into action. So it's not just about talk therapy. We are learning that it's about the body, and the physical state of well-being. This includes sleeping, and eating… for example, we now know that an Anxiety disorder may be because of consuming sugars… Depression can be from having no food control… and then we also have the food addictions. These are just 3 examples related to one's diet and the relation of body and mind through the foods ingested.

As a caregiver, it's also important to properly differentiate between people who have a lot of access to their own consciousness and people who don't. What does this mean? This includes people who are unable to act in self-preserving ways… so, think addiction. Being sober is one thing, and involves one way of existing and behaving, but being drunk or drugged… you don't see the person or the identity behind the haze. It's another mode of existence, and this has to be understood and recognized to be properly treated, you cannot get through to people in this mindset. How do we then also differentiate and create spaces for these people who need caregivers, or don't need dedicated caregivers. An example would be the Alzheimer City prototype being used in Europe, in Sweden, I think. This is essentially a simulation for patients to live normally, and their caregivers can then go and live with them.

We are also seeing VR coming into the field. A tool which is effective as exposure therapy for phobias, any kind of phobias. It is used in a shared space with the therapist [as a guide] but also in a secondary reality, so it creates a lot of safety for the person undergoing the therapy.

Q. It's really great to hear that there are so many interesting progressions happening in the psych field outside of the actual therapist's office! To center our focus a bit, my research scope is looking at the young adult as the target group of interest. My research has identified this group as being specifically under-served as they happen to fall in-between childhood/adolescence where they are cared for, and proper adulthood where they must care and advocate for themselves, and as such have a tendency to fall between the cracks. What can you tell me about this?

This, once again, is spot on. In the psychiatric field we actually talk a lot about this idea of the "emerging adult". A lot of research has been done on this subject, so maybe you can look in this direction as well. As you've mentioned, this is an especially vulnerable period for many aged 16-26 or 30 years, as people within this demographic sort of unanimously share a feeling of being "thrown into the world and not knowing what to do." As a result, they tend to experience a feeling of no support – a belief that "I cannot connect", and this is where community and connection become so important. There is definitely a need to explore how this care can be further opened up into a community, to address the feelings of isolation.

Q. Are there any specific treatments that you know of that are specifically helpful for this age group and demographic?

Well, this brings me back to the earlier idea of introducing the body in therapy.

This might include Somatic Experiencing, which involves talk therapy and sitting with one's emotions, and doing breathing exercises through it. So the goal is going more into the body, and training the physical responses to stressors as well as the mental.

There is also the IFS technique, so Internal Family Systems, which involves guiding an individual into their inside world to understand the different personalities they are composed of. But, now making it even more dynamic by entering the field of Dialectical Behavioural Therapy.

In general, we are heading in the direction of a more holistic view. This might include having patients bring a yoga mat to their sessions, and using yoga practices for trauma treatment, through breathing and stretching. The question is no longer if but how eclectic therapy will be in the future.

This extends also into online sessions! We are moving towards walk-and-talk therapy, which actively incorporate nature into sessions. As you may now, there is a ton of research supporting the presence of nature as being healing and that just by looking at it, alive and beautiful, our well-being improves. These walk-and-talk sessions can be virtual or in-person, so it's flexible. It can involve you and I being across the world, connecting only by audio (no visual) and, telling each other about what we see, and how we feel in the setting, and expanding the treatment to outside of ourselves.

Q. This is fascinating, and especially great to hear, considering that I am indeed, interested in designing my facility (whatever it will be) within a park.
I'm curious then to get your input on what you might want, as an industry professional, to see from a mental health support center like the one I'm proposing. I'm thinking to include

quiet spaces for talk therapy, ample space for activity-based therapies, access to the outdoors, and spaces that support people with varying intellectual and physical abilities as well. It's sounding like a lot already, but in your opinion, is there anything I'm missing here?

You know, I have to admit that as a professional being asked this question, my advice is given through selfish intentions. I can't help but be selfish here when I tell you that my greatest guiding advice to you would be "don't focus on just one diagnosis, focus on inclusivity."

I know you're familiar with the ICD-10 medical classification system for various psychological conditions. This is a book for clinicians who are trying to understand the human mind. This is a tool for people like me – it's legible to anyone who wants to read it, but it's a tool for my practice. And the thing with tools is that they are limited to being a tool. Humanity is not limited. Labels, as prescribed by this tool, are restrictive and one-dimensional.
We understand the diagnoses and the labels, and then, we move away from that the see the human beneath them, and the human only. It's important to see beyond the condition. Go beyond, make space accessible to everyone, and this is how you create inclusivity [and awareness… and acceptance].

The diagnosis is the first step, it equals an initial "understanding of me". And then, we guide the patients to understand the steps, and then, we guide them to practice the steps. You are not your diagnosis, so it's very important to do the work and extend your existence beyond the limitations present within the confines of any given diagnosis. Pretty much everything and everyone is on the spectrum. We generalize, but in seeking and providing treatment, you need to understand and know the person underlying the treatment and the condition being treated.

Q. I'm curious then, in terms of seeking to expound inclusivity unto the various treatments for various conditions, and in trying to make this an accessible building, do you know of any mental health or intellectual conditions/ disorders/ illnesses who's treatments can be combined? Is it possible to do a group therapy session for people of all different conditions, or do they require to be grouped according to condition?

This is an interesting question, and to be honest, I haven't come across research on the mixing of treatments and conditions. So, in short, I don't know. But I do find it interesting.

I do know of procedures where we have 1 individual whose treatment is given by a circle of care – this includes various doctors/ professionals serving one person, who consult together within a network. This can be a team of psychotherapists for example, it doesn't matter how many, but in essence, it's a group working within and towards the same goal.

What's interesting and should also be noted is that people can evolve in their diagnoses. So, they can start with the signs and symptoms of ADHD, and over time this can progress into identifying as depression, which might then transform into anxiety, and so on so forth. Then the question becomes, why and how does this happen? Anyway, in the end, it doesn't matter what you call it, what is important is that you still have to do the work. As long as you invest the time and effort into the work, you are unbeatable.
So going back to your question of how to address inclusivity for the various conditions and handicaps, my advice to you is to look at how you do the integration. Don't overlook it [the

differences], acknowledge it and highlight it. People with mental and intellectual disabilities differ from us mainly in their level of care requirements. They need care, perhaps more than us, because they don't have the same safety principles a neurotypical person does.

Members of the neurodiverse community have so much vitality. They are precious to our society in that they bring vitality to all of us who don't have the ability or freedom to afford it in our day-to-day lives. This is the humanity behind the disability, and it deserves to be highlighted, recognized, and integrated into our world.

We don't all need to be the same, sameness is boring!

End of Interview

APPENDIX B.

Reflection questions for a Person with Special Needs (Engels)

QUESTION 1: In general, how would you rate your mood?
- Happy all the time
- Happy some of the time
- Not happy

QUESTION 2: Do you like spaces that are light or dark?
- Light
- Dark
- Why do you like this?

QUESTION 3: Do you like loud noises?
- Yes, I like loud noises.
- No, I don't like loud noises. They bother me.
- What kind of noises bother you most?

QUESTION 4: Do you like when places have smells (ex: food, perfumes, etc.)?
- Yes, I like when there are good smells.
- I don't mind if there are smells. I don't notice.
- No, I don't like to smell anything.

QUESTION 5: What kind of temperature do you like in spaces?
- Warm
- Cold
- I don't mind.

QUESTION 6: Do you like to move a lot when you're at work?
- Yes, I am always moving. I like to be in new places.
- Sometimes I move, sometimes I like to sit.
- No, I don't move a lot. I like to stay in one spot.

QUESTION 7: Do you like climbing up or down stairs?
- Yes, I like it, I like being active.
- No, I don't like it, it makes me tired.
- I don't mind.

QUESTION 8: Do you like being in spaces with a lot of windows?
- Yes, I like looking outside. I like to see things happening.
- Sometimes I like to look outside, but not always. Sometimes I like to be in quiet dark spaces.
- No, I don't like to look outside. Seeing too much activity makes me tired.

If you answered **Yes**, what do you like to see outside of windows?
- The city
- Nature
- People
- Animals
- Other…

QUESTION 9: Do you like working with other people?
- Yes, I like to have company.
- No, I like to be alone.

QUESTION 10: Do you like meeting new people?
- Yes, I like to make new friends.
- Sometimes, I like to meet new people.
- No, I like to spend time only with people I already know.

QUESTION 11: Do you like having activities to keep you busy?
- I like to be busy.
- I sometimes like to be busy.
- I don't like to be busy. I like to have lots of free time.

QUESTION 12: Do you like working with a routine everyday?
- I like the same routine everyday.
- I like to change my routine sometimes.
- I like to do new things everyday.

QUESTION 13: At work, do you like your space to be arranged specifically?
- Yes, I like when everything is in a specific order, defined by me.
- I don't care.
- No, I don't like things to be arranged specifically.

QUESTION 14: Do you like to learn new things?
- Never
- Sometimes
- All the time
- What is your favourite thing to learn about?

QUESTION 15: Do you ever get tired or stressed when working?
- Never
- Sometimes
- All the time
- What do you do or where do you go when this happens?

QUESTION 16: What is the best part of your day when you come to work? What makes you the most happy?

QUESTION 17: What is the worst part of the day when you come to work? Is there anything that upsets you?

QUESTION 18: What is your favourite thing to do when you're not at work?

QUESTION 19: Do you have a favourite colour?

QUESTION 20: If you could paint 1 wall in this restaurant, what would you paint on it?

QUESTION 21: What is your favourite space in the restaurant?

QUESTION 22: Is there a space in the restaurant that makes you feel uncomfortable? Why?

QUESTION 23: Do you ever feel confused when you're walking around the restaurant? Or do you always know where you're going?

QUESTION 24: Do you like being outside? Do you ever feel stressed when you're walking around in the city?

Reflection questions for a Person with Special Needs (Nederlands)

VRAAG 1: Hoe voel jij je in het algemeen?
- o Altijd vrolijk
- o Meestal vrolijk
- o Niet vrolijk

VRAAG 2: Hou je van plekken die donker zijn of juist veel licht hebben?
- o Licht
- o Donker
- o Waarom vind je dit prettiger?

VRAAG 3: Hou je van harde geluiden?
- o Ja, ik hou van harde geluiden
- o Nee, ik hou niet van harde geluiden. Ik vind ze vervelend.
- o Wat voor soort geluiden heb je het meeste last van?

VRAAG 4A: Merk je het wanneer je omgeving een duidelijke geur heeft?
- o Ja, ik merk het (Yes, I notice)
- o Alleen wanneer het een heel erg sterke geur is
- o Nee, ik merk het niet (No, I do not notice it)

VRAAG 4: Zo ja, vind jij dit prettig?
- o Ja, ik vind het prettig wanneer ik het lekker ruikt.
- o Het interesseert me niet wanneer ik iets ruik
- o Nee, ik vind het niet prettig om iets te ruiken

VRAAG 5: Wat voor temperatuur vind je prettig?
- o Warm
- o Koud
- o Het maakt me niks uit

VRAAG 6: Vind je het fijn veel te bewegen wanneer je aan het werk bent?
- o Ja, ik ben altijd in beweging. Ik vind het fijn in veel ruimtes te komen.
- o Soms vind ik het fijn om te bewegen, soms vind ik het fijn om te zitten.
- o Nee, ik beweeg niet veel. Ik vind

VRAAG 7: Vind je het fijn om op en af van de trap te lopen?
- o Ja, ik vind fijn, ik hou ervan om actief te blijven?
- o Nee, ik vind het niet fijn. Ik word er moe van?
- o Het maakt me niks uit

VRAAG 8: Vind je het fijn om op een plek te zijn met heel veel ramen?
- o Ja, ik vind het leuk om naar buiten te kijken en te zien wat er buiten gebeurd.

o Soms vind ik het leuk om naar buiten te kijken, maar niet altijd. Soms vind ik het ook fijn om in het donker te zitten.
o Nee, ik vind het niet leuk om naar buiten te kijken. Ik wordt moe van kijken naar alles wat buiten gebeurd.

Zo **ja**, wat zou je graag naar willen kijken wanneer je uit het raam kijkt?
o De stad
o Natuur
o Mensen
o Dieren
o Iet sanders, namelijk…

VRAAG 9: Vind je het leuk om met andere mensen te werken?
o Ja, ik vind het leuk om gezelschap te hebben.
o Nee, ik ben liever alleen.

VRAAG 10: Vind je het leuk om nieuwe mensen te ontmoeten?
o Ja, ik maak graag nieuwe vrienden.
o Soms vind ik het leuk om nieuwe mensen te ontmoeten.
o Nee, ik ben het liefste met de mensen die ik al ken.

VRAAG 11: Vind je het leuk om activiteiten te doen die je bezig houden?
o Ja, ik vind het fijn om bezig te blijven.
o Soms, vind ik het fijn om bezig te blijven.
o Ik vind het niet fijn om bezig te zijn. Het liefste heb ik veel vrije tijd.

VRAAG 12: Vind je het fijn om met een routine te werken iedere dag?
o Ja, ik vind het fijn om iedere dag dezelfde routine te hebben.
o Ik vind het fijn om af en toe mijn routine te veranderen.
o Ik doe het liefste iedere dag iets nieuws.

VRAAG 13: Op het werk, vind je het fijn als alles zijn eigen plekje heeft?
o Ja, ik vind het fijn wanneer ik zelf alles een eigen plek mag geven.
o Het maakt me niets uit.
o Nee, ik vind het niet fijn wanneer alle seen eigen plek heeft.

VRAAG 14: Vind je het leuk om nieuwe dingen te leren?
o Nooit
o Soms
o Altijd
o Wat vind je het leukste om iets over te leren?

VRAAG 15: Word jij wel eens moe of gestressed terwijl je aan het werk bent?
o Nooit
o Soms
o Heel vaak
o Wat doe jij wanneer dit gebeurd?

VRAAG 16: Wat is het leukste moment van de dag wanneer je naar het werk komt? Waar word je het meest gelukkig van?

VRAAG 17: Wat vind je het minst leuke onderdeel van de dag wanneer je naar het werk komt? Is er iets wat jou overstuur maakt?

VRAAG 18: Wat vind je het leukste om te doen wanneer je niet op werk bent?

VRAAG 19: Wat is je favoriete kleur?

VRAAG 20: Als je een muur in dit restaurant mag schilderen, wat zou je erop schilderen?

VRAAG 21: Wat is jouw favoriete plek in dit restaurant?

VRAAG 22: Is er een plek in het restaurant waar je je niet prettig voelt? Waarom?

VRAAG 23: Voel je je soms verward wanneer je door het restaurant loopt? Of weet je altijd waar je naartoe loopt?

VRAAG 24: Vind je het fijn om buiten te zijn? Voel je je gestrest wanneer je door de stad loopt?