

# The Danish digital driving force

How Internetpsykiatrien is pioneering in digital mental health

Psykiatrien i Region Syddanmark



# In the past decade, Denmark catapulted to the forefront of remote mental health solutions.

With a new digital infrastructure, many telehealth solutions rapidly developing and, thankfully, a wide array of citizens adopting this new approach to healthcare.

Like many other nations, the country faces a growing healthcare challenge as its population ages and the number of chronic patients grows. In the context of mental health, rates of depression and anxiety, particularly among young people have been rising.

So, many things are the same. What makes the Danes different? Why are they successfully driving change?

Some say it's politics, as the challenges created a wave of political momentum. Which resulted in a centralised approach to remote healthcare, an approach that can certainly be seen as the backbone of the accomplishments.

But, as in every story of success, there are many factors that contribute to sustainable change. This white paper focuses on one case that ticks a lot of boxes.

Internetpsykiatrien (the clinic for internetbased therapies) – situated in the southern region of Denmark as a part of the Centre for Digital Psychiatry – became a flagship initiative, demonstrating how evidence-based treatment could be delivered digitally without sacrificing quality. This document explores their growth, not just in scale, but also in operational approach, patient engagement and clinical vision.

Politicians looked at the situation and realised... in 10 years, we won't have sufficient healthcare professionals, so we have to do something.

## Digital health in Denmark

Having the right intention is one thing, but how did the Danes manage to bring their vision to practice?

## A national digital health infrastructure

Between 2011 and 2015, Denmark took significant steps toward integrating remote healthcare into its healthcare system. The large-scale implementation of digital health solutions during this period revealed the need for effectively managing and sharing data. This led to a focus on standardizing IT infrastructure to support digital healthcare nationwide.

One cornerstone of this transformation is the adoption of the Continua Health Alliance standard, which provides a national framework for telehealth devices. This standard ensures interoperability and has paved the way for nationwide initiatives such as telepsychiatry. Remote areas, such as Denmark's many islands, particularly benefit from these advancements, as they reduce travel time and provide accessible care.

## Internetpsykiatrien at the Centre for Digital Psychiatry

In 2013, the Centre for Digital Psychiatry was founded in the Region of Southern Denmark. It focused on easy and equal access to mental healthcare and nowadays houses multiple projects and platforms for treatment, research, development and implementation.

Riding the wave of digital change, the centre launched two digital mental health services in 2016:



## Self-help wellbeing platform Mindhelper

A free and anonymous service that aims to develop and embed a culture of self-care in Denmark. It offers early interventions to help people before mental health issues escalate.



### Online therapy platform Internetpsykiatrien

An online clinic that offers digital, text-based treatment for mild to moderate depression and anxiety. Treatment is free and a referral is not required.

The initiatives established the Centre for Digital Psychiatry as a hallmark for digital mental health in the country.

We want to realise the Danish health reform's vision of a full scale digital front door approach in Denmark.

Marie Paldam Folker,
Managing Director at the
Centre for Digital Psychiatry

Denmark is divided in 5 healthcare regions and the digital clinic in the Southern region was followed with much interest. In 2020, all regions agreed on a continued partnership model to build on Internetpsykiatrien's success and expand the concept nationally.

With Mindhelper also available across the country, a comprehensive mental health ecosystem began to take shape. This system matches individuals with appropriate guidance while freeing up resources for those requiring more intensive support.

## Regional to national: scaling digital psychiatry

A challenge during scaling was ensuring consistency across Denmark's healthcare regions. The team worked to standardise procedures, build infrastructure, and train clinicians to deliver care effectively within the digital framework. Dr. Ulla Damgaard-Sørensen, clinical lead at Internetpsykiatrien, noted that success in scaling relied heavily on data to demonstrate demand and impact. "We started with meetings with five regional representatives [...] building the model step by step, showing the need and what we delivered."

The COVID-19 pandemic underscored the importance of remote care solutions, but the country was not going to cut corners: this data-driven approach was essential for securing additional funding and support.

The approach was successful: digital evidence-based treatment for anxiety and depression is now available throughout Denmark, without requiring a GP referral. Patients can apply themselves and start treatment within 30 days, after an assessment. On top of that: treatment is free, unlike the existing system where referrals to psychologists carry a fee on behalf of the patient The approach has not only reduced wait times, but also provided convenient access to care for underserved populations.

By now, we provide services for thousands of patients with around 100 people.

Thomas Lambertsen Binzer, Product Development and Innovation Lead



Marie Paldam Folker
Director at the Centre for
Digital Psychiatry. Responsible
for the strategic application of
digital mental health
interventions in a regional and
national context.



Thomas Lambertsen Binzer
Product Development and
Innovation lead who oversees
the development of new digital
interventions and tools at the
Centre for Digital Psychiatry.



Dr. Ulla Damgaard-Sørensen Clinical Lead for Internetpsykiatrien, with over ten years experience of working in forensic settings in England as a clinical psychologist.

## A different way of working

A critical factor in the success of Internetpsykiatrien is its workforce: onboarding and training are essential to work digitally and ensure high-quality care. Apart from the intake assessment, all communication with the patient is in writing. Not having to schedule face-to-face talks allows for greater flexibility, but the written approach also requires a different skillset.

## **Designing change**

Change is challenging and takes time. Next to that, Danish culture is strong on workforce ethics and the idea of being together. This explains why the way of working at the Centre evolved organically, driven by collaborative effort, sound methodology, and a clear clinical vision.

The process began with addressing foundational needs, such as replacing outdated referral processes. Screening procedures were also built from the ground up, enabling systematic data collection and streamlined patient pathways. Every change was thoroughly tested and validated before scaling.

Externally, the success of Digital Psychiatry grew organically: "word of mouth went very fast. Even though it was self-referral, general practitioners were picking up on the fact that we were free and available."

## A young workforce

One of the unique aspects of the organisation is the significant number of newly qualified (healthcare) professionals that are drawn to job opportunities at the Centre. This brings both challenges and advantages: while these young clinicians may lack experience, their openness to new ways of working allows for smoother integration into digital-first care.

They need robust guidance though. Which is why new employees get a two-day training while onboarding and are peer-trained by a mentor

It didn't happen in a coerced or controlled way. We didn't sit down five years ago and say, 'Now we will implement this.' Instead, we built a methodologically sound system alongside the team.

during the first 2 months of employment. Training emphasises the importance of a strong therapeutic alliance in a digital setting. Clinicians learn to engage patients effectively, maintain professional boundaries, and manage risks. These skills are complemented by technical training on the platform's tools. This includes monitoring pre- and post-treatment measures with the PHQ-9 & GAD-7 and responding to automated alerts for high-risk cases. The team is currently designing a skills development model, that'll further formalise professional growth.

**Tracking outcomes over time** 

Beyond real-time monitoring, longitudinal data plays a crucial role in evaluating the long-term impact of digital mental health interventions. Patients are assessed at multiple points, including at the end of treatment and three months post-treatment. These follow-ups provide valuable insights into the durability of outcomes, such as symptom improvement, return to work, or other life changes.

The team recognises the importance of not just collecting data but also making it meaningful. For example, patient progress is tracked alongside demographic factors to explore patterns and refine the care models in place. This focus on longitudinal outcomes ensures that the system continuously learns and adapts.

Patient satisfaction is measured through standardized tools like the Client Satisfaction Questionnaire (CSQ) and the Working Alliance Inventory (WAI): "we've included feedback at the end and also at three months [...] it's an extraordinary story because they're overwhelmingly satisfied and show sustained improvement."

## Setting clinicians up for success

Ultimately, success in digital mental health depends on clear expectations and consistent support. Dr. Damgaard-Sørensen stresses the importance of a structured framework, both for clinicians and patients, to ensure clarity and accountability: "a good clinical interaction has a firm beginning, a firm ending, and a very sound, clear contract about what is going to take place." This philosophy extends to the training and onboarding of clinicians. By providing a clear pathway for skill development and creating an environment where they feel supported, the organisation has managed to not only attract but also retain a young, motivated workforce.



## Patient flow at Internetpsykiatrien



Application is screened

Invitation / reconfirmation / rejection

□3 Videobased assessment interview

Clinical decision making

Treatment (including 1 optional video consult)

+

Follow questionnaire after 3 months

## Designing online interventions

Through the years the Centre of Digital Psychiatry has grown their expertise of developing and delivering digital interventions. They develop their own modules in the content management system (CMS) of Minddistrict.

'This system is essential for my team,' says
Thomas Lambertsen Binzer. 'We initially tried to
translate an existing module of the Dutch
platform into a Danish variant. But that didn't
work well. There were too many differences in
culture and approach between the Netherlands
and Denmark. As well as legal requirements
being different between the two countries.'

### Importance of relatability

Over time, Danish clinicians took charge of content creation, ensuring alignment with the Cognitive Behavioural Therapy (CBT) framework while making materials relatable and accessible for a Danish audience. Recognising the importance of relatability, the team created diverse personas to guide the modules. These personas represented a range of ages and experiences, ensuring users could see themselves in the material.

Lambertsen Binzer's team focuses on getting that right, through surveys they make sure that the content is user friendly and relevant. Dr. Damgaard-Sørensen suspects that they'll take tailoring to a next level in the future, using advancements in technology: "an assignment somehow needs to match someone's situation, and I think AI will give us many more options in this area."

### A consistent journey

When the time came to upgrade the first set of interventions, things had changed: budget was now available and graphic designers were brought in to help out. This led to a recognisable



style of branding – Dr. Damgaard-Sørensen calls it 'the red thread' – in every step of the digital client journey. Not just within the digital health platform, but also on the publicly accessible landing pages and materials.

"It's identifiable. The same elements, the same colours. It's about the fact that you can go anywhere on the website or in any of the programmes and just know what it belongs to." The approach builds attachment and continuity, it's central to both brand and healthcare experience.

## Programs for other target groups

The first and second generation of interventions offered at Internetpsykiatrien, are built around existing CBT protocols and have been vetted by experts. They offer interventions for depression and anxiety and tailor to an adult target group.

However, it doesn't stop there. With Coolminds, aimed at adolescents, and new interventions for Binge Eating Disorder, the team sees potential in digital interventions for other target groups.



Coolminds is a program specifically designed for adolescents aged 12 to 17. It initially focused on treating anxiety through transdiagnostic approaches.

Content development for this age group required significant adaptation using relatable scenarios and simplified language to engage younger users effectively.

"We've completed an RCT for Coolminds [...] it's for anxiety, and we're expanding to offer the same for low mood and sadness. The youths today are challenged significantly by learning to be and cope with a complex world"

These tailored interventions are grounded in CBT, to ensure the evidence base, but also integrate elements like interactive exercises and gamification to sustain engagement.





## **Intervention for Binge Eating Disorder**

Addressing binge eating disorder required a similarly customized approach. This 20-week intervention combines digital modules with structured guidance to help patients understand and manage their behaviours. Content for this program emphasizes non-judgmental psychoeducation and practical strategies for self-regulation.

The team sees a lot of potential in this population: "this group is very amenable to writing."

The target group is small, but the results are strong: data indicate high engagement and significantly positive outcomes, showcasing the potential for future expansion.

### Clinical research 101: what is an RCT?

A **Randomised Controlled Trial (RCT)** is a type of scientific study used to test the effectiveness of a treatment or intervention. Participants are randomly assigned to a treatment group and a control group.

By comparing outcomes between these groups, researchers can determine whether the intervention produces a meaningful difference.

## Expanding to blended care

The text-only approach of the programmes at Internetpsykiatrien has a lot of advantages, as the results show and as was proven by a scope analysis at the Dutch University of Twente (see spotlight below).

But it's not for everyone.

Dr. Damgaard-Sørensen would be the first to admit that:

Some people need something more to keep them motivated. And the more isn't just more modules, the more isn't just more writing, but the more is something you build with them. So that they get sufficient help to align with the goals of treatment. You could say that the 'more' is more of a relation. And this makes sense. People with more complex realities and severe mental health disturbances need more intensity. This could be combined in a blended format with writing and sessions with the clinicians or in more traditional forms with the therapy relationship at the core.

Each year, a significant number of applicants are rejected, because they don't have the profile suited for text-based therapy. As the system evolves, there's a growing interest on blended care models that combine digital and face-to-face elements, to service these more complex cases.

I want to explore if the people we didn't see because we deemed them too complex, really went on to get help the help we recommended. If we can show that they didn't – and my hypothesis is that they didn't – and some maybe got worse. [...]

If we expand on the concept and develop more comprehensive clinical services in a blended format, I think they will actually do very well. But you need to work harder at the alliance and you do that by setting up a foundation which enables them to commit.

## The Therapeutic Alliance in Text-Based Digital Psychotherapy

The <u>compassionate technology</u> project, at the University of Twente, explores the possibilities of putting compassion first when designing technology for mental healthcare.

The project included a scoping review that suggests that a good therapeutic alliance can be established in digital psychotherapy through text-based communication, and shows support for a positive relationship between the alliance and treatment outcomes.

## Engagement and adherence: finding the right fit

One of the central challenges in remote mental healthcare is ensuring that patients remain engaged and committed throughout their treatment. For Internetpsykiatrien, ensuring patient commitment begins with identifying the right target group and setting clear, realistic expectations about treatment from the outset.

## Importance of clarity and suitability

The program primarily serves patients with mild to moderate anxiety and depression: a group that benefits significantly from cognitive behavioural therapy (CBT). The structured, evidence-based framework of CBT suits the format of digital interventions very well.

It's a cognitive behavioural therapy model. We're not doing anything more or less... the evidence is very firm on mild to moderate anxiety and depression: CBT works.

It helps that people can apply for the program through self-referral: they are often motivated and actively looking for help. Still, not all potential patients fit the model when it comes to a digital, text-based approach, which is why engagement starts with a screening process. During this stage, clinicians evaluate not just symptoms and needs, but also the patient's readiness to commit to the digital format. This helps identify cases where the patient's expectations or circumstances might not align with program demands.

Setting clear expectations is a cornerstone of the program's success. Patients are made aware of the commitment required before they enter treatment, including the importance of staying

active and completing assignments:

"we're very open about what we demand. It's about ensuring they understand that this is like going to the gym... a muscle you need to exercise regularly."

## **Building accountability**

Once enrolled, patients are supported with a clear structure designed to keep them on track. Modules are broken into manageable chunks, each with defined goals and summaries to guide progress.

However, even with a well-matched target group, motivation can waver. Digital programs require patients to take an active role, often engaging with self-guided exercises and communicating primarily in writing. To prevent drop-out, the program employs a proactive approach, with psychologists monitoring activity closely and intervening early when engagement drops.

"If you're not writing in seven days, your psychologist will start prompting. If they know you well, they might start at day three or four."

Dr. Damgaard-Sørensen's words show another important aspect of engagement: knowing someone well. A significant part of adherence revolves around the therapeutic alliance - even in a digital setting. Trust, reliability, and a sense of connection are just as important in text-based

therapy as they are in face-to-face interactions. It's useful to note that the earlier mentioned research of the University of Twente shows that text-only therapy does not hurt the quality of the therapeutic alliance, it just changes the way the alliance develops.

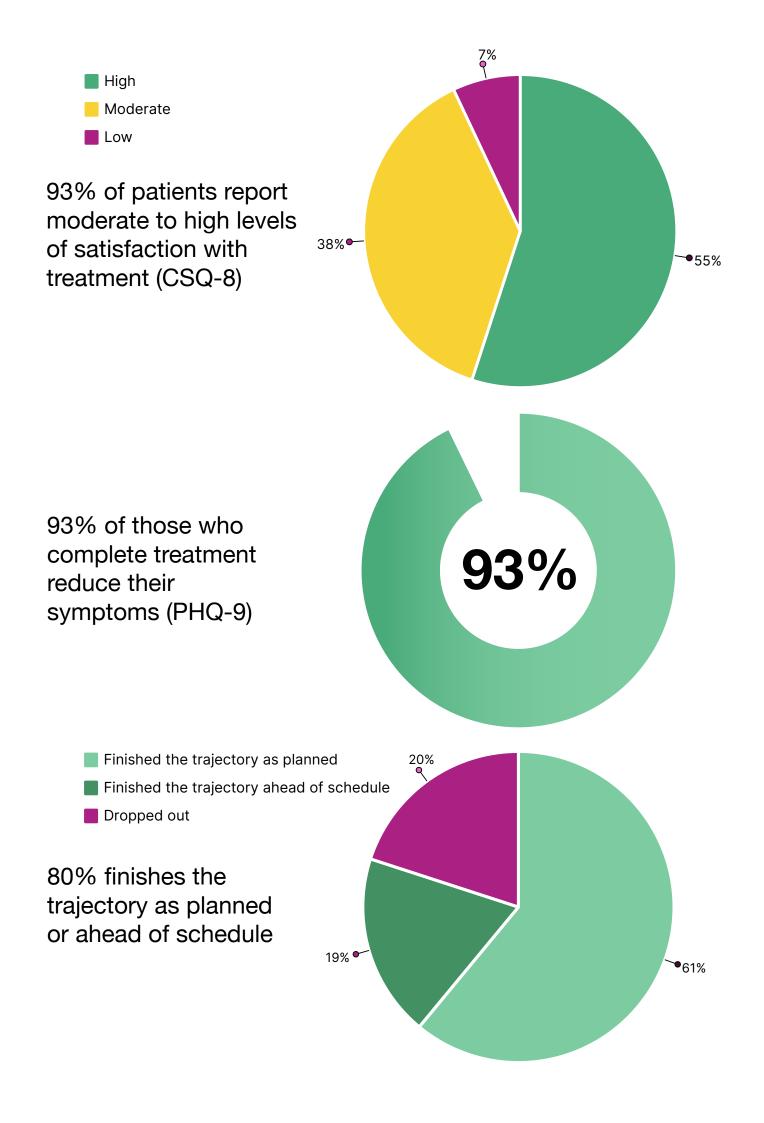
## The tightrope of scalability and personalisation

As the program scales, maintaining engagement and adherence becomes an ongoing challenge. While digital therapy offers unparalleled efficiency and accessibility, it's not a one-size-fits-all solution. Tailoring the program to meet the needs of diverse patient groups, without sacrificing the efficiency of the digital format, is a delicate balance.

By researching international case studies, automation of tailored personas and different hybrid care models the team of Centre for Digital Psychiatry aims to bridge this gap. By continuously refining their approach, the program will expand its reach while ensuring that patients remain engaged and achieve meaningful outcomes.

"We're building a new model... the goal is to keep patients motivated and aligned with their treatment goals, even in a more mixed or complex group."





The journey at Internetpsykiatrien shows the importance of user-centered design, a strong clinical vision and the role of data in driving both political and public trust. By advocating this vision, while building a methodologically sound system in tight cooperation with the entire team, you can build trust on a personal and a clinical level.

During our talks, the interviewees sometimes described the Danes as a cautious people. While we haven't necessarily seen any proof of that, if true, their accomplishments in digital healthcare are even more remarkable. They were able to take their cultural DNA and build on it, leading to a recipe for sustainable change.

This 'Danish digital driving force' led to the transformation of a nationwide mental healthcare system. A system that can inspire change in mental healthcare worldwide.

