

SweSRII 2025



The 14th Swedish Congress on Internet Interventions
Karolinska Institute, Stockholm, 4-5th June 2025

SweSR14

14th Swedish Congress on Internet Interventions Karolinska Institute, Stockholm, 4-5th June 2025

On behalf of the Organizing Committee, it is our great pleasure to welcome you to the 14th Swedish Congress on Internet Interventions (SweSR14). The Congress is hosted by the Digital Psychiatry Lab at the Centre for Psychiatry Research at Karolinska Institute.

We have invited researchers from Sweden and all over the world to share their knowledge and experiences on using and developing Internet-based interventions. The aim of our conference is to contribute to the development and dissemination of best possible psychological interventions to help people in need.

The Organizing Committee



Philip Lindner
Docent and research
group leader, Karolinska
Institute
(Local head of the
Organizing Committee)



Per Carlbring
Professor
Stockholm University
(Head of the Scientific
Committee)



Gerhard Andersson
Professor
Linköping University
(Chairman of the
Scientific Committee)



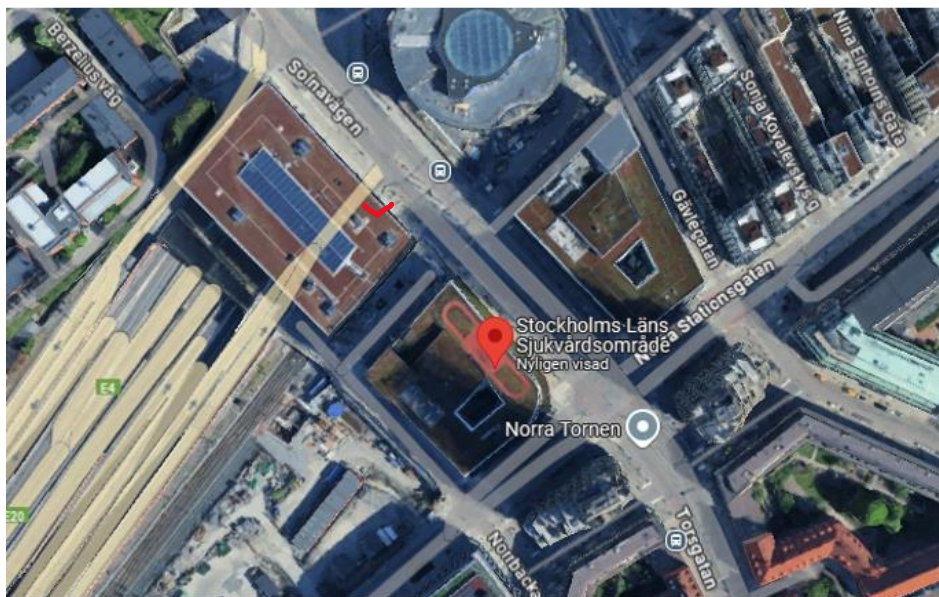
George Vlaescu
System developer
Linköping University
(Head of support)

Practical information

Meeting location:

SLSO Conference center (1st floor)
Solnavägen 1E (near Torsplan), Stockholm, Sweden

Link/QR-code for [Google Maps](#):



Schedule – SweSRII 2025

See next page for listing of oral presentations.

Day	Slot			Theme
Wednesday 4/6	13:00	13:05	Welcome and introduction	
	13:05	14:20	Oral 1-5	Implementation
	14:20	14:45	Break and posters	
	14:45	15:45	Oral 6-9	Implementation, novel treatments
	15:45	16:00	Break and posters	
	16:00	16:45	Oral 10-12	Novel treatments cont
Thursday 5/6	08:30	10:15	Oral 13-19 (including leg-stretcher)	Novel treatments cont, mechanisms
	10:15	10:30	Break	
	10:30	11:45	Oral 20-24	AI and NLP
	11:45	12:00	Closing ceremony	

Oral	Presenter	Title
1	Beate Standal	The healthcare professional as salesperson: How technology reshapes the therapist role in mental healthcare
2	Johan Edbacken	Internet-Based Cognitive Behavioral Therapy in Regional Healthcare: Practitioners' Experiences and Practical Challenges
3	Anahita Geranmayeh	Psychologists' perspectives on barriers and facilitators in implementing digital mental health interventions for refugees and migrants
4	Martin Karaba Bäckström	Needs and Preferences for Digitally Promoting Mental Health Literacy, Occupational Balance, and Peer Support among Young Adults in Sweden: A Qualitative Interview Study
5	Kristofer Vernmark	Cross-cultural AI-adaptation and pilot testing of the Digital Competencies for Applied Psychological Practitioners Scale in Swedish psychology students
6	Greta Schettini & Philip Lindner	Social workers' attitudes toward digital interventions in addiction care: A mixed-method study
7	Alexander Rozental	Online group-based cognitive behavioral therapy for reducing procrastination in college students: A randomized controlled trial
8	Rebecca Andersson	Therapist-guided and self-guided online behavioural activation versus treatment as usual for adolescents with mild to moderate depression: a single-blinded, randomised controlled trial
9	Alice Ahnlund Hoffmann & Josef Neib	Development and evaluation of blended CBT for common mental disorders within psychiatric outpatient and primary care
10	Kristina Aspvall	Is it possible to prevent the development of OCD in at-risk children? A feasibility study of a parent-guided programme.
11	Klara Olofsdotter Lauri	Exploring the efficacy and mediators of online cognitive therapy for taboo obsessions in OCD patients: A randomized controlled trial.
12	Frida Berglund	Therapist-guided, internet-delivered cognitive behavioral therapy (ICBT) for prolonged grief: feasibility and study protocol
13	Maria Hedman-Lagerlöf	Cost-effectiveness and cost-utility of exposure-based vs. traditional cognitive behavior therapy for fibromyalgia: Results from a randomized controlled trial
14	Jón Ingi Hlynsson	"I don't know if I cleaned it properly": Can we leverage smartphone-based solutions to deliver evidence-based treatment for OCD in everyday environments?
15	Madlena Arakelyan	Healing Across Borders: Online Integrative Psychotherapy for the Armenian Diaspora
16	Trine Theresa Holmberg Sainte-Marie	Developing and Designing a Personalized iCBT Treatment for Depression: The PERSONAE Project
17	Gerhard Andersson	Questions asked by therapists in guided ICBT for depression
18	Martin Kraepelien	What features are needed to make unguided digital self-help as effective as guided? Data from three recent randomized trials
19	Julia Krawczyk	How Young Adults with Persistent Physical Symptoms Engage with Internet-Based Resources: A Qualitative Study in Poland
20	Per Carlbring	AI as Therapist: Early Findings from a Three-Arm Trial for Social Anxiety
21	Nils Hentati Isacsson	Natural Language Processing Models for Predicting Treatment Outcomes in Internet-Based Cognitive Behavioural Therapy
22	Olga Perski	Designing an informative within-person experimental study to optimise a just-in-time adaptive intervention for smoking cessation
23	Robert Johansson	Computational Psychiatry Meets ICBT: Bayesian Virtual Patients
24	Viktor Kaldo	Clinical efficacy of a Machine Learning based Clinical Decision Support System for therapists treating patients with Internet Cognitive Behavioral Therapy – A triple blind randomized clinical trial

Presentation Abstracts

(ordered by the first name of the presenter)

Alexander Rozental

Luleå University of Technology, Sweden

“Online group-based cognitive behavioral therapy for reducing procrastination in college students: A randomized controlled trial”

Procrastination is a widespread issue among university students, affecting academic performance and well-being. This randomized controlled trial examines the effectiveness of an online group-based cognitive-behavioral therapy (CBT) intervention in reducing procrastination.

Seventy-one university students with self-reported procrastination were randomly assigned to an online CBT intervention or a wait-list control group. The intervention, based on Temporal Motivation Theory, targeted procrastination through goal-setting, behavioral activation, and cognitive restructuring. Procrastination and motivational factors were assessed pre- and post-intervention using self-report measures. Data were analyzed using mixed-effects models.

The intervention group showed a significant reduction in procrastination (Cohen's $d = 1.09$) compared to the control group. Improvements were observed in Value and Impulsivity, but not Expectancy. Self-efficacy increased, while well-being showed no significant change. The findings suggest that the intervention effectively targets key procrastination mechanisms, primarily through behavioral strategies rather than cognitive restructuring.

This study supports the effectiveness of CBT in reducing procrastination among university students, with a strong impact on behavioral strategies linked to motivation. While Value and Impulsivity improved, Expectancy remained unchanged, suggesting a need for enhanced cognitive restructuring components. Future research should explore long-term effects and refine interventions to optimize treatment outcomes for procrastination.

de Haas, S.M.H., Blaesing, L., Oosterhoff, R., Rozental, A., & Schedes, A.P.J.

Alice Ahnlund Hoffmann, Josef Neib

Karolinska Institutet, Sweden

“Development and evaluation of blended CBT for common mental disorders within psychiatric outpatient and primary care”

Blended CBT (bCBT) combines digital therapy with in-person or video sessions. Proposed advantages include increased methodological fidelity, accessibility and more efficient use of resources, while maintaining higher acceptance and adherence to treatment compared to digital therapy alone. The overall purpose of the project is to develop and evaluate the feasibility, implementability and preliminary clinical effects of bCBT in routine care settings in the Stockholm and Gävleborg regions.

The ongoing studies employ within-subject and qualitative interview designs. bCBT for depression, panic disorder, generalized anxiety, social anxiety, obsessive-compulsive disorder and insomnia is administered for 8-16 weeks. Participants (N=200) are recruited from 12 care facilities. Data is collected through self-report questionnaires, medical records, as well as patient

(N=30) and therapist (N=20) interviews. The intervention is continuously adapted based on user feedback.

To date 80 patients have been enrolled. Two patients have been interviewed. Therapist interviews are commencing in spring 2025. Preliminary qualitative results can be presented by the time of the conference.

The project will provide knowledge into the feasibility of bCBT in clinical settings and result in a package of materials and protocols. Clinical effects are exploratory due to user participation in the development process and continuous adaptations. If proven feasible and effective in subsequent trials, bCBT could play a crucial role in stepped care models. National implementation will be facilitated by the existing integration of the utilized platform into the healthcare infrastructure.

Ahnlund Hoffmann, A., Neib, J., Salomonsson, S., Saliba Gustafsson, E., Kaldo, V., Jernelöv, S., Blom, K., Ivanov, V., Björck, C., Lundgren, T., Hedman-Lagerlöf, M.

Anahita Geranmayeh

Karolinska Institutet, Sweden

“Psychologists’ perspectives on barriers and facilitators in implementing digital mental health interventions for refugees and migrants.”

The number of refugees and migrants has been increasing globally. These populations experience a higher prevalence of mental health issues. Despite this, they encounter numerous barriers to accessing appropriate care. Digital mental health solutions, with innovative and scalable approaches, could help bridge this gap. However, little is known about psychologists’ perspectives on using digital interventions for these populations, despite their pivotal role in implementing these interventions.

A national cross-sectional online survey was conducted among Swedish psychologists (n=81) to assess their knowledge, usage, and acceptability of digital mental health interventions for refugees and migrants. Participants also answered open-ended questions about barriers and facilitators to the implementation of digital health services in the Swedish healthcare system. Qualitative content analysis was utilized to identify the barriers and facilitators mentioned by respondents.

Researchers coded the open-ended responses through an inductive approach. Barriers were categorized into 9 groups, with the most frequently mentioned being Lack of knowledge and resources and Linguistic limitations. Facilitators were divided into two groups: Advantages of using digital tools (with 5 categories) and Recommendations for improving implementation (with 8 categories). The most common advantage was Increased accessibility, as the leading recommendation was to Adapt existing material.

Our findings identified specific obstacles that need to be addressed, along with recommendations and specific advantages, that could facilitate the implementation and use of digital mental health solutions for refugees and migrants in Sweden. Understanding these factors can enhance the integration of digital interventions into routine care and support healthcare managers and policymakers in strengthening existing capacities to serve underserved populations.

Geranmayeh, A., Vernmark, K., Duffy, D., Andersson, G., & Shahnava, S.

Beate Standal

University of Bergen/Research Centre for Digital Mental Health Services

“The healthcare professional as salesperson: How technology reshapes the therapist role in mental healthcare”

Guided internet-delivered cognitive behavioral therapy (iCBT) represents a significant advancement in mental health care. While its effectiveness is well established, the evolving role of therapists within this technology-driven model remains underexplored. This presentation highlights one key finding from a study examining how guided iCBT transforms the therapist's professional responsibilities.

Semi-structured interviews (n=22) and participatory observations (n=5) were conducted in three Norwegian clinics providing guided iCBT for anxiety and depression. Thirty-one healthcare professionals were recruited through purposive and snowball sampling. Data was analysed using reflexive thematic analysis. Two main themes were identified: 1) increased professional agency and 2) expansion of the therapist role. The presentation will focus on one sub-theme: the professional salesperson.

The therapist's role has evolved beyond traditional clinical duties to include sales-oriented activities, such as actively promoting guided iCBT to patients, fellow therapists and doctors. This shift moves beyond shared decision-making and may reflect a trend of viewing patients as consumers and therapists feeling personally responsible for marketing the treatment. Such activities can blur the boundary between therapeutic guidance and promotion.

This study highlights the unintended consequences of digital treatment models on therapists' professional roles and responsibilities. The presentation will demonstrate how the increased burden of non-clinical responsibilities can compromise therapists' autonomy and divert their focus from clinical duties, potentially impacting patient care.

Standal, B., Kenter, R.M.F., Gullslett, M.K., Nordgreen, T., & Teig, I.L.

Frida Berglund

Uppsala university, Sweden

“Therapist-guided, internet-delivered cognitive behavioral therapy (ICBT) for prolonged grief: feasibility and study protocol”

Although most bereaved adults adjust over time, a minority develops prolonged grief disorder (PGD), a debilitating condition marked by intense longing and preoccupation with the deceased. PGD was recently included in DSM-5-TR and ICD-11, and as a new diagnosis, there is a need for evidence-based treatments. The aim of this project is to assess the feasibility and efficacy of internet-delivered cognitive behavioral therapy (ICBT) for PGD.

The feasibility of ICBT for PGD was examined in an uncontrolled trial. Ten participants received 8 weeks of ICBT, completed self-measures of PGD, posttraumatic stress (PTS) and depression pre- and post-treatment, and answered surveys on treatment experience.

The next step is a randomized controlled trial with participants (n=264) allocated to ICBT, active control or waitlist (5:5:1). Symptoms of PGD, PTS, and depression will be measured weekly, with follow-ups at 6- and 12-months post-treatment.

Most participants in the feasibility study reported satisfaction with the treatment, and all would recommend it to others. Significant reductions were observed in symptoms of PGD ($d=1.01$), PTS ($d=0.75$) and depression ($d=1.11$) between pre- and post-assessment ($n=10$). The study protocol of the planned randomized controlled trial will be presented.

ICBT for PGD is a feasible and acceptable treatment, showing preliminary effects in reducing symptoms of PGD, PTS and depression. The current study will be the first randomized controlled trial to compare ICBT for PGD with an active control intervention and a waitlist control. Including an active control is an important step toward understanding the mechanisms behind effective interventions for psychopathology after loss.

Berglund, F., Eklund, R., Blom, K., Ciardella, L., Hven, E., Kaldo, V., Bragesjö, M., & Sveen, J.

Gerhard Andersson

Linköping university, Sweden

“Questions asked by therapists in guided ICBT for depression”

While much is known about the effects of guided ICBT less is known about how clinicians handle the correspondence and what questions they ask. The aim of this study was to categorize therapist messages involving questions and to investigate their importance in ICBT for depression.

We used data from a published factorial design trial (Andersson et al., 2023) on tailored ICBT for depression. Half of the clients received scheduled support and the other half support on demand. Therapist-client interactions were collected and categorized. Six therapists handling 197 clients were analyzed. The categories used were:

1. Questions about technical issues
2. Practical questions
3. Motivational questions
4. Problem solving questions related to treatment
5. Other questions.

Out of 2888 messages exchanged, 637 questions were asked. The most common category was Problem solving (34%) and Motivational (34%), followed by Practical questions (32%). There were very few Technical questions (0.5%) and none in the other category. There was a statistically significant therapist effect and an effect of treatment condition (less in the support on demand arm). Finally, number of opened treatment modules correlated with number of questions asked ($r=0.14$).

We conclude that therapist correspondence in ICBT for depression can be important and that the questions asked tend to be focused on the treatment and adherence. It is also clearly the case that support on demand leads to less therapist-client interaction and hence fewer questions. Finally, more studies could be conducted on similar data sets as there may be differences between target groups (e.g., older adults) and conditions treated.

Gerhard Andersson and Rebecka Hjelmfors

Greta Schettini, Philip Linder

Karolinska Institutet, Sweden

“Social workers’ attitudes toward digital interventions in addiction care: A mixed-method study”

Addiction care in Sweden is a shared responsibility between regional healthcare and municipal social services, which leads to large geographical differences in interventions available. One approach to addressing these disparities is to complement traditional services with digital interventions, which has also shown to lower the barriers to seek help. The current study therefore aimed to examine Swedish social workers' attitudes toward digital interventions in addiction care.

An embedded mixed-methods study was conducted, comprising 126 quantitative survey responses and 10 qualitative semi-structured interviews. While quantitative and qualitative data were collected simultaneously, the quantitative data were analyzed first, using repeated measure ANOVAs. This was followed by the qualitative analysis, using thematic analysis, theoretically grounded in Technology Frames theory, to deepen the interpretation of the quantitative findings.

Preliminary quantitative results show increasing positive attitudes toward digital interventions with increasing case knowledge. The qualitative data is currently being analyzed and will be presented at the conference.

Social workers appear positive towards using digital interventions as part of their addiction, yet these interventions need to be tailored to the social work context.

Schettini, G., Lakew, N., Ekström, V., Johansson, M. & Lindner, P.

Johan Edbacken

Psykologpartners, Sweden

“Internet-Based Cognitive Behavioral Therapy in Regional Healthcare: Practitioners’ Experiences and Practical Challenges”

Internet-based Cognitive Behavioral Therapy (ICBT) has become an established method within Swedish healthcare, demonstrating comparable outcomes to traditional CBT. While numerous studies validate ICBT's effectiveness, there is ongoing debate regarding its feasibility when broadly implemented in routine care. This survey uniquely captures the perspectives of practitioners working in regional healthcare settings, offering insights into the everyday application of ICBT.

An online survey was conducted among 89 practitioners during a network meeting organized by Psykologpartners. Most respondents (85%) work in primary care within regional healthcare settings. The survey explored how practitioners use ICBT in real-world contexts, including patient engagement and communication patterns. Unlike controlled research environments, this exploration provides insights into how ICBT is practically applied in everyday clinical work.

Most practitioners manage 3-10 concurrent ICBT treatments, typically lasting 11-15 weeks. Weekly text-based communication is the predominant support method. Practitioners reported high completion rates, with most patients completing the entire treatment. ICBT was perceived as effective, with 90% of respondents indicating it saves time, 93% reporting increased accessibility, and two-thirds noting improved treatment quality compared to traditional methods.

The survey demonstrates that ICBT is feasible and valued in routine clinical practice, particularly within regional healthcare. It offers time efficiency and improved accessibility while maintaining treatment quality. Practitioners identified key areas for improvement, including more diverse programs (e.g., transdiagnostic and simplified formats), increased flexibility (modular structures, tailored content), and better adaptation to specific patient groups, particularly youth.

Eedbacken, J., Gårdbro, E., Katalinic, J., & Thunberg Trogen, K.

Jón Ingi Hlynsson

Stockholm University, Sweden

“I don’t know if I cleaned it properly”: Can we leverage smartphone-based solutions to deliver evidence-based treatment for OCD in everyday environments?

Obsessive-compulsive disorder (OCD) is characterized by persistent obsessions and/or compulsions, significantly impacting daily functioning, and imposing high economic costs. Despite the availability of evidence-based treatments, many OCD patients do not receive adequate care due to barriers related to affordability, accessibility, and scalability. This presentation will demonstrate how technology can be leveraged to deliver evidence-based treatment to OCD patients in their everyday environment.

Alongside the overview of current state-of-the-art Internet-based treatments for OCD, a novel intervention, ZeroOCD, will be presented. ZeroOCD is a smartphone-based augmented reality (AR) therapy that combines conventional exposure and ritual prevention principles with CBT techniques in an effort to ameliorate OCD symptoms. Its focus is on facilitating the treatment and reduction of contamination-related symptoms (e.g., fear of dirt, germs, bodily fluids)—the most common subtype of OCD.

Several technology-based self-help tools for OCD are available (e.g., smartphone apps and bibliotherapy). However, many of these self-help tools, particularly commercially available smartphone apps, still lack empirical support. In contrast, evidence-based Internet-delivered treatments for OCD like the Karolinska ICBT program show promise. Still, even these interventions face scalability limitations as therapists must allocate time to provide individualized feedback to each patient.

While effective, evidence-based treatments exist, many patients do not receive them due to barriers such as a shortage of specialized therapists, stigma, long waiting lists, and high costs. Worse still, only about 50% achieve remission with current state-of-the-art treatments for OCD. ZeroOCD offers a promising approach by providing AR to deliver accessible, scalable, and ecologically valid treatment for OCD once fully automated (i.e., available in app stores with no therapist time needed).

Hlynsson, J. I., Bergström, J., Carlbring, P., Ciharova, M., Cornelisz, I., van Klaveren, C., Krieger, T., Berger, T., Skoko, A., Van Daele, T., & Donker, T.

Julia Krawczyk

Adam Mickiewicz University, Poznan, Poland

“How Young Adults with Persistent Physical Symptoms Engage with Internet-Based Resources: A Qualitative Study in Poland”

Persistent Physical Symptoms (PPS)—distressing, recurrent somatic complaints—remain insufficiently addressed across Europe, especially when lacking a clear medical explanation. Although internet-based resources are increasingly common in Sweden, little is known about how they are used by young adults with PPS in other countries. This study explores how Polish young adults utilize and engage with internet-based resources in context of such symptoms.

This qualitative study uses semi-structured interviews with young adults recruited via Polish social media. Eligible participants are Polish-speaking, aged 18–24, and report persistent or recurrent somatic symptoms for at least three months. Those meeting criteria are interviewed online by a licensed psychotherapist. Data are audio-recorded, transcribed, and analysed using reflexive thematic analysis.

Data collection is currently in progress. Thematic analysis, guided by Braun and Clarke's framework, will be used for data analysis. Themes will be generated through an iterative, interpretive process and presented at the conference in relation to the study's research questions.

The findings will contribute to the development of context-sensitive digital self-help resources and will inform future research in this area.

Krawczyk, J., Amiri, M. A.,

Klara Olofsdotter Lauri

Karolinska Institutet, Sweden

“Exploring the efficacy and mediators of online cognitive therapy for taboo obsessions in OCD patients: A randomized controlled trial.”

Taboo obsessions are a prevalent symptom among patients with obsessive-compulsive disorder (OCD). These obsessions often pose challenges for traditional exposure-based treatments. This study investigated the efficacy of an internet-delivered cognitive treatment (I-CT) in reducing OCD symptom severity and related impairments. Additionally, we explored whether the treatment effect was mediated by a reduction in negative appraisals, the proposed mechanism of change in cognitive therapy.

We conducted a randomized controlled trial with 68 participants diagnosed with OCD who primarily suffered from taboo obsessions. Participants were allocated to either I-CT or digital psychological support for eight weeks. The primary outcome was change in scores on the clinician-rated Yale-Brown Obsessive-Compulsive Scale, administered by masked assessors after the intervention.

Significant reductions in OCD symptom severity were observed in both the intervention and control group, but the I-CT group showed significantly better outcomes (between-group bootstrapped $d = 0.69$, [95% CI, 0.22–1.17]). A substantial portion of the treatment effect (55%) was mediated by changes in negative appraisals.

I-CT is a promising treatment option for individuals who are either unwilling or unable to engage in, or do not respond to, exposure-based treatments. This approach could offer improved outcomes for patients struggling with these challenging symptoms.

Olofsdotter Lauri, K., Aspvall, K., Lybert, N., Samuelsson, C., Liliequist, B.E., Håkansson, E., Serlachius, E., Rück, C., Mataix-Cols, D., & Andersson, E.

Kristina Aspvall

Karolinska Institutet, Sweden

“Is it possible to prevent the development of OCD in at-risk children? A feasibility study of a parent-guided programme.”

Obsessive-compulsive disorder (OCD) typically develops during childhood. Studies have shown that it is possible to detect children who are at high-risk of developing OCD. Therefore, the current project uses a preventive approach to evaluate if it is possible to intervene before the symptoms develop into a full-blown disorder.

In an ongoing feasibility study, we have developed and evaluated a four-module online parent-guided programme. The participants are 35 children aged 5 to 12 years, who have subclinical obsessive-compulsive symptoms and/or a first-degree relative with a life-time history of OCD. Long-term follow-up assessments are conducted after six and twelve months and consist of a semi-structured clinician interview and parent-rated measures. Qualitative interviews have been conducted with nine parents.

All parents completed the end-of-programme assessment, and the majority (74%) completed three or four of the modules. We observed a large within-group effect on several of the clinical outcome measures. The largest decrease was found on family accommodation ($d = 0.97$; 95% CI 0.60 to 1.35). Results from the long-term follow-ups will be available in April 2025.

Preliminary results from this ongoing study indicate that the intervention is feasible and acceptable among parents with children who are at risk of developing OCD. If the results from the long-term follow-up assessments are promising, a next future step is a large-scale trial investigating if it is possible to decrease the incidence of the disorder.

Aspvall, K., Kraepelien, M., Petersson, J., Nilsson, J., Cervin, M., Andersson, E., & Mataix-Cols, D.

Kristofer Vernmark

Linköping University, Sweden

“Cross-cultural AI-adaptation and pilot testing of the Digital Competencies for Applied Psychological Practitioners Scale in Swedish psychology students”

As digital formats for the assessment and treatment of mental health become increasingly integrated into clinical practice, the demand for digital psychology competencies among psychologists is growing. Although competency frameworks and assessment tools have been developed internationally, such as the Digital Competencies for Applied Psychological Practitioners (DCAPP) scale, there is still a lack of structured training and validated measures in Swedish academic and clinical settings.

This pilot study examines a cross-cultural AI-adaptation of the DCAPP. Participants include psychology students enrolled in the first digital psychology course at Linköping University, along with a comparison group not taking the course. Data will be collected before and after the course (April–May 2025). Descriptive and inferential statistics will be used to analyze the data, with internal consistency and responsiveness to change examined as preliminary indicators of construct validity.

The evaluation of the translation process and preliminary survey results will be presented.

Findings are expected to inform the development and implementation of digital psychology competency frameworks and measurements to be used in academic and clinical training settings in Sweden.

Vernmark, K.

Madlena Arakelyan

Yerevan State Medical University after Mkhitar Heratsi, Republic of Armenia

“Healing Across Borders: Online Integrative Psychotherapy for the Armenian Diaspora”

This study investigates the effectiveness of internet-based psychotherapy for Armenian patients living in the US, Europe, and Russia. With the growing demand for accessible mental health services among diaspora communities, especially those navigating the challenges of migration, identity, and cultural adjustment, online therapy has emerged as a crucial medium for psychological support. The study is grounded in Cognitive Behavioral Therapy (CBT) as the primary therapeutic framework, while also incorporating elements of humanistic-existential psychotherapy, Gestalt therapy, and Brainspotting to create a more integrative and responsive treatment model. The participants in the study were Armenian individuals who had relocated to various countries and were seeking culturally sensitive psychological support. All patients were referred to the therapist through informal networks and acquaintances in Armenia, reflecting both the strong communal ties within the Armenian diaspora and the trust placed in word-of-mouth recommendations when it comes to mental health care. These referrals underscore the importance of cultural familiarity and shared language in building therapeutic alliances, especially in remote therapeutic settings. The author, working both online and offline, combined different therapeutic methods to assess the efficacy of a holistic approach for online therapy. By integrating multiple approaches, the therapist sought to create a holistic treatment model that was flexible, culturally attuned, and effective in the online setting. Preliminary findings suggest that this integrative approach not only improved clinical outcomes—such as reductions in anxiety, depression, and PTSD symptoms—but also fostered a stronger therapeutic alliance, even in the virtual space.

The study involved 30 participants who engaged in an eclectic online therapeutic approach over one year, with therapy durations ranging from three to six months. The structured foundation of CBT provided consistency, while the incorporation of humanistic-existential therapy, Gestalt therapy, and Brainspotting facilitated deeper emotional processing, targeting emotional dysregulation and unresolved emotional traumas. CBT served as the structural backbone of the sessions, offering patients practical tools to identify and challenge maladaptive thought patterns and behaviors. However, to address the more nuanced emotional and existential concerns often expressed by clients—such as identity loss, grief related to displacement, and intergenerational trauma—the therapist also employed humanistic-existential approaches. These methods facilitated deeper self-exploration and helped clients find meaning in their current circumstances. Gestalt therapy techniques were used to increase awareness and emotional expression, especially when clients struggled to articulate their feelings. Brainspotting, a relatively newer method that combines somatic awareness with focused eye positioning to access and process trauma, was introduced in selected cases where clients reported unresolved traumatic experiences.

The findings indicate significant improvements in patients' mental health across multiple dimensions, including reductions in anxiety, depression, and emotional dysregulation. Brainspotting, in particular, facilitated deeper emotional processing, while humanistic-existential

and Gestalt elements contributed to greater self-acceptance, emotional expression and enhanced coping mechanisms. The structured nature of CBT provided patients with a sense of stability and clarity throughout the therapeutic process. Overall, the study highlights the potential of culturally sensitive, integrative psychotherapy delivered online to meet the complex psychological needs of diasporic populations. It also underscores the importance of flexibility in therapeutic methodology and the value of combining established and emerging techniques to enhance therapeutic outcomes in remote settings.

The study revealed several key findings regarding the effectiveness of internet-based psychotherapy for Armenian clients living in the United States, Europe, and Russia. Overall, patients demonstrated significant improvements in their psychological well-being across a range of symptoms, including depression, adjustment-related stress, and trauma-related distress. These improvements were observed both through clinical self-reports and therapist evaluations over the course of therapy. One of the most notable outcomes was the effectiveness of a culturally sensitive, integrative therapeutic approach. Clients responded particularly well to the existential and humanistic elements, especially when exploring issues related to identity, cultural displacement, and feelings of isolation. Many participants expressed a strong need to make meaning of their experiences, and they reported that having space to reflect on deeper existential themes helped them feel seen, validated, and empowered. Quantitatively, most clients showed a reduction in anxiety and depressive symptoms within the first 8–12 sessions. These improvements were sustained or continued to improve across longer-term therapy (20+ sessions), particularly in cases where Brainspotting was used to address underlying trauma. Clients who received Brainspotting interventions reported a notable decrease in somatic symptoms, emotional reactivity, and flashbacks. These results suggest that even in a virtual setting, somatic-oriented trauma therapies can be effectively delivered and integrated into online psychotherapy. Another important finding was the impact of cultural familiarity and language. All clients were native Armenian speakers, and the ability to conduct therapy in their first language significantly enhanced the therapeutic alliance. Many participants reported that speaking in Armenian allowed them to express emotions and memories more deeply and authentically. Moreover, they felt more understood by a therapist who shared their cultural background and could grasp subtle nuances related to family dynamics, trauma history, and social expectations. The online format of therapy was also generally well-received. Clients appreciated the flexibility and accessibility, particularly those who lived in countries where Armenian-speaking therapists were not available locally. Technical challenges were minimal, and most clients adapted quickly to the virtual format. Interestingly, the therapeutic bond was not negatively affected by the distance; in fact, several clients reported feeling more emotionally safe and comfortable when opening up from their own private space.

Madlena Arakelyan

Maria Hedman-Lagerlöf

Department of Clinical Neuroscience, Karolinska Institutet, Sweden

“Cost-effectiveness and cost-utility of exposure-based vs. traditional cognitive behavior therapy for fibromyalgia: Results from a randomized controlled trial”

Fibromyalgia (FM) is associated with substantial societal costs. Due to the scarcity of effective and accessible treatments, it is essential to create and evaluate the cost-efficiency of novel interventions. This research focused on comparing the cost-effectiveness of online exposure

therapy (EXP-CBT) with online traditional CBT (T-CBT) for individuals with FM, based on data from a recently conducted randomized controlled trial (RCT).

We examined health economic data from an RCT involving 274 participants with FM, allocated to either EXP-CBT or T-CBT. The time horizon spanned 15 months, assessing treatment effectiveness in relation to costs from a societal perspective (including direct and indirect costs) as well as a health care perspective (only direct medical costs). Bootstrapped net benefit regression analyses compared cost and effect differences between EXP-CBT and T-CBT across various willingness-to-pay (WTP) scenarios.

The incremental cost-effectiveness ratio was $-1477/0.09 = -\$16,884$ (societal perspective), indicating EXP-CBT was cost-effective. Each additional treated case in EXP-CBT compared to T-CBT was associated with lower costs, with a 69% probability of being cost-effective at a WTP threshold of \$0. The cost-utility analysis estimated $-1477/0.05 = -\$28,763$, also with a 69% probability at a WTP threshold of \$0. No significant differences in total costs or effectiveness were found between EXP-CBT and T-CBT.

Online exposure therapy may be a cost-effective alternative to online traditional CBT. However, as there appears to be no marked cost- or effect differences between the two treatments, results should be interpreted with caution.

Hedman-Lagerlöf, M., Hedman-Lagerlöf, E., Buhrman, M., Axelsson, E.

Martin Karaba Bäckström

Mental Health, Activity and Participation, Lund University

“Needs and Preferences for Digitally Promoting Mental Health Literacy, Occupational Balance, and Peer Support among Young Adults in Sweden: A Qualitative Interview Study “

Young adults experience stressors in their transition to adulthood and are at increased risk of mental ill-health. This risk is compounded by young adults' low levels of mental health literacy and limited skills in implementing strategies promoting their mental health and well-being in their daily lives. In Sweden, there is a lack of co-produced and evidence-based interventions targeting these issues.

Semi-structured interviews were conducted with 16 young adults and analyzed using reflexive thematic analysis.

The interviews and subsequent analysis revealed three main themes: (1) “To Feel that Life is Worth Living” – Young Adults' Needs for Mental Health and Well-being; (2) “A place for one's personal work toward their own mental well-being” – Young Adults' Views on a Digital Mental Health Application; and, (3) “Something that is Designed for Me” – Customization of the Digital Mental Health Application.

In accordance with the preferences of Swedish young adults, promoting mental health and well-being through digital technology and e-health should focus on a customizable application that supports balance in daily life while strengthening their mental health competencies. The content should be based on how to maintain meaningful relationships and activities, addressing challenges such as negative social media use and stress recovery, and enhancing mental health knowledge and peer support.

Martin Karaba Bäckström, Sonya Girdler, Ben Milbourn, Annika Lexén

Martin Kraepelien

Karolinska Institutet, Sweden

“What features are needed to make unguided digital self-help as effective as guided? Data from three recent randomized trials”

In digital self-help interventions, clinician-guidance is a prominent feature to enhance engagement with therapeutic components and to increase efficacy. What other features, that require less clinician-time, may increase engagement and efficacy, to make unguided self-help on par with guided?

Three recent randomized trials are used as examples of successful unguided self-help interventions for different conditions: atopic dermatitis, insomnia and a transdiagnostic intervention for depression and anxiety.

Some features suggested as being important for successful unguided self-help are: initial interviews, brief material, monitoring, focus on key therapeutic components, optimized user interface and automated reminders.

If self-help interventions are constructed with careful consideration of these features, unguided approaches may offer a highly efficient alternative to guided self-help.

Kraepelien, M., Karlsson-Good, M., Hentati, A., & Kern, D.

Nils Hentati Isacson

Karolinska Institutet, Sweden

“Natural Language Processing Models for Predicting Treatment Outcomes in Internet-Based Cognitive Behavioural Therapy”

Predicting treatment outcome has the potential to enhance Internet-based Cognitive Behavioral Therapy (ICBT). One aspect of guided ICBT is patient-therapist interaction through written messages. Using Natural language processing (NLP) these could be leveraged to predict outcome; however current evidence is limited. This study investigates the predictive accuracy of NLP models for treatment outcomes and evaluates whether NLP provides additional predictive value beyond symptom variables.

Patient-therapist messages from 6613 patients undergoing 12 weeks of treatment were used to train three types of NLP models: Term Frequency-Inverse Document Frequency (TF-IDF), Bidirectional Encoder Representations from transformers (BERT), and BERT for Longer Text (BELT). These were trained both with and without symptom variables from the initial treatment period (up to week 5) to predict post-treatment symptom level. A dummy model and a linear regression model acted as benchmarks.

Only BERT outperformed the dummy model, achieving a Root Mean Squared Error (RMSE) of 0.17 compared to RMSE of 0.18. Adding symptom variables to the BERT model significantly increased its accuracy, but not the RMSE metric. The best linear regression benchmark based on symptoms only had a BACC of 70% (F1-score of 0.66) which outperformed the BERT model with 60% (F1: 0.55) and the combined BERT plus symptoms model achieved 68% (F1: 0.62).

These initial findings indicate a small predictive value from patient-therapist written message interaction but added no value beyond using only symptoms to predict post-treatment symptoms. Further research is needed to refine NLP-methods and more accurately assess the predictive potential of text-based interactions during ICBT.

*Nils Hentati Isacson, Lucía Gómez-Zaragoza, Fehmi Ben Abdesslem,
Magnus Boman, & Viktor Kaldo*

Olga Perski

Stockholm University, Sweden

"Designing an informative within-person experimental study to optimise a just-in-time adaptive intervention for smoking cessation"

Popular addiction theories do not articulate temporal information about how empirical phenomena of interest (e.g., 'relapse') are dynamically caused, over time and within individuals. Leveraging formal and computational modelling, we developed a dynamic model of smoking lapse and relapse ('COMPLAPSE'). This talk aims to illustrate how COMPLAPSE was used to inform the design of a within-person experimental study to optimise a 'just-in-time adaptive intervention' (JITAI) for smoking cessation.

The well-known experimental medicine approach has been extensively applied at the between-person level. At the within-person level, a related design called 'system identification' has been developed by control systems engineers. System identification experiments require theoretical dynamic models as starting points and involve the delivery of theoretically informed intervention options under varying conditions of the system (i.e., each person).

Drawing on COMPLAPSE, we designed an informative system identification experiment in which we will recruit 15-20 adult smokers who are motivated to quit and are willing to respond to frequent smartphone surveys and wear a smartwatch for a period of 28 days. Two theoretically informed intervention options – i.e., "regulatory strategy suggestions" and "self-affirmation suggestions" – will be randomly delivered multiple times per day across different states of each person.

Dynamic models can help design informative within-person experiments. This talk will illustrate how key experimental design decisions were made in addition to how the study results will be used to iteratively refine the dynamic model itself and, at the same time, build towards a smoking cessation JITAI which can provide the right type of support to each person, when and where they most need it.

Perski, O., Allen, J., Pavel, M., Carlbring, P., Hankonen, N., Rivera, D., & Hekler, E.

Per Carlbring

Stockholm university, Department of Psychology, Sweden

"AI as Therapist: Early Findings from a Three-Arm Trial for Social Anxiety"

Social anxiety disorder affects approximately 12% of Western populations. STePS-Ai compares AI-delivered cognitive behavioral therapy (CBT) and psychodynamic therapy (PDT) for social anxiety in a randomized controlled trial. The AI chatbots are programmed to deliver either CBT or PDT protocols, though their adherence to these therapeutic frameworks remains to be evaluated. This

study builds on findings from the initial STePS project showing minimal differences between therapist-guided and self-guided interventions.

Ninety participants (LSAS-SR ≥ 30) are randomized 1:1:1 to AI-delivered CBT, AI-delivered PDT, or waitlist control. Both active treatments consist of 4-week smartphone-based interventions where an AI assistant provides daily text-based conversations through end-to-end encrypted applications. The Social Phobia Inventory (SPIN) serves as the primary outcome measure, with additional assessments including LSAS-SR, PHQ-9, GAD-7, Session Alliance Inventory, and Client Satisfaction Questionnaire. Analysis follows intention-to-treat principles using linear mixed models, with response defined as $\geq 30\%$ reduction in SPIN scores.

The study is currently ongoing with the 4-week treatment phase and post-assessment expected to be completed by the conference date, allowing presentation of preliminary findings on the comparative effectiveness of these approaches.

This preliminary investigation contributes incrementally to the expanding literature on AI-delivered psychological interventions. Findings should be interpreted with caution given methodological limitations and the need for replication. Future research must systematically examine therapeutic alliance formation, treatment fidelity, and comparative effectiveness against traditional delivery methods across diverse clinical populations. While potentially informative regarding treatment modality differences, results represent only one step in the empirical evaluation of AI-assisted psychological interventions for social anxiety disorder

Carlbring, P., Hlynsson, J. I., Jiborn, M., & Andersson, G.

Rebecca Andersson

Karolinska Institutet, Sweden

“Therapist-guided and self-guided online behavioural activation versus treatment as usual for adolescents with mild to moderate depression: a single-blinded, randomised controlled trial”

Adolescent depression is a major cause of disability and a global health priority, yet it often goes undetected and undertreated. This project addresses this gap by evaluating the efficacy and cost-effectiveness of remote psychological treatments, with and without therapist support, for major depression. Additionally, there is a lack of randomized trials on behavioral activation (BA) for adolescent depression, and none have specifically examined remote BA.

This single-blinded, parallel RCT included 219 adolescents (13–17 years) with mild to moderate major depression. They were randomly assigned (1:1:1) to 10 weeks of therapist-guided I-BA (n=73), self-guided I-BA (n=73), or treatment as usual (TAU, n=73). I-BA included an eight-module parent course, while TAU were provided by regular mental health care. The primary outcome was clinician-rated depression at the 3-month follow-up. Health economic analyses were also assessed.

Data collection for the primary endpoint was completed in mid-October 2024.

The results are currently being analysed, and we aim to finalise and submit the manuscript by April. Findings will be presented at the conference.

Rebecca Andersson, Johan Ahlén, Fabian Lenhard, Anna Ohlis, Vera Wachtmeister, Moa Karemyr, Jens Högström, Matteo Bottai, David Mataix-Cols, Sarah Vigerland, Eva Serlachius

Robert Johansson

Stockholm University, Sweden

“Computational Psychiatry Meets ICBT: Bayesian Virtual Patients”

Internet-delivered Cognitive Behavioral Therapy (ICBT) has improved access to psychological treatments, yet significant challenges remain in clinician training, intervention optimization, and understanding therapeutic mechanisms. Computational psychiatry offers promising quantitative methods to address these challenges.

We are developing an integration of hierarchical Bayesian cognitive modeling with GPT-based conversational AI, implemented via the BASS platform and its API. This creates dynamic virtual patients simulating realistic therapeutic processes central to psychological flexibility in ICBT.

Initial tests indicate these Bayesian virtual patients dynamically respond to therapeutic interventions through realistic clinical dialogue and automated completion of self-report measures. Preliminary findings and illustrative examples will be presented at the conference.

This ongoing integration of computational psychiatry with ICBT shows potential as a valuable tool for therapist training, personalized interventions, and precision mental health research. Future directions and initial implications for clinical practice will be discussed.

Johansson, R. & Ljótsson, B.

Trine Theresa Holmberg Sainte-Marie

Center for Digital Psychiatry, Denmark

“Developing and Designing a Personalized iCBT Treatment for Depression: The PERSONAE Project”

Internet-based Cognitive Behavioral Therapy (iCBT) is an effective and scalable treatment for depression. In Denmark, Internetpsykiatrien provides free, guided iCBT for adults with depression and anxiety. However, depression is a heterogeneous disorder, and traditional iCBT programs often apply a one-size-fits-all approach, which may not sufficiently address the wide variety of symptom profiles. This lack of personalization can lead to higher dropout rates and reduced treatment efficacy.

Aim & Theoretical Foundations:

PERSONAE is a personalized iCBT program tailored to symptom profiles and motivation. Based on second- and third-wave CBT, it enhances adherence via adaptive content and therapist support. Grounded in Vygotsky's Zone of Proximal Development, scaffolding, and Self-Determination Theory, it fosters learning and motivation by aligning therapy with the patient's cognitive and emotional readiness."

Structure & Personalization:

PERSONAE is a 12-week iCBT program starting with a shared intro and ending in relapse prevention. Patients receive a personalized queue of symptom-based modules (e.g., anhedonia, sleep, focus, self-criticism), each with graded sessions from psychoeducation to advanced exercises. Support is tiered: self-guided, guided, or blended, and adjusted via clinical markers. Content was adapted from FTF and prior projects for optimized app delivery and engagement."

PERSONAE represents a shift toward individualized digital mental health interventions. By accounting for the heterogeneity of depression and incorporating motivational and cognitive learning principles, the program aims to enhance adherence, reduce dropout, and ultimately improve clinical outcomes. Future research will assess its effectiveness in a randomized controlled trial initiating May 15th 2025.

Sainte-Marie, T.T.H., Ellerman, K.1, Damgaard U., Mathiasen K.*

Viktor Kaldo

Karolinska Institutet & Linnaeus University, Sweden

“Clinical efficacy of a Machine Learning based Clinical Decision Support System for therapists treating patients with Internet Cognitive Behavioral Therapy – A triple blind randomized clinical trial”

Internet-based Cognitive Behavioral Therapy (ICBT) combined with a Clinical Decision Support System (CDSS) based on Machine Learning (ML) predicting treatment outcome can signal if treatment adaptations are needed. A ML-model, learning from about 6000 patients with depression and anxiety, has been shown to make fully automatic predictions of treatment outcome. The aim of the current trial is to evaluate its clinical efficacy.

The CDSS summarize its prediction as:

- Green: likely success, spend less time on patient
- Yellow: Too uncertain
- Light Red: likely failure, small adjustments
- Dark Red: very likely failure, large adjustments

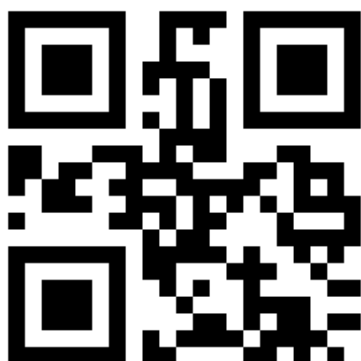
A therapist manual details the guidance.

A triple-blind randomized trial with 70 novice ICBT-therapists and patients (n=401) evaluate if patients to therapists randomized to use the CDSS decrease symptoms and increase adherence more than when the CDSS is not used.

All patients have been recruited, and preliminary results indicate a small but significant benefit for CDSS. Full results will be presented for the primary outcome (symptom reduction on each diagnose-specific measure) and the primary analysis for the sub-group of patients indicated as Red at least once during treatment (also for control patient, even though color is not shown for their therapists) since these are expected to benefit most.

The potential of precision medicine is described as substantial. However, few trials have gone beyond model-building and actually tested this assumption.

*Viktor Kaldo, Pontus Björner, Nils Hentati-Isacsson, Fehmi Ben Abdeslem,
Erik Forsell, & Magnus Boman*



www.swesrii.se



**Karolinska
Institutet**



*Printed in Linköping 2025 by Linköping University Electronic Press
Cover photo by Amina Manzoor*