Ansökan

2023-05920

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Information om ansökan

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Projekttitel: Utmattning som transdiagnostisk symtomdimension: Identifikation och behandling i primärvård

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Sökta medel

År:	2024	2025	2026	Totalt sökt belopp
Belopp:	2 395 680	2 437 680	2 473 680	7 307 040

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Projekttitel (svenska)

Utmattning som transdiagnostisk symtomdimension: Identifikation och behandling i primärvård

Projekttitel (engelska)

Fatigue as a transdiagnostic symptom dimension – Novel approaches to assessment and treatment in primary care

Abstract och populärvetenskaplig beskrivning

Abstract (engelska)

Exhaustion disorder (ED, *utmattningssyndrom*) is one of the most common and costly mental disorders in Swedish primary care. However, the validity of ED is debated and there are no evidence-based treatments. The core of ED - *fatigue* - is common across a range of disorders. Recent advances in international research indicate that fatigue is best understood as a transdiagnostic symptom dimension rather than a diagnosis-specific pathology. This paves the way for new, potentially more effective, approaches to assessment and treatment.

The purpose of this project is to increase knowledge of fatigue as a transdiagnostic symptom in primary care patients and to build evidence for a highly accessible transdiagnostic treatment for fatigue. Consecutively recruited primary care patients (*N*=500) with fatigue will be included in a multicenter randomized controlled trial and receive internet-delivered transdiagnostic cognitive behavioral therapy adjunct to care as usual, or care as usual only. Primary outcome will be change in fatigue severity (pre-post treatment) with controlled follow-ups up to 2 years from baseline. Moderators and mechanisms of treatment effect, and cost-effectiveness, will be analyzed.

This project has the potential to build solid evidence for an **accessible, cost-effective treatment** of fatigue that can be **readily implemented in primary care.** Results will contribute to **development of guidelines for assessment and treatment** of fatigue, and **better use of healthcare resources.**

Populärvetenskaplig beskrivning (svenska)

Svår, funktionsnedsättande trötthet (utmattning) är en vanlig sökorsak i primärvården och i Sverige får många patienter diagnosen utmattningssyndrom (UMS). UMS är idag den främsta orsaken till sjukskrivning i landet, men diagnosen är omdebatterad och det saknas evidensbaserad behandling. Internationellt studeras utmattning över en rad psykiatriska och somatiska tillstånd. Resultat från ny forskning indikerar att utmattning kan förstås bättre som en transdiagnostisk symtomdimension än som diagnosspecifik patologi. Detta öppnar upp för nya, potentiellt mer effektiva, behandlingsmetoder för utmattning.

Syftet med projektet är öka förståelsen för utmattning som transdiagnostiskt symtom över en rad somatiska och psykiatriska tillstånd i primärvården, samt att utvärdera effekten av en högtillgänglig transdiagnostisk kognitiv beteendeterapi (KBT) för utmattade primärvårdspatienter. Konsekutivt rekryterade primärvårdspatienter med utmattning (*N*=500) inkluderas i en randomiserad kontrollerad prövning och slumpas till att få transdiagnostisk KBT via internet som tillägg till sedvanlig vård, eller bara sedvanlig vård. Primärt utfall är förändring i svårighetsgrad av utmattning (före till efter behandling) med kontrollerade uppföljningar 1- och 2 år efter behandlingsstart. Faktorer som påverkar behandlingsrespons och symtomförändring analyseras, liksom kostnadseffektivitet.

Projektet är viktigt eftersom det kan **öka förståelsen för eventuella likheter och skillnader mellan utmattningstillstånd** och faktorer som kan påverka diagnosticering och behandlingsrespons. Projektet kan **skapa evidens för en högtillgänglig, kostnadseffektiv** behandling **anpassad för bred implementering i primärvård**. Resultat kan bidra till **uppbyggnad av nationella riktlinjer** för bedömning och behandling av utmattning, vilket skulle innebära att fler kan få tillgång till säker och effektiv vård som kan avlasta både patienter, primärvårdspersonal, och samhället i stort.

Planerad användning av forskningsinfrastruktur

Planeras användning av forskningsinfrastruktur

Ja

Forskningsinfrastruktur/er

Kliniska Studier Sverige - Forum Stockholm-Gotland

Annan forskningsinfrastruktur

Övriga ansökningar eller bidrag

Är någon eller flera av punkterna aktuella för dig?

Ja

Motivering och redogörelse för relationen mellan de olika projekten och/eller ansökningarna

The project proposal described in this application is not currently receiving any funding.

The main applicant is applying for the Swedish Research Council grant for research time within primary care 2023.

In the spring of 2023 we applied for the Swedish Research Council grant for clinical study within therapy research and are waiting for a first decision in step one (outline application). In that application, we applied for funding to conduct a national multicenter study (with the same aim as in the present application). We have established collaborations with researchers and clinicians in five regions in Sweden who are dedicated to contribute to patient recruitment, assessment, and treatment should the proposal be granted funding. The project idea, as well as the national collaborations, are largely based on work conducted by our research group (funded by a planning grant from the Swedish Research Council; Dnr 2020-06201) in which we, amongst other things, initiated a national research network that since has had several national meetings. In the present application, we plan for the study to initiate in Region Stockholm where collaborations with several primary care clinics have been established.

The research group holds a current Research Council grant (Dnr 2021-06469). This grant extends to the year of 2025 and supports studies in which we are investigating the characterization and discriminant validity of the Swedish diagnosis exhaustion disorder (*utmattningssyndrom*). The current research proposal largely builds on the preliminary findings from these studies.

Etiska aspekter: Lagliga och formella krav

Forskningen omfattar djurförsök som kräver etiskt godkännande enligt djurskyddslagen (2018:1192)

Nej

Forskningen omfattar studier på människor och/eller biologiskt material från människor och kräver godkännande enligt lagen (2003:460) om etikprövning av forskning som avser människor

Ja

Projektet är en läkemedelsprövning och/eller klinisk studie

Ja

Forskningen omfattar behandling av personuppgifter enligt Dataskyddsförordningen

Ja

Redogörelse för godkännanden och tillstånd

Application for ethical approval for the current project is in process and is expected to be submitted in the fall of 2023.The planned randomized controlled trial will be pre-registered on Clinical Trials.gov and each planned study will further be pre-registered on Open science framework (osf.io). During the trial, we will follow Good Clinical Practice (GCP) and quality and safety aspects will be regularly monitored by Kliniskastudier.se.

Etiska överväganden

Redogörelse etiska överväganden

The most prominent ethical benefit of the project is that it addresses a health issue that causes significant suffering for many individuals and their significant others. Further, the lack of guidelines for assessment and treatment of exhaustion disorder and other fatigued conditions is a significant source of distress for primary care clinicians. As such, the research project is expected not only to provide benefits for patients, but also to primary care staff and their psychosocial work-environment. Given that Region Stockholm made the formal decision to retract subsidization of specialized healthcare clinics that previously provided multimodal rehabilitation for patients with long-standing pain and fatigue (*Vårdval långvarig smärta och utmattningssyndrom*) in February this year, patients suffering from fatigue are expected to dramatically increase in numbers in primary care from 2025. Building evidence for safe and efficient assessment- and treatment procedures for the patient group is a pressing matter.

A central ethical aspect concerns storing of data and sensitive personal information. This poses a risk of violating personal integrity of the participants. These risks will be addressed by collecting written informed consent, and personal data will be collected, stored, and handled safely and in accordance with the General Data Protection Regulation Act.

The Internet-delivered transdiagnostic cognitive behavioral therapy (CBT) will be conducted via a secure platform that is already in use in regular care throughout Sweden (Stöd och behandlingsplattformen, SoB), and all written communication between therapists and participants will be encrypted. The research team has extensive experience of working with the treatment platform both in regular care and in clinical trials, as well as of handling sensitive information. Experience from our previous randomized clinical trials of Internet-delivered CBT for exhaustion disorder and other mental disorders is that treatment can be safely delivered with strong therapeutic effects and that adverse events are rare. This is further supported by current literature indicating that side effects of CBT are uncommon. In the present clinical trial, all participants will have continuous access to care as usual and are thus not required to make any changes in existing treatment plans or medications over the course of the trial.

Open science principles will be applied throughout this project. Making sure that research material will be made publicly available will promote scientific progress by enabling others to confirm the reliability of results. Fostering these practices will enable effective reuse of research knowledge, thus maximizing the societal benefits of the research efforts.

Köns- och genusperspektiv

Köns- och genusperspektiv i forskningen

Ja

Motivera ditt svar

A large majority of individuals suffering from fatigue, in the general population and in specific diagnostic groups, are women. Medical conditions and symptoms that are predominantly presented in women have historically been underprioritized in research and policy work, which is the case also for exhaustion disorder and fatigue across other medical conditions. The proposed project addresses the important issue of furthering our understanding of fatigue and improving quality of healthcare services for the patient group whose clinical presentation is one of the leading causes of long-term disability and sick leave in Sweden. We expect most participants in the trial to be women, but we believe that the proposed transdiagnostic intervention has the potential to improve quality of life and reduce suffering for all fatigued patients independent of gender. Importantly, the gender dimension will be part of all analyses throughout the project as we will investigate, e.g., the association between gender and diagnostics (possible gender biases), potential gender differences in cognitive and behavioral responses to fatigue, and gender as a putative moderator of treatment effect.

Forskningsplan

Se nästa sida för bilaga.

Fatigue as a transdiagnostic symptom dimension –
Novel approaches to assessment and treatment in primary care

Purpose and aims: Exhaustion disorder (ED, *swe, utmattningssyndrom*) is one of the most common and costly mental disorders in Swedish primary care. However, as part of a Swedish Research Council grant (Dnr 2020-06201) we recently showed that evidence for the validity of ED is limited and there are no evidence-based treatments. Internationally, it is well established that *fatigue* (the core symptom of ED) is a common sequalae of a range of somatic and psychiatric conditions. Recent research findings indicate that fatigue might better be conceptualized as a transdiagnostic symptom dimension rather than a diagnosis-specific pathology, and the same moderators and mechanisms of treatment effect have been found across fatigued patient groups. This paves the way for new, potentially more effective, approaches to treatment that may impact on how ED and other fatigued patient groups are managed in the primary care context.

The overarching purpose of this project is to further our understanding of fatigue as a transdiagnostic symptom in primary care patients and to build evidence for a highly accessible, transdiagnostic treatment that can be readily implemented in primary care clinics. Data will be collected within a multicenter randomized controlled effectiveness trial (RCT; *N*=500). The primary aim is to evaluate the effectiveness of a transdiagnostic, internet-delivered cognitive behavioral therapy (CBT) for fatigue adjunct to care as usual (CAU) for consecutively recruited primary care patients suffering from functionally disabling fatigue (>3 months duration). Primary outcome will be change in fatigue severity pre- to post-treatment, with long-term controlled follow-ups at 1- and 2-years after baseline. We further aim to study the mechanisms of treatment effect and identify potential subgroups of fatigued individuals across and within diagnostic categories that moderate treatment effect. Lastly, we aim to conduct a health economic evaluation of long-term treatment effects.

State of the art

Development of the Swedish exhaustion disorder diagnosis

ED is a medical diagnosis that was introduced to the Swedish version of the International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10) in 2005. The diagnostic criteria for ED were developed by a research group that was commissioned to investigate the rapid increase in sick-leave reimbursements due to mental disorders after a period of economic recession in Sweden in the late 1990's. Interviews with individuals on sick leave were conducted (results were not published) and the research group reported that many individuals described symptoms of fatigue and cognitive deficits that they largely attributed to psychosocial stressors and work-related strain. The research group thus proposed a set of criteria for a new, stress-induced disorder, characterized by mental and physical fatigue, that came to be called exhaustion disorder (ED).[1]

Status of exhaustion disorder

Since ED was introduced as a new diagnostic category, it has been debated both nationally and internationally.[2, 3] To date, ED has not been accepted into international editions of the Diagnostic and Statistical Manual of Mental Disorders or the ICD. In Sweden, however, the diagnosis is approaching prevalence rates like those of major depression[4] (acknowledged by the World Health Organization as the most common mental disorder worldwide). ED alone accounts for more long-term sickness absences than any other psychiatric or somatic disorder in Sweden.[5] As such, ED is associated with significant costs for afflicted individuals, employers, and for society at large.

Funded by a grant from the Swedish Research Council (Dnr 2020-06201) we recently conducted a review of all published empirical studies of ED[6] and mapped ED symptomatology in a large national survey.[7] Our review identified only 89 studies, most of which were cross-sectional and lacked control group. Findings from the review and the survey indicated that

individuals with ED form a heterogeneous group characterized by a range of psychiatric and somatic symptoms.[6, 7] The discriminant validity of the ED diagnosis is largely uninvestigated, as is the etiology of the disorder. Only eight RCTs of treatment - any type - for ED were found. Given the limited number of intervention studies with divergent theoretical underpinnings, no treatment has a strong evidence-base to date. Clinical recommendations for ED treatment nevertheless encourage extensive, multimodal, specialized rehabilitation programs. Such rehabilitation programs have not been evaluated in any RCT for patients with ED,[6] but have been subsidized by the Swedish government for many years. In February this year, a political decision was made to retract subsidization of specialized multimodal rehabilitation for ED and as of 2025 patients suffering from long-standing fatigue and ED will primarily be referred to primary healthcare clinics. **This necessitates rapid development of safe, efficient, and evidence-based care processes that are largely lacking to date.**

A broader scope on ED symptomatology
The clinical picture of ED is not unique to Sweden, nor to our time. To move the knowledgebase forward, it is essential to broaden the scope to multidisciplinary research conducted internationally on similar clinical presentations. *Fatigue* (the core of ED symptomatology) can be defined as extreme and persistent tiredness, weakness, or exhaustion that that could be mental physical, or both.[8] Fatigue is associated with increased healthcare consumption, work disability, and excess mortality[9] and has been studied extensively under different labels since the 1800's (e.g., neurasthenia, burnout, chronic fatigue syndrome).[10] Studies in primary care populations indicate that **about 20-30% of patients report fatigue, with up to 10% of patients presenting with fatigue as their main complaint**.[11]

Although often considered a disorder-specific characteristic, the etiology and pathogenesis of fatigue are largely unknown and generally believed to be multifactorial.[12] No biological markers or other objectively measurable factors (such as cognitive impairment) have been found that consistently and sufficiently explain the onset and perpetuation of disorder-specific fatigue.[6, 13] The high prevalence and non-specific nature of fatigue presents a challenge to general practitioners who generally have limited time and resources for assessment and intervention. Importantly, a potential break-through to how we can understand fatigue has been achieved in recent years, with studies showing that variance in fatigue severity is better explained by transdiagnostic factors (e.g., demographic and psychosocial variables and aspects of daily functioning) than by disorder-specific pathophysiology.[13] Further, the same perpetuating mechanisms of fatigue (such as fear avoidance, symptom catastrophizing, self-efficacy, and resting-behavior) have been found across disorders.[14] **These findings suggest that a transdiagnostic approach to understanding and treating persistent fatigue might be beneficial for patients and healthcare practitioners, with potentially important implications for treatment.**

Treatment of fatigue
As with other aspects of fatigue, intervention research on fatigue has been conducted in disorder-specific pipelines using disorder-specific protocols. CBT is the most studied treatment, with promising effects for patients with, for example, chronic fatigue syndrome,[15] fatigue after COVID-19,[15] and various long-term medical conditions where fatigue is often central[16] (both face-to-face and when delivered via the internet; ICBT).[17, 18] In our previous RCTs we have also found that CBT can be an effective treatment to reduce symptom burden in patients diagnosed with ED.[19, 20] Importantly, diagnosis-specific CBT-protocols for fatigue are largely similar across clinical groups, and the same cognitive and behavioral responses to fatigue have been found to moderate and mediate fatigue severity after CBT for patients with chronic fatigue syndrome, multiple sclerosis, Q-fever fatigue syndrome, and Type 1 Diabetes.[21]

Even though CBT appears to be promising, many fatigued patients still do not receive treatment, and not all patients who receive CBT are sufficiently helped. **Further research is needed into treatment moderators and mediators of change. Also, there is a significant knowledge gap regarding how fatigue can be identified and treated in an early phase the primary care context.** Given the similarities in effective treatment protocols across fatigued samples, together with potentially common change mechanisms, investigating the

effectiveness of a transdiagnostic treatment protocol is a promising avenue with enormous potential utility to increase clinical effects, accessibility, and large-scale implementation. To the best of our knowledge, no transdiagnostic treatment specifically targeting fatigue has been evaluated.

Significance and novelty

ED and other fatigue-dominated conditions are highly prevalent in primary care, but fatigue has traditionally been studied as a disorder-specific symptom in specialized healthcare settings. Given that short-term fatigue (1-3 months) is a strong predictor of long-term fatigue (>6 months), improved identification and early intervention in primary care may contribute to prevention of prolonged fatigue-states associated with suffering, impairment, and high societal costs.

The proposed project will have substantial effects both in the short and long term. In the short term, it will provide clinicians and policy makers with fundamental information about precipitating and perpetuating factors of fatigue within and across patient groups in primary care. By longitudinally collecting data on both self-reported symptoms and objective disease markers such as inflammatory markers, cognitive impairment, and sick leave, the project has potential to provide new and important insights into the dimensionality of fatigue. This is crucial for **improving assessment procedures and individualized treatment strategies**. Equally important, the project will **build an evidence-base for a highly accessible transdiagnostic treatment that is designed for implementation in the primary care context.** Transdiagnostic treatments are by nature **clinician friendly** (therapists learn only one treatment rather than many different but overlapping diagnosis-specific protocols) and **easy to implement**. Delivering the treatment via the internet, with individually tailored therapeutic support, is a **cost-effective** format that fits very well with the primary care context and that can be disseminated swiftly and broadly in primary care throughout Sweden. These factors are important given the limited resources in primary care. Long term effects of the project include that it can contribute to **development of national guidelines for assessment and treatment of fatigue**, **better use of healthcare resources, and a reduced general burden of fatigue in society.**

Preliminary and previous results

As a foundation to this project, we have conducted several RCTs in primary care settings of a 12-week CBT protocol for stress-related disorders, including ED. These trials have included more than 700 patients and results show that the treatment can be effective for symptom reduction in a face-to-face format, as stepped-care treatment, and as ICBT.[19, 20, 22] A health-economic evaluation of the ICBT showed that the treatment (vs. waitlist control) generated cost-savings from a societal perspective.[23] In an ongoing RCT in which we are evaluating the specificity of the ICBT for stress-related disorders compared to an internet-delivered control condition aimed at improving healthy habits (ClinicalTrials.gov Identifier NCT04797273), we included and treated 300 patients in one year at the Gustavsberg Primary Care Center. Based on this experience, we are confident that we will be able to include the target sample of *N*=500 fatigued patients for the proposed project given the high prevalence of the symptom and the multisite recruitment. Importantly, preliminary results (pre-post) from the ongoing RCT indicate that, whilst ICBT is superior to the control for patients with milder stress-related symptoms (i.e., adjustment disorder), ICBT is not superior to the control condition for patients diagnosed with ED. Although patients with ED are symptomatically improved pre- to post-intervention in both treatment conditions, they still report clinical symptoms post-treatment. These findings show that, whilst **internet-delivered treatments for ED are feasible and acceptable, the treatment model can be further improved to target ED-specific symptomatology (fatigue) more effectively**. Our extensive clinical experience of assessing and treating ED in primary care is that it is often difficult to distinguish ED from other (neuro-) psychiatric and somatic disorders. This prompts us to take initiatives to further investigate the validity of ED as a unique diagnostic construct.

Supported by a Swedish Research Council grant for planning of clinical therapy research (Dnr 2020-06201), we have worked to systematically increase our understanding of ED as a diagnostic construct with the aim to develop optimal treatment. As such, we have (1) conducted a **scoping review** of all published empirical studies of the ED diagnosis,[6] (2) conducted a **national online survey** of individuals diagnosed with ED and healthcare professionals working with the patient group to map symptoms and identify outcome domains that matter to patients,[7] and (3) established a **nationwide collaboration of multidisciplinary researchers** to collate expertise with the aim to prepare for a large multisite clinical trial. In brief, our work verifies our clinical experience and points to significant problems with the conceptualization of ED as a unique diagnostic category. Other ongoing studies in our group, in which we are investigating similarities and differences between ED, adjustment disorder, and major depression, strengthen this stance. The problems with ED validity and the inherent limitations of having a diagnostic construct that is acknowledged only in Sweden, motivates a more international outlook to move the knowledgebase forward. In **close collaboration with Professor Hans Knoop from the Amsterdam University Medical Centers**, whose research group has published a multitude of studies pointing to the transdiagnostic features of fatigue and how fatigue may be treated in different patient populations, we are currently taking steps to revise our ED treatment protocol to be adaptable to a broader fatigued primary care population.

Project description

Theory and method

Theoretical point of departure

A biopsychosocial perspective: This project takes a biopsychosocial perspective on fatigue, meaning that the clinical picture is assumed to be affected by an interplay of biological, psychological, and social/contextual factors. When faced by perceived threats to our wellbeing, our brain networks generate alarms in the form of automated bodily defense mechanisms consisting of interlinked immunological, hormonal, cognitive, and behavioral adjustments. These alarms manifest in symptoms, such as fatigue or pain, that have been selected through evolution to guide our behavioral responses and keep us safe. Although initially temporary and adaptive, these alarms may become persistent and maladaptive. Associative learning plays a key role in this development, meaning that innocent cues (by classical conditioning) can be learnt to trigger the alarm. As such, fatigue can arise from *expectations* **based on prior experience**.[24] To avoid feared situations and the triggering of symptoms, **changes in cognitive and behavioral repertoires** are common and may include **avoidance-/resting behavior** (e.g., minimizing physical or leisure activity), **unconscious bias in attention and interpretation** (e.g., catastrophizing), and **changes in perception effort**.[25] Building on this understanding, the presence of fatigue and other symptoms does not necessarily mean that activity is dangerous or that there is "lack of energy in the body". Rest is beneficial after acute stressors, such as an infection, but a gradual and controlled approach to increasing activity is crucial for rehabilitation. The transdiagnostic treatment for fatigue presented in this proposal is based on the idea that, by systematically approaching situations or activities that have become associated with fatigue, the systems described above can readapt to activity by breaking the association to conditioned triggers and the cognitive- and behavioural responses that perpetuate symptoms.

Measures of potential fatigue mechanisms: The systems describe above are generic and transdiagnostic, but they don't account for potential vulnerabilities that may explain why certain individuals develop persistent fatigue. Subjective complaints of cognitive impairment and influenza-like symptoms are common in fatigued patients,[8] but the association between these complaints and objective measures of, for example, cognitive functioning and inflammatory markers, is weak when studied in disorder-specific samples.[6, 13] The transdiagnostic dimensional approach to fatigue assumed in this proposal builds on the hypothesis that there may be *shared vulnerability factors in subgroups of individuals across disorders*. We will

therefore investigate objective cognitive functioning and inflammatory markers dimensionally and analyze whether these factors moderate treatment effect and whether within-person variation in cognitive functioning and inflammatory markers are associated with fatigue symptoms over time.

Study design

We propose to undertake a multisite, single-blinded RCT with consecutively recruited patients from primary care clinics in Region Stockholm. *Population*: Adults (18-65 years) presenting with functionally impairing fatigue (≥3 months); *Intervention*: Internet-delivered transdiagnostic CBT (**iFAS; Internet-delivered treatment for Fatigue Across Syndromes**) as an add-on to care-as-usual (CAU); *Control*: CAU only; *Outcome:* Primary; change in fatigue severity at post-intervention (see Variables and Measures below for details). **Figure 1** presents an overview of the study design. A feasibility study (*N*=15) will be conducted prior to the RCT to test the recruitment procedure and to receive qualitative input on treatment design and user experience.

Research questions:

RQ1. Is adjunct iFAS associated with a greater reduction in post-treatment fatigue severity and secondary outcome domains (self-rated symptoms, cognitive functioning, days on sick leave) compared to CAU and are any benefits maintained at 1- and 2-year follow-ups after baseline?

RQ2. For whom is the treatment effective and by which mechanisms? We hypothesize (1) that there will be transdiagnostic subgroups of patients that differ in treatment response based on baseline level of impairment, inflammatory markers, and cognitive impairment; (2) that changes in cognitive and behavioral responses to fatigue (e.g., fear avoidance, catastrophizing about symptoms) will mediate the effect of iFAS vs. CAU.

RQ3. Is iFAS vs. CAU a cost-effective treatment from a healthcare and societal perspective? Indirect (e.g., work absenteeism, sick leave) and direct (e.g., healthcare consumption) costs will be evaluated using data from national registers.
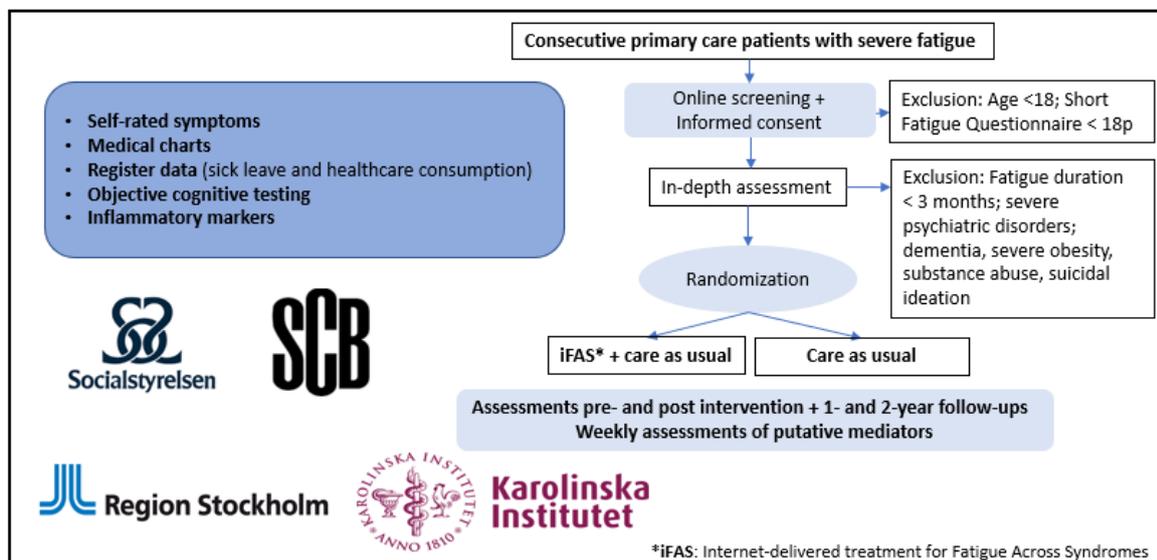
Fig. 1 Overview of study design

Patient selection

Consecutive adult patients will be referred to online screening if they (a) report at least three months of persistent, functionally disabling fatigue as a central symptom and (b) the general practitioner (GP) has assessed that the fatigue is not a direct effect of an active disease process motivating another treatment (e.g., hypo-/hyperthyroidism, anemia, cancer, dementia) or the effect of medication. Eligible patients will complete an initial online screening after giving digital informed consent. Exclusion criteria in this phase is a total score of <18 on the Short

Fatigue Questionnaire (SFQ).[26] Eligible patients undergo a one-hour medical examination by a GP and 1-2 hours of psychiatric assessment by a psychologist specially trained for the project. Exclusion criteria include severe psychiatric conditions (e.g., bipolar affective disorders, schizophrenia, anorexia nervosa, substance abuse) and suicidal ideation.

Variables and measures

<u>Online screening:</u> the SFQ[26] (4 items); sociodemographic (age, sex, level of education) and clinical questions (e.g., prior diagnoses, sick leave, medications).

<u>In-depth clinical assessment:</u> access to medical records, physical examination including lab-workup (as needed to complement the previous GP examination); lifetime anamnestic interview; Mini International Neuropsychiatric Interview for psychiatric morbidity and assessment of criteria for common fatigue-dominated diagnoses (e.g., ED, chronic fatigue syndrome).

RQ1: <u>Outcome measures:</u> All outcomes will be assessed pre- and-post-intervention and at 1- and 2-year follow-ups from baseline.

Primary outcome: **Fatigue severity** (self-rated) using the Checklist Individual Strength (CIS).[27] The domain Fatigue severity contains 8 items scored on a 7-point Likert scale (range 8-56; higher scores=more severe fatigue).

Secondary self-rated outcomes: Problems with concentrating, reduction in motivation, and reduced physical activity level (as assessed by subscales in the CIS); Somatic symptoms (PHQ-15); Depression (PHQ-9); Anxiety (GAD-7); Insomnia severity (ISI); Functional ability (WHODAS 2.0); Subjective sickness behavior (SQ-10).

Objective outcome measures: **Cognitive functioning** (attention and processing speed, executive functioning, and memory) will be assessed using a validated digital cognitive test battery provided by Mindmore.[28] This test-battery is used by us in an ongoing RCT with ED patients. Blood samples will be collected on-site at the primary care centers at all assessment points to analyze candidate biomarkers (e.g., **inflammatory markers**) for biological subgrouping. **Registry data** on sick leave will be obtained from the Microdata for Analysis of Social Security (MiDAS) registry of the National Insurance Agency. Healthcare consumption data will be retrieved from (1) the VAL-database[29] (healthcare consumption in primary care) covering all publicly funded healthcare in Region Stockholm, (2) the National Patient Register to retrieve data on all inpatient and specialist outpatient care, and (3) the National Prescribed Drug Register to retrieve data on all dispensed medications.

Other measures: Treatment credibility (week 2 and 8 in treatment), treatment satisfaction (post-treatment) and adverse events (post-treatment and at 1- and 2-year follow-ups) will be assessed.

RQ2 <u>Possible moderating factors of treatment effect:</u> Sociodemographic factors (e.g., gender, age, civil status, education), self-reported medical diseases, mental health disorders, blood inflammatory markers, objective cognitive impairment.

<u>Possible mechanisms of treatment effect</u>*:* Cognitive and Behavioral Responses to Symptoms Questionnaire, 18-items (CBRS, self-rated)[30] measures 7 subscales (fear avoidance, damage beliefs, embarrassment avoidance, symptom focusing, all-or-nothing behavior, avoidance/resting behavior). The CBRS will be administered weekly throughout the trial.

RQ3 <u>Health-economic analysis:</u> Registry data (see above under outcome measures) will be used to analyze net days of sick leave and healthcare consumption (primary and secondary care) to the 2-year follow-up.

Randomization and blinding

Included patients will be randomized 1:1 by a person not related to the study. Assessors will be blind to treatment allocation until the last follow-up.

Treatment

iFAS is based on the 12-week CBT-protocol that has previously been found effective in treating ED in the primary care context. The protocol will be adapted together with leading external experts within the area of fatigue-treatment (e.g., prof. Hans Knoop and co-workers, Netherlands) and stakeholders to suit a broader target group. Main components of the

treatment are: (1) structuring daily routines, (2) interventions to improve sleep, (3) behavioral activation (i.e., gradual increase in daily activity level in line with the individual's values), and (4) exposure techniques to break fear-avoidance patterns believed to perpetuate fatigue. These components are largely the same as treatment components used in CBT for chronic fatigue syndrome and other fatigue-dominated conditions (e.g., post-cancer fatigue, post-stroke fatigue), as well as for depression and anxiety disorders. The treatment will be presented to the patient in brief text-modules each week (with special selectable content to enable tailoring to individual needs), including multimedia components and exercises to be completed. Each patient will be supported by a therapist who will give weekly written feedback on exercises and progress and be available for questions and support every other day. Further, web-based live sessions will be scheduled throughout the treatment phase to support adherence and patient motivation. Care as usual includes any psychological or psychosocial intervention, physiotherapy, or pharmacological treatment in primary or secondary care.

Time plan and implementation

This project is planned to span over 4 years, including a 2-year follow-up. The present application is to initiate the project and collect data up to the 1-year follow-up to suit the 3-year time frame. We expect that a fourth year will be required to complete manuscripts, this is however a minor cost in this context, and we will complete the project regardless of whether we obtain additional funding for the fourth year.

2023 ongoing: Writing of application to Ethical Review Authority; Administrative preparations for compliance with the GDPR Act; Preparation of register data, assessment tools, and treatment. **2024**: Implementation of iFAS in the online platform. Trial registration at ClinicalTrials.gov and Open Science Framework (osf.io). Training of clinicians in study procedures. Feasibility study to safeguard recruitment strategy and get qualitative input on intervention design and utility; start of participant recruitment. **2025**: Continued recruitment and treatment of participants, data-collection. **2026**: Completion of the treatment phase, 1-year follow-up assessments, data analysis. ***2027****: Manuscript preparation (we expect at least four publications from the project) and dissemination of results.*

Implementation: iFAS will be delivered via *Stöd och behandlingsplattformen* (SoB), a digital platform provided by Sweden's municipalities and Regions, which is available free of charge for all healthcare providers in Sweden. Should the treatment prove to be effective, it can be swiftly disseminated to the approximately 1500 primary care centers in Sweden without delay. The research group has extensive experience and competence in using this platform for providing ICBT in both research and routine primary care. Implementation, if relevant, can be initiated immediately when data from long-term follow-ups have been analyzed. Results from all analyses will be reported in accordance with the Consolidated Standards of Reporting Trials statement for non-pharmacological trials (CONSORT) and Consolidated Health Economic Evaluation Reporting Standards (CHEERS) irrespective of outcome. Results will be published open access in peer-reviewed journals and will be widely disseminated via social media, press, clinical seminars, and international conferences.

Anticipated risks and mitigation strategy: Given the high prevalence of fatigue and the multicenter study design, we do not anticipate problems with patient recruitment. If recruitment takes longer than anticipated, additional primary care sites will be engaged. In our previous RCTs of ICBT we have had no serious adverse events and we are confident that iFAS will we a feasible and safe treatment. Adverse events will be monitored throughout the trial by (1) regular supervision of clinicians, (2) weekly correspondence with included patients in the iFAS-condition during the treatment phase, (3) weekly monitoring of suicide-risk by administering the suicide-item in the PHQ-9 to all study participants during the treatment phase (and making formal suicide-assessments on indication), and (4) collecting patient-reported adverse-events post-treatment and at follow-ups.

Project organization

Principal Investigator: **Elin Lindsäter**, lic. psychololgist, PhD, Gustavsbergs Academic Primary Care Center, Stockholm, and researcher at the Department of Clinical Neuroscience, Karolinska Institutet (KI). Lindsäter will coordinate the project (60%) together with professors

Erik Hedman-Lagerlöf (30%) and **Christian Rück** (20%) at KI. The group has extensive clinical experience of fatigued patients in primary care, a track record of pioneering development of CBT treatment protocols for several disorders, running randomized clinical trials, implementing them in healthcare settings since 2007, and making treatments available nationally. The infrastructure for the most crucial parts of this study (recruitment, data collection, and quality control including techniques to limit data loss) exists within the group, as does competence in statistics and regulatory frameworks (GCP, GDPR). **Douglas Sjöwall** (10%), PhD, Department of Clinical Neuroscience, KI, and Region Stockholm Habilitation, has developed and tested transdiagnostic treatments for functional impairment in routine care settings, which is a valuable experience for the project. **Anna Andreasson**, Ass. Prof. at the Stress Research Institute, Stockholm University, has expertise in inflammatory markers and fatigue (10% full time). **Alexis Cullen** (10%), PhD, senior researcher in psychiatric epidemiology in the Division of Insurance Medicine, KI. Cullen has extensive experience of designing and conducting register-based research projects and using these data to evaluate complex psychological interventions. Cullen also holds expertise in analyzing stress- and inflammatory biomarkers.

Important collaborators who will contribute with clinical management (e.g., administrative procedures, patient safety, and allocation of clinical resources) to enable the conduct of the trial will be **Dr. Kersti Ejeby**, general practitioner, PhD, Head of Gustavsberg Academic Primary Care Center, **Dr. Jeanette Scantz-Holmberg**, nurse, PhD, and head of Huddinge Primary Care Center, and **Dr. Pontus Almer Boström,** MD, PhD, Specialist in General Medicine and Unit Manager for Primary Care Physicians at Boo Primary Care Center. A clinical psychologist (**Frank Svärdman**) is expected to be a registered PhD-student in the fall of 2023 and will work 50% in the project. **Professor Hans Knoop** at University Medical Centers, Amsterdam, Netherlands, will contribute with expertise regarding assessment and treatment development for fatigue across chronic medical disorders.

Data analysis and statistics

Estimated sample size and power: For 90% power to detect a standardized between-group effect size of d=0.25 on the primary outcome (α=.05), an intraclass correlation between measurements of 0.7, and an expected attrition of 20%, 250 patients will be included in each arm (total sample size: N=500).

Statistical methods: All analyses will be based on an intention-to-treat approach. Change in the primary outcome measure will be analyzed using mixed effects linear regression. Fixed predictors in these analyses will be time, group and their interaction effect while taking individual variation in baseline symptom levels and change over time into account (i.e., random intercept and slope). Nominal level data will be analyzed using chi-2 test and, where additional covariates are justified to include in the analyses, logistic regression. Between-group difference in total days of sick leave (full day equivalents) during the follow-up period will be analyzed with linear regression models holding sick leave status 6 months before baseline as covariate. The moderator analysis will be conducted using linear mixed effects regression models with full information maximum likelihood estimation. To estimate the controlled effect of the moderators, the primary outcome of symptom severity will be regressed on predictors time (baseline to post-treatment), group (iFAS vs. CAU), and the putative moderator resulting in a 3-way interaction between the moderator, time, and group. For the mediation analysis we will use latent growth modeling for longitudinal mediation, which combines the strengths of latent variable modeling in the structural equation framework and growth modeling with random effects. Finally, in the health-economic analyses we will investigate incremental cost-effectiveness ratio (ICER), i.e., the net cost in relation to the net effects between the two treatment conditions, using bootstrap methods and presented in ICER planes and through cost-effectiveness acceptability curves. This will be done both from a societal (direct and indirect costs) and healthcare perspective (direct costs) and we will assess cost-effectiveness (effect variable is symptomatic improvement) as well as cost-utility (effect variable is quality adjusted life years).

Equipment

The BASS platform, a core facility provided by KI, will be used to administer self-reported questionnaires and clinical data. The research group has used this platform for 15 years in numerous research projects and it has been shown to be highly stable, flexible, and safe from a data protection perspective. *Stöd och Behandlingsplattformen*, provided by Sweden's municipalities and Regions, will be used to deliver iFAS. This platform is available free of charge for all healthcare providers in Sweden.

Need for research infrastructure

The most important clinical infrastructure will be the staff and resources at the primary care clinics where the project will be conducted. Supporting trial documents and other information from kliniskastudier.se will be used.

International and national collaboration

Collaboration with two participating primary care centers in Region Stockholm (apart from Gustavsberg's Primary Care Center) has already been established (Huddinge Primary Care Center and Boo Primary Care Center). Further, supported by the Swedish Research Council (Dnr 2020-06201) our research group has established a **national research network** to bring together resources and expertise across the country and across disciplines that have previously been loosely or not at all connected. This has resulted in activities including a **live-streamed conference** with over 1000 participants, hosting ED-researchers from a range of Swedish universities, and a series of **national research seminars** where common challenges and future research avenues and collaborations were discussed. The research questions in the current proposal are heavily inspired by discussions in the network's seminars, and an application has been submitted for the Swedish Research Councils grant for clinical study within therapy research 2023. In that application, **five regions in Sweden have prepared collaboration to recruit and treat patients with the new transdiagnostic treatment targeting fatigue.** A central international collaborator is Professor Hans Knoop, **University Medical Centers, Amsterdam, Netherlands**, who will contribute with expertise regarding assessment and treatment development for fatigue across diagnostic groups. Knoop will visit Sweden in September 2023 to give a **national lecture and hold a workshop for primary care clinicians** who plan to work in the proposed project. Other international collaborators include Professor Henrik Borsting Jacobsen and Professor Silje Reme at the **University of Oslo, Norway**, and Ass. Professor Renzo Bianchi at the **Norwegian University of Science and Technology**. The proposed project in this application will contribute to further international collaboration.

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Relevans

Relevans för primärvård

This proposal is highly relevant for primary care and the current Research Council call for several reasons. First, fatigue is the main complaint of up to 10% of primary care patients and is associated with increased healthcare consumption, work disability, and excess mortality. The fatigue-dominated *exhaustion disorder* diagnosis is set in 15% of all patients with mental health problems in Swedish primary care (Cullen et al. 2023), for which there are no evidence-based treatments. Importantly, fatigue is a complex and non-specific symptom, and the validity of ED as a unique diagnostic construct has been insufficiently studied. **The significant knowledge-gaps constitute a risk for the large group of afflicted patients who may not receive equitable and safe care, but also a substantial stressor for primary care clinicians who lack guidelines for assessment and treatment.**

Second, a central aim of the present project is to build an evidence-base for a transdiagnostic internet-delivered treatment for fatigue. In doing so, we will use a technical platform already available for primary care centers in all of Sweden. Delivering treatment via the internet, with individually tailored therapeutic support, is **a format that fits very well with the primary care context** and that can be disseminated swiftly and broadly in primary care throughout Sweden. Targeting fatigue as a transdiagnostic symptom dimension, rather than evaluating separate treatment protocols for different patient groups where fatigue is common, potentiates a more effective use of resources and knowledge accumulation. Further, transdiagnostic treatments are by nature **clinician friendly** (therapists learn only one treatment rather than many different but overlapping diagnosis-specific protocols) and **easy to implement**. This is important given the limited resources in primary care.

Third, due to the strong association between fatigue, functional impairment, and sick leave, general practitioners are often obliged to handle social insurance aspects (i.e., requests for sick leave and making rehabilitation plans) based on limited evidence of what constitutes best practice. They would be much helped by research that clarifies differences and overlaps between diagnostic entities where fatigue is a prominent symptom, and by research investigating a potentially effective treatment adapted for the primary care context. We have previously found that a brief, internet-delivered treatment in a primary care context generated societal cost-savings for patients with ED (Lindsäter et al. 2019). The current proposal will build on that finding using a revised treatment protocol (for a broader fatigued population), an extended time-horizon (2 years), and registry data for sick leave and healthcare consumption as opposed to self-reported data. **Findings may have implications for national recommendations for sick leave reimbursement and rehabilitation practices and be of great assistance in the daily work of general practitioners.**

Lastly, this research project is firmly rooted in primary care. The clinical basis for this project is Gustavsbergs Academic Primary Care Center in Stockholm and the internet-delivered treatment has been **developed by primary care clinicians for primary care patients**. By involving **international collaborators** and using internationally acknowledged fatigue-scales and other outcome domains, the project will enable comparisons with a range of fatigued samples as well as future pooling of datasets. Together with the use of interdisciplinary data and long-term follow-ups, this project will, if granted funding from the Research Council, **contribute to a substantial strengthening of primary care research**.

Aktivitetsgrad i projektet

Roll i projektet	Namn	Procent av heltid
1 Projektledare	Elin Lindsäter	60%
2 Medverkande forskare	Douglas Sjöwall	10%
3 Medverkande forskare	Anna Andreasson	10%
4 Doktorand	Frank Svärdman	50%
5 Övrig ej disputerad personal	Project administrator	40%
6 Övrig ej disputerad personal	GP for project related work	20%
7 Övrig ej disputerad personal	Psychologist for project related work	30%
8 Medverkande forskare	Alexis Cullen	10%

Löner inklusive sociala avgifter

Roll i projektet	Namn	Procent av lönen
1 Projektledare	Elin Lindsäter	60%
2 Medverkande forskare	Douglas Sjöwall	10%
3 Medverkande forskare	Anna Andreasson	10%
4 Doktorand	Frank Svärdman	50%
5 Övrig ej disputerad personal	Project administrator NN	40%
6 Övrig ej disputerad personal	GP NN	20%
7 Övrig ej disputerad personal	Psychologist NN	30%
8 Medverkande forskare	Alexis Cullen	10%
Totalt		

	2024	2025	2026	Totalt
1	540 000	540 000	540 000	1 620 000
2	90 000	90 000	90 000	270 000
3	86 400	86 400	86 400	259 200
4	342 000	342 000	342 000	1 026 000
5	201 600	201 600	201 600	604 800
6	288 000	288 000	288 000	864 000
7	216 000	216 000	216 000	648 000
8	77 400	77 400	77 400	232 200
Totalt	1 841 400	1 841 400	1 841 400	5 524 200

Lokaler

Typ av lokal	2024	2025	2026
Ingen information ifylld			

Driftskostnader

Driftskostnader	Beskrivning	2024	2025	2026	Totalt
1 Online BASS platform	KI core facility measurement system	50 000	50 000	50 000	150 000
2 Mindmore	Cognitive testbattery	40 000	40 000	40 000	120 000
3 Miscellaneous	Other costs, e.g., for software, travel, conferences	35 000	20 000	25 000	80 000
4 Open access publication	costs for OA publications in scientific journals	0	50 000	75 000	125 000
5 Registry data	Linkage and extraction	30 000	30 000	30 000	90 000
Totalt		155 000	190 000	220 000	565 000

Avskrivningar utrustning

Avskrivning	Beskrivning	2024	2025	2026
Ingen information ifylld				

Total budget

	Specificerade kostnader	2024	2025	2026	Totalt, sökt	Annan kostnad	Total kostnad
1	Löner inkl. sociala avgifter	1 841 400	1 841 400	1 841 400	5 524 200	0	5 524 200
2	Driftskostnader	155 000	190 000	220 000	565 000	0	565 000
3	Avskrivningar utrustning				0	0	0
4	Lokaler				0	0	0
5	Delsumma	1 996 400	2 031 400	2 061 400	6 089 200	0	6 089 200
6	Indirekta kostnader	399 280	406 280	412 280	1 217 840	0	1 217 840
7	Total projektkostnad	2 395 680	2 437 680	2 473 680	7 307 040	0	7 307 040

Motivering av sökt budget

The funding from the Swedish Research Council will first and foremost cover costs pertaining to researchers and staff working with the project. We assess that a project of this magnitude requires stable and substantial activity from the main applicant and co-applicants throughout the three-year period. We therefore estimate that the time spent in the research project for Elin Lindsäter will be 60% and for Douglas Sjöwall, Anna Andreasson, and Alexis Cullen 10% respectively. Co-PI's Erik Hedman-Lagerlöf and Christian Rück are heavily involved in the project and will work 30% and 20% of full time respectively, however their salaries are covered by other sources. A clinical psychologist (Frank Svärdman) is already involved in preparations for the study and will be registered as a PhD-student in the fall of 2023. He will work 50% in the project. Lindsäter will be the main supervisor of Svärdman and they will work together to coordinate the multisite study.

Given the clinical nature of this project and the fairly large-scale randomized controlled trial that will be conducted (total N= 500) it will be necessary to engage primary care clinicians (psychologist 30%; GP 20%) who can act as supervisors and instructors for clinicians at the different study sites who will conduct assessments and treatments in the trial. These involved clinicians need time for education and participation in study discussions and seminars and will have an important role in ensuring that study procedures regarding recruitment are implemented at each site in accordance with the study protocol. When it comes to staff resources, it will also be necessary that the project has a project administrator of approximately 40% of full time. This person will have an administrative role and important work tasks will be to schedule appointments for study assessment interviews (we expect that about 1500 inclusion assessments will be needed to achieve a final study sample of 500 patients), to assist study participants in handling difficulties in using online platforms (e.g., help with problems logging in), and to remind patients to conduct assessments at short and long-term follow-ups (through telephone calls, mail and SMS text messages).

Budget posts not related to staff is a small part of the total project costs (about 7%). These costs pertain to research infrastructure and data-collection platforms and storage such as the BASS platform, which is a Karolinska Institutet Core Facility, a digital platform for administrating cognitive test batteries, and costs related to registry data linkage and extraction. Finally, the small miscellaneous budget post is for costs relating to e.g., statistical software, presenting study results at scientific conferences, and - if needed - purchase of one or two laptop computers. Given that we aim to publish some of the preparatory work conducted for the trial (e.g., the feasibility study), costs for open access publication in peer-reviewed scientific journals conduce one budget post.

Annan finansiering för detta projekt

Finansiär	Sökande/projektledare	Typ av bidrag	Status	Dnr eller motsv.
	2024		2025	2026
Ingen information ifylld				

Sökandes publikationslista

Se nästa sida för bilaga.

Publication list, Elin Lindsäter

Selection of publications

1. Cullen A E, **Lindsäter E,** Rahman S, Taipale H, Tanskanen A, Mittendorfer-Rutz E, Helgesson M. Patient factors associated with receipt of psychological and pharmacological treatments among individuals with common mental disorders in Swedish primary care. BJPsych Open. 2023;9:e40
   Contributed to study design, co-authored study protocol and manuscript, consulted on interpretation of registry data. Results important for understanding provision of treatment delivered to different diagnostic groups with common mental disorders in primary care.

2. **Lindsäter E**, Svärdman F, Rosquist P, Wallert J, Ivanova E, Lekander M, Söderholm A, Rück C. Characterization of exhaustion disorder and identification of outcomes that matter to patients: Qualitative content analysis of a Swedish national online survey. Stress and health. 2023;1-15.
   I designed the study and was the operative leader of every step from recruiting participants, analyzing results, and drafting the manuscript. It is the largest qualitative analysis within the field of exhaustion disorder and informs of the real-life clinical experience of fatigue and the significant diagnostic overlap with other conditions.

3. **Lindsäter E,** Svärdman F, Wallert J, Ivanova E, Söderholm A, Fondberg R, et al. Exhaustion disorder: scoping review of research on a recently introduced stress-related diagnosis. BJPsych Open. 2022;8(5):e159–e159.
   I designed and led the project. First review to compile all published empirical studies of exhaustion disorder. This review shows the symptomatic heterogeneity of patients with exhaustion disorder and raises the question of its diagnostic validity while highlighting the need for a common international conceptualization of fatigue.

4. Svärdman, F., Sjöwall, D., and **Lindsäter, E**. Internet-delivered cognitive behavioral interventions to reduce elevated stress: A systematic review and meta-analysis. Internet Interventions. 2022;29:100553–100553.
   As last author, I contributed to the design of the study, supervised the first author in conducting analyses, and co-wrote the first draft of the manuscript. The study gives an important overview of the content of, and effect of, of Internet-delivered CBT with implications for the study here applied for.

5. **Lindsäter E**, Axelsson E, Salomonsson S, Santoft F, Ljotsson B, Akerstedt T, Lekander M, Hedman-Lagerlöf E. The Mediating Role of Insomnia Severity in Internet-Based Cognitive Behavioral Therapy for Chronic Stress: Secondary Analysis of a Randomized Controlled Trial. *BRAT.* 2021;136:103782.
   Operative leader, conducted analyses, wrote the manuscript. This study replicated previous findings indicating that reduction in insomnia severity mediates the effect of cognitive behavioral therapy for patients with exhaustion disorder, emphasizing the importance of incorporating sleep interventions in a transdiagnostic fatigue treatment.

6. Santoft F, Hedman-Lagerlöf E, Salomonsson S, **Lindsäter E**, Ljótsson B, Kecklund G, Lekander M, Anna Andreasson. Inflammatory cytokines in patients with common mental disorders treated with cognitive behavior therapy. BBI Health. 2020;3:100045–100045.
   I was a clinician in the study, for which I also wrote a treatment manual. I supported patients in blood-testing and lab-procedures which is of importance for the current project. The study found that higher levels of the pro-inflammatory cytokine TNF-alpha was associated with more severe symptoms in patients with common mental disorders.

7. **Lindsäter E**, Axelsson E, Salomonsson S, Santoft F, Ljotsson B, Akerstedt T, Lekander M, Hedman-Lagerlöf E. Cost-Effectiveness of Internet-Based Cognitive Behavioral Therapy for Stress-Related Disorders: Secondary Analysis of a Randomized Controlled Trial. J Med Internet Res. 2019;21:e14675.
   Operative leader, conducted analyses, wrote the manuscript. Results showed that internet-based cognitive behavioral therapy for patients with adjustment disorder or

exhaustion disorder is cost-effective from a societal perspective and associated with cost-savings for the healthcare clinic compared with waiting for treatment.

8. **Lindsäter E**, Axelsson E, Salomonsson S, Santoft F, Ejeby K, Ljotsson B, Akerstedt T, Lekander M, Hedman-Lagerlöf E. Internet-based cognitive behavioral therapy for chronic stress: A randomized controlled trial. Psychother Psychosom. 2018;87(5):296-305.
I designed the treatment, project leader. Published in one of the top-ranked psychiatric journals (IF=25), this randomized controlled trial showed that internet-based cognitive behavior therapy vs. a waitlist control can reduce symptom severity, insomnia and physical and mental exhaustion/fatigue for stressed and fatigued patients.

9. Salomonsson S, Santoft F, **Lindsäter E**, Ejeby K, Ljotsson B, Ost LG, Ingvar M, Lekander M, Hedman-Lagerlof E. Cognitive-behavioural therapy and return-to-work intervention for patients on sick leave due to common mental disorders: A randomised controlled trial. Occup Environ Med. 2017;74(12):905-12.
One of three project managers. I contributed with staffing and educating clinicians, assessment and treatment of patients, and data-collection. This study was a multisite primary care RCT indicative of the research group's experience of working with multisite collaborations including long-term follow-ups and registry data.

10. Salomonsson S, Santoft F, **Lindsäter E**, Ejeby K, Ljotsson B, Ost LG, Ingvar M, Lekander M, Hedman-Lagerlof E. Stepped care in primary care - guided self-help and face-to-face cognitive behavioural therapy for common mental disorders: A randomized controlled trial. Psychol Med. 2017:1-11.
One of three project managers. I contributed with staffing and educating clinicians, clinical work, and data-collection. This study was a multisite primary care RCT indicative of the research group's experience of working with multisite collaborations and developing highly accessible treatment alternatives for implementation in primary care.

Relevant publications from 2015–2023

Peer-reviewed original articles

1. Cullen A E, **Lindsäter E,** Rahman S, Taipale H, Tanskanen A, Mittendorfer-Rutz E, Helgesson M. Patient factors associated with receipt of psychological and pharmacological treatments among individuals with common mental disorders in Swedish primary care. BJPsych Open. 2023;9:e40

2. **Lindsäter E**, Svärdman F, Rosquist P, Wallert J, Ivanova E, Lekander M, Söderholm A, Rück C. Characterization of exhaustion disorder and identification of outcomes that matter to patients: Qualitative content analysis of a Swedish national online survey. Stress and health. 2023;1-15.

3. Svärdman, F., Sjöwall, D., and **Lindsäter, E**. Internet-delivered cognitive behavioral interventions to reduce elevated stress: A systematic review and meta-analysis. Internet Interventions. 2022;29:100553–100553.

4. **Lindsäter E**, Axelsson E, Salomonsson S, Santoft F, Ljotsson B, Akerstedt T, Lekander M, Hedman-Lagerlöf E. The Mediating Role of Insomnia Severity in Internet-Based Cognitive Behavioral Therapy for Chronic Stress: Secondary Analysis of a Randomized Controlled Trial. *BRAT* 2021;136:103782.

5. Salomonsson S., Santoft F., **Lindsäter E**., Ejeby K., Ljotsson B., Ost LG., Ingvar M., Lekander M., Hedman-Lagerlof E. Effects of cognitive behavioural therapy and return-to-work intervention for patients on sick leave due to stress-related disorders: Results from a randomized trial. Scandinavian Journal of Psychology. 2020; 61(2):281–9.

6. Santoft F, Hedman-Lagerlöf E, Salomonsson S, **Lindsäter E**, Ljótsson B, Kecklund G, Lekander M, Anna Andreasson. Inflammatory cytokines in patients with common mental disorders treated with cognitive behavior therapy. BBI Health. *2020;3:100045–100045.*

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11. **Lindsäter E**, Axelsson E, Salomonsson S, Santoft F, Ejeby K, Ljotsson B, Akerstedt T, Lekander M, Hedman-Lagerlöf E. Internet-based cognitive behavioral therapy for chronic stress: A randomized controlled trial. Psychother Psychosom. 2018; 87: 296-305.

12. Salomonsson S, Santoft F, **Lindsäter E**, Ejeby K, Ljotsson B, Ost LG, Ingvar M, Lekander M, Hedman-Lagerlof E. Cognitive-behavioural therapy and return-to-work intervention for patients on sick leave due to common mental disorders: A randomised controlled trial. Occup Environ Med. 2017; 74: 905-12

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14. Axelsson E., **Lindsäter E**., Ljótsson B., Andersson E., Hedman-Lagerlöf E. The 12-item Self-Report World Health Organization Disability Assessment Schedule (WHODAS) 2.0 Administered Via the Internet to Individuals with Anxiety and Stress Disorders: A Psychometric Investigation Based on Data From Two Clinical Trials. JMIR Mental Health. 2017;4(4):e58–e58.

Research review articles

1. **Lindsäter E,** Svärdman F, Wallert J, Ivanova E, Söderholm A, Fondberg R, et al. Exhaustion disorder: scoping review of research on a recently introduced stress-related diagnosis. BJPsych Open. 2022;8(5):e159–e159.

Other publications

1. Rück C, **Lindsäter E**, Cervenka S. *"Rigorösare utvärdering krävs av nya behandlingsformer vid utmattning"*. Läkartidningen Debatt. 2022 July 28.

2. Rück C, **Lindsäter E**, et al. *"Behandling av utmattade måste bygga på vad som hjälper"*. DN Debatt. 2022 May 25.

3. Rück C, **Lindsäter E**, et al. *"De utmattade måste få tillgång till rätt vård"*. DN Debatt. 2022 May 13.

4. **Lindsäter E**. Cognitive Behavioral Therapy for Stress-Related Disorders. 2020. Doctoral Thesis from Department of Clinical Neuroscience, Karolinska Institutet, Stockholm. ISBN 978-91-7831-667-0.

5. Kognitiv beteendeterapi för stress- och utmattningsproblematik: En självhjälpsbehandling. (CBT Treatment manual for stress and exhaustion disorder). 2019. Published by Region Stockholm.

Number of publications

Peer-reviewed original articles:	14
Peer-reviewed research review articles	1
Other publications including patent	5
Peer-reviewed original articles (2015-2023)	14
Other publications including patents (2015-2023)	5

Medverkande forskares publikationslistor

Se nästa sida för bilaga.

Cullen AE, Lindsäter E, Rahman S, Taipale H, Tanskanen A, Mittendorfer-Rutz E, Helgesson M (2023) Patient factors associated with receipt of psychological and pharmacological treatments among individuals with common mental disorders in a Swedish primary care setting. *BJPsych Open*, 28; 9(2): e40. PMID: 36852532.

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CV

CV - Elin Lindsäter

Projektledare: Elin Lindsäter	**Dr-examen:** 2020-03-11
Födelsedatum: 19810303	**Akademisk titel:** Doktor
Kön: Kvinna	**Arbetsgivare:** Stockholms län landsting
Land: Sverige	

Doktorsexamen

Examen	Organisation	Avhandlingens titel (originalspråk)	Handledare
30215. Psykiatri, 2020-03-11	Karolinska Institutet	Cognitive behavioral therapy for stress-related disorders	Erik Hedman

Utbildning

Forskarutbildning

Examen	Organisation	Avhandlingens titel	Namn på handledare
Doktorsexamen, 30215. Psykiatri, 2020-03-11	Karolinska Institutet, Sverige	Cognitive behavioral therapy for stress-related disorders	Erik Hedman

Utbildning på grund- och avancerad nivå

År	Examen
2007	501. Psykologi, Psykologexamen/motsv, Lunds universitet, Sverige

Arbetsliv

Anställningar

Period	Anställning	Del av forskning i anställningen (%)	Arbetsgivare	Övrig information
februari 2020 - Nuvarande	Postdoktor, Tillsvidareanställning	70	Stockholms län landsting	Pågående
juni 2014 - februari 2020	Doktorand, Projektanställning	50	Stockholms län landsting, Sverige, Gustavsbergs Vårdcentral	Övriga 50% arbetade jag kliniskt som leg. psykolog på Gustavsbergs vårdcentral.
april 2009 - juni 2014	leg. psykolog, Tillsvidareanställning	0	Stockholms län landsting, Sverige, Gustavsbergs Vårdcentral	Fortsatt kliniskt arbete på 50% efter 2014 parallellt med klinisk forskning.

Postdoktorvistelser

Period	Organisation	Ämne
januari 2021 - januari 2024	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	30215. Psykiatri

Uppehåll i forskningen	
Period	**Beskrivning**
2017-02-01 - 2017-09-30	Parental leave

Meriter och utmärkelser

Handledda personer				
År	**Handledda personer**	**Lärosäte (handledd person)**	**Roll**	**Antal**
	Student		Huvudhandledare	2
2026	Doktorand, Victoria Sennerstam		Bihandledare	

Bidrag erhållna i konkurrens					
Period	**Finansiär**	**Projektledare**	**Din roll**	**Delbelopp (kr)**	**Totalt belopp (kr)**
2023 - 2025	FORTE, Sverige - Övriga statliga medel	Anna Andreasson	Medverkande	0	4 971 000
2022 - 2025	Vetenskapsrådet (VR), Sverige - Övriga statliga medel	Erik Hedman-Lagerlöf	Medverkande	0	2 400 000
2022 - 2022	Stockholms Universitet - SLSO, Sverige - Regioner och kommuner	Gustav Nilsonne	Medverkande	1 000 000	2 000 000
2022 - 2024	Region Stockholm, Sverige - Regioner och kommuner	Elin Lindsäter	Projektledare	0	900 000
2022 - 2025	Region Stockholm, Sverige - Regioner och kommuner	Elin Lindsäter	Projektledare	0	2 000 000
2021 - 2022	Vetenskapsrådet (VR), Sverige - Övriga statliga medel	Christian Rück	Medverkande	0	1 000 000
2021 - 2023	Stockholms universitet - SLSO, Sverige - Regioner och kommuner	Mats Lekander	Medverkande	0	1 900 000
2020 - 2023	ALF-medel, Sverige - Övriga statliga medel	Erik Hedman-Lagerlöf	Medverkande	0	1 500 000
2020 - 2023	Stockholm Universitet-SLSO, Sverige - Regioner och kommuner	Erik Hedman-Lagerlöf	Medverkande	0	1 900 000
2019 - 2023	FORTE, Sverige - Övriga statliga medel	Erik Hedman-Lagerlöf	Medverkande	0	4 100 000

Övriga meriter		
Period	**Typ av merit**	**Beskrivning**
2014 - 2025	Teaching	I regularly teach both regionally and nationally within the following subjects: (1) clinical assessment and treatment for fatigue and stress related disorders, (2) insurance medicine and psychological interventions to prevent sick leave, (3) clinical assessment/diagnostics and evidence-based care within primary care. A sample of places where I teach; clinical psychology students at Karolinska Institutet, resident doctors and other clinicians working with psychosocial care in Region Stockholm, Kronoborgs Län, and in Region Skåne.

Period	Typ av merit	Beskrivning
2021 - 2024	Postdoctoral positions	I currently hold two postdoctoral positions at Karolinska Institutet: One position with Professor Christian Rück where we focus on investigating the validity of the Swedish diagnosis exhaustion disorder (utmattningssyndrom), and the other with Professor Erik Hedman-Lagerlöf with focus on internet-based treatments for chronic stress and fatigue in the primary care context.
2023 - 2023	Chair, halftime committee	For doctoral student Tiina Holmberg Bergman, 17 feb 2023.
2021 - 2023	Initiator of national research network	Created a national network of researchers within the field of exhaustion disorder (utmattningssyndrom) to promote exchange of knowledge and increased collaboration. The network has since had yearly research conferences held by research groups in different parts of Sweden.
2020 - 2023	Clinical superviser	Five psychologist in training (PTP), two clinical psychologist in their specialist thesis, and one resident doctor for specialist thesis (ST).
2022 - 2023	Chair, scientific symposium	Organizer and Chair of a symposium about Internet-based CBT at the EABCT (European Association for Behavioral Cognitive Therapies) in Barcelona in August 2022. Organizer and Chair of a symposium about fatigue at the EWCBR (European Winter Conference on Brain Research) in March 2023.
2021 - 2023	Media appearances	Several opinion pieces/articles for debate in DN Debatt and Läkartidningen. Interviews for podcasts (e.g., Medicinvetarna, Stressforskningspodden, Psykologisk forskning, Psykologiradion) and several newspapers (e.g., Dagens Nyheter, Aftonbladet, MåBra, Medicinsk Vetenskap). Interviews/presentations in televised media (e.g., SVT Aktuellt, Vetenskapens värld, UR Samtiden).
2020 - 2023	Peer reviewer	Reviewer for several scientific journals, e.g., JMIR (Journal of Medical Internet Research), BMC, and Scientific Reports.
2019 - 2022	Commission of trust	Coordinator of Stockholm Stress Collaborative (SSC); a research network with the purpose of disseminating interdisciplinary research within the field of stress and psychological well-being to other researchers, government agencies, and the public.
2019 - 2022	Commission of trust	Listed as expert of treatment for stress-related disorders at Beteendeterapeutiska Föreningen, the largest Swedish Association of cognitive and behavioral therapies.
2021 - 2021	Arranging research conferences	Arranged the national research conference "Ögat på Stressforskning – från forskning till praktik" in Stockholm with approximately 1000 digital participants in April 2021. I also arranged a national research conference for researchers within the field of exhaustion disorder (utmattningssyndrom) in Stockholm, Oktober 2021
2021 - 2021	Co-project leader at Region Stockholm	Development of digital support systems and digital training for all primary healthcare centers in Region Stockholm (within the STEP-UP project) to promote the implementation of evidence-based psychological treatment models. Co-project leader 50%.
2020 - 2020	Discussant of doctoral thesis	Discussant of the doctoral thesis by Robert Persson Asplund, Linköpings Universitet. December 2020.
2016 - 2016	Organizing committee for international conference	Part of the organizing committee of the 46th International congress of the European Association for Behavioural and Cognitive Therapies (EABCT), Stockholm, 2016.
2011 - 2012	Commission of trust	Vice president of the Association for Swedish CBT-psychologists ("Föreningen för Sveriges KBT-psykologer").

CV - Anna Andreasson

Medverkande forskare: Anna Andreasson	**Dr-examen:** 2010-06-18
Födelsedatum: 19801221	**Akademisk titel:** Docent
Kön: Kvinna	**Arbetsgivare:** Stockholms universitet
Land: Sverige	

Utbildning

Forskarutbildning		
Examen	Organisation	Namn på handledare
Doktorsexamen, 30224. Allmänmedicin, 2010-06-18	Karolinska Institutet, Sverige, NVS (Institutionen för neurobiologi, vårdvetenskap och samhälle)	Mats Lekander

Arbetsliv

Anställningar			
Period	Anställning	Del av forskning i anställningen (%)	Arbetsgivare
mars 2018 - Nuvarande	Forskare, Tillsvidareanställning	100	Stockholms universitet, Sverige, Stressforskningsinstitutet
december 2016 - juni 2018	Forskarassistent, Projektanställning	100	Karolinska Institutet, Sverige, MedS (Institutionen för medicin, Solna)
mars 2016 - november 2016	Forskarassistent, Projektanställning	100	Karolinska Institutet, Sverige, MTC (Institutionen för mikrobiologi, tumör- och cellbiologi)
juli 2014 - februari 2016	Forskarassistent, Projektanställning	100	Karolinska Institutet, Sverige, NVS (Institutionen för neurobiologi, vårdvetenskap och samhälle)
juli 2010 - juni 2014	Postdoktor	100	Karolinska Institutet, Sverige, NVS (Institutionen för neurobiologi, vårdvetenskap och samhälle)
januari 2006 - juni 2010	Doktorand	100	Karolinska Institutet, Sverige, NVS (Institutionen för neurobiologi, vårdvetenskap och samhälle)

Forskarutbyten			
Period	Typ	Organisation	Ämne
januari 2014 - december 2023	Gästforskare	Macquarie University, Australien, Department of Psychology	30302. Folkhälsovetenskap, global hälsa, socialmedicin och epidemiologi
augusti 2017 - december 2017	Projektledare	SBU - Statens beredning för medicinsk och social utvärdering	30599. Övrig annan medicin och hälsovetenskap

Meriter och utmärkelser

Docentur		
År	Ämne	Organisation
2018	305. Annan medicin och hälsovetenskap	Karolinska Institutet, Sverige, MedS (Institutionen för medicin, Solna)

Handledda personer

År	Handledda personer	Lärosäte (handledd person)	Roll
2026	Doktorand, Therese Liljebo	Karolinska Institutet, Sverige, MedS (Institutionen för medicin, Solna)	Huvudhandledare
2018	Doktorand, Karin Lodin	Karolinska Institutet, Sverige, NVS (Institutionen för neurobiologi, vårdvetenskap och samhälle)	Huvudhandledare
2030	Doktorand, Hannah Linnros	Linköpings universitet, Sverige, Institutionen för hälsa, medicin och vård (HMV)	Bihandledare
2024	Doktorand, Bjarki Alexandersson	Karolinska Institutet, Sverige, MedS (Institutionen för medicin, Solna)	Bihandledare
2019	Doktorand, Martin Jonsjö	Karolinska Institutet, Sverige	Bihandledare
2018	Doktorand, Ellionore Järbrink-Sehgal	Karolinska Institutet, Sverige, MedS (Institutionen för medicin, Solna)	Bihandledare

Bidrag erhållna i konkurrens

Period	Finansiär	Projektledare	Din roll	Totalt belopp (kr)
2023 - 2025	Forte, Sverige - Annan forskningsfinansiär	Anna Andreasson	Projektledare	4 971 000
2021 - 2025	VR - Vetenskapsrådet, Sverige - Annan forskningsfinansiär	Anna Andreasson	Projektledare	3 000 000
2021 - 2022	Nanna Svarz stiftelse, Sverige - Annan forskningsfinansiär, Sverige	Anna Andreasson	Projektledare	120 000
2020 - 2020	KI - Karolinska institutet, Sverige - Annan forskningsfinansiär	Anna Andreasson	Projektledare	150 000
2019 - 2022	, Sverige - Övriga privata utförare	Anna Andreasson	Projektledare	2 495 000
2018 - 2020	Sverige - Företag (även statliga och kommunala bolag samt statliga affärsdrivande verk),	Anna Andreasson	Projektledare	3 000 000
2018 - 2020	VR - Vetenskapsrådet, Sverige - Annan forskningsfinansiär	Anna Andreasson	Projektledare	2 400 000

Övriga meriter

Period	Typ av merit
2017 - 2022	Honorary Associate Professor Macquarie University, NSW, Australia

CV - Alexis Cullen

Medverkande forskare: Alexis Cullen	**Dr-examen:** 2014-05-06
Födelsedatum: 19841113	**Akademisk titel:** Doktor
Kön: Kvinna	**Arbetsgivare:** Karolinska Institutet
Land: Sverige	

Utbildning

Forskarutbildning

Examen	Organisation	Avhandlingens titel	Namn på handledare
Doktorsexamen, 30399. Annan hälsovetenskap, 2014-05-06	King's College London, Storbritannien och Nordirland, Institute of Psychiatry, Psychology	Increased stress susceptibility and hypothalamic-pituitary-adrenal (HPA) axis dysfunction: Early markers of psychosis vulnerability?	Kristin R. Laurens Carmine M. Pariante

Utbildning på grund- och avancerad nivå	
År	Examen
2008	30399. Annan hälsovetenskap, Masterexamen, King's College London, Storbritannien och Nordirland
2006	30399. Annan hälsovetenskap, Kandidatexamen, University of Reading, Storbritannien och Nordirland

Arbetsliv

Anställningar				
Period	Anställning	Del av forskning i anställningen (%)	Arbetsgivare	Övrig information
oktober 2022 - Nuvarande	Principal Researcher, Tillsvidareanställning	50	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Currently working 50% FTE, from July moving to 70% FTE
juli 2022 - juni 2023	Senior Research Associate, Projektanställning	50	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	
december 2020 - september 2022 (Nuvarande)	Forskare, Projektanställning	50	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Employed as Senior Researcher on REMAIN study
november 2019 - juni 2022 (Nuvarande)	Forskare, Projektanställning	50	King's College London, Storbritannien och Nordirland, Institute of Psychiatry, Psychology	Research Fellow and Honorary Lecturer in Psychosis Studies. Salary part-funded by personal grant (NARSAD Young Investigator Grant) and part-funded by EC grant held by Head of Department (PSYSCAN project)
november 2015 - oktober 2019	Postdoktor, Meriteringsanställning	100	King's College London, Storbritannien och Nordirland, Institute of Psychiatry, Psychology	Funded by Sir Henry Wellcome Postdoctoral Fellowship from UK Wellcome Trust

Period	Anställning	Del av forskning i anställningen (%)	Arbetsgivare	Övrig information
maj 2014 - oktober 2015	Postdoktor, Projektanställning	100	King's College London, Storbritannien och Nordirland, Institute of Psychiatry, Psychology	Employed as post-doctoral researcher
oktober 2007 - april 2014	Forskarassistent, Projektanställning	20	King's College London, Storbritannien och Nordirland, Institute of Psychiatry, Psychology	Employed on various projects alongside MSc and PhD studies

Forskarutbyten

Period	Typ	Organisation	Ämne
september 2017 - november 2017	Gästforskare	Emory University, USA, Department of Psychology	50101. Psykologi (exklusive tillämpad psykologi)
november 2015 - oktober 2017	Gästforskare	University of Birmingham, Storbritannien och Nordirland, School of Psychology	50101. Psykologi (exklusive tillämpad psykologi)

Meriter och utmärkelser

Handledda personer

År	Handledda personer	Lärosäte (handledd person)	Roll	Antal
	Student	King's College London, Storbritannien och Nordirland, Institute of Psychiatry, Psychology	Huvudhandledare	52
	Student	Karolinska Institutet, Sverige	Huvudhandledare	2
	Student	King's College London, Storbritannien och Nordirland, Institute of Psychiatry, Psychology	Bihandledare	15
2025	Doktorand, Thomas Reilly	King's College London, Storbritannien och Nordirland	Bihandledare	
2021	Doktorand, Natalia Petros	King's College London, Storbritannien och Nordirland, Institute of Psychiatry, Psychology	Bihandledare	

Bidrag erhållna i konkurrens

Period	Finansiär	Projektledare	Din roll	Delbelopp (kr)	Totalt belopp (kr)
2023 - 2025	VR - Vetenskapsrådet, Sverige - Annan forskningsfinansiär	Alexis Cullen	Projektledare	0	2 400 000

Period	Finansiär	Projektledare	Din roll	Delbelopp (kr)	Totalt belopp (kr)
2022 - 2025	Medical Research Council (UK), Ej Sverige - Statliga enheter, Storbritannien och Nordirland	Thomas Reilly	Medverkande	0	3 276 506
2020 - 2022	Brain & Behavior Research Foundation, Ej Sverige - Internationella organisationer, USA	Alexis Cullen	Projektledare	0	600 000
2019 - 2020	National Institute of Health Research Maudsley Biomedical Research Centre, Ej Sverige - Universitet och högskolor, Storbritannien och Nordirland	Alexis Cullen	Projektledare	0	260 000
2015 - 2019	Wellcome Trust, Ej Sverige - Internationella organisationer, Storbritannien och Nordirland	Alexis Cullen	Projektledare	0	3 000 000
2013 - 2014	Waterloo Foundation, Ej Sverige - Internationella organisationer, Storbritannien och Nordirland	Kristin Laurens	Medverkande	0	180 000

Priser och utmärkelser

År	Land	Namn på priset/utmärkelsen	Utfärdare	Beskrivning
2021	USA	Brain & Behavior Research Foundation Research Partners Program	Brain & Behavior Research Foundation	NARSAD Young Investigator Award project chosen for the Research Partners Program which enables BBRF donors to designate their gift to a specific scientist. The Evelyn Toll Family Foundation chose to sponsor my project.
2020	Storbritannien och Nordirland	King's Education Award 2020	King's College London	Contribution to teaching and learning during the academic year 2019/2020 recognised by student nominations for the King's Education Award.

År	Land	Namn på priset/utmärkelsen	Utfärdare	Beskrivning
2017	USA	Young Investigator Award	International Congress on Schizophrenia Research	Young Investigator Award (9600 SEK) to support attendance at 16th International Congress on Schizophrenia Research, San Diego, USA.
2017	Storbritannien och Nordirland	Best Lecturer for Research Methods, Ethics & Statistics	Institute of Psychiatry, Psychology & Neuroscience, King's College London	Selected by students as Best Lecturer on the Research Methods, Ethics & Statistics module.
2016	Storbritannien och Nordirland	Travel Grant	Guarantors of Brain	Travel grant (4000 SEK) obtained to support attendance at the International Society of Psychoneuroendocrinology 46th Annual Conference, Miami, USA.
2014	Storbritannien och Nordirland	New Research Prize	Royal College of Psychiatrists Forensic Faculty	Oral presentation awarded first prize in the New Research Competition at the annual Royal College of Psychiatrists Forensic Faculty conference.
2014	USA	Young Investigator Travel fellowship	International Society of Psychoneuroendocrinology	Young Investigator Award (3500 SEK) to support attendance at International Society of Psychoneuroendocrinology 44th Annual Conference, Montreal, Canada.
2014	Storbritannien och Nordirland	Staff Development Fund	King's Health Partners	Obtained additional funds (4000 SEK) to support attendance at the International Society of Psychoneuroendocrinology 44th Annual Conference, Montreal, Canada.
2013	USA	Young Investigator Travel Award	Schizophrenia International Research Society	Young Investigator award (4000 SEK) to support attendance at the 4th Biennial Schizophrenia International Research Society Conference, Florence, Italy.

År	Land	Namn på priset/utmärkelsen	Utfärdare	Beskrivning
2010	Storbritannien och Nordirland	Travel Grant	Guarantors of Brain	Travel grant (4000 SEK) obtained to support attendance at the 7th International Early Psychosis Association Conference, Amsterdam.

Övriga meriter

Period	Typ av merit	Beskrivning
2022 - 2024	SIRS Awards Committee Member	Schizophrenia International Research Society - Awards Committee Member (2022-2024)
2020 - 2022	Editorial Board Member for Brain, Behavior & Immunity - Health	
2021 - 2022	Scientific Committee Member for IEPA Early Intervention in Mental Health 2022 Conference.	
2020 - 2022	Editorial Board Member for Brain, Behavior & Immunity	
2019 - 2022	Scientific Coordinator for the PSYSCAN International Consortium	
2014 - 2022	Member of the Schizophrenia International Research Society (SIRS)	
2019 - 2022	Executive Board Member of the PSYSCAN Consortium	
2021 - 2022	Mentor for Alex Martin, PhD student, Institute of Psychiatry, Psychology, Neuroscience, King's College London	
2021 - 2022	Mentor for the Schizophrenia International Research Society (SIRS) Early Career Mentor Scheme.	
2018 - 2022	Review Editor for Frontiers in Psychiatry: Schizophrenia	
2016 - 2022	Honorary Lecturer in Psychosis Studies, Institute of Psychiatry, Psychology & Neuroscience, King's College London	

Period	Typ av merit	Beskrivning
2014 - 2022	Session chair	Sex-specific factors for aetiology, cognition, and outcome in women with psychosis. IV European Meeting on Women's Mental Health – Psychosis and Gender, Barcelona, Spain (2023). HPA axis and immune system markers across the early stages of psychosis: Implications for the neural diathesis-stress model. International Society of Psychoneuroendocrinology (ISPNE) 2021 Virtual Conference; The search for biological markers. 2021 Virtual Congress of the Schizophrenia International Research Society (SIRS); Prediction. 6th Biennial Schizophrenia International Research Society Conference (SIRS), Florence, Italy, 2018; Putative causes, moderators, and consequences of stress and HPA axis dysfunction in psychosis. International Society of Psychoneuroendocrinology (ISPNE) 46th Annual Conference, Miami, USA; Youth health inequalities. Health Inequalities Research Network Conference, London, UK.
2009 - 2022	Invited speaker	IEPA Early Intervention in Mental Health Virtual Conference, 2021; Catalan Psychoneuroendocrinology Meeting, 2021; King's College London, 2020; Sichuan University, China, 2018; Early Psychosis Masterclass, London, 2019; South London and Maudsley NHS Trust, London, 2018; Roehampton University, London, 2017; Emory University, Atlanta, 2017; King's College London, 2015; King's College London, 2015; St Bart's Hospital, London, 2014; University of Birmingham, UK, 2013; Tri-State Chapter of the American Academy of Psychiatry and the Law, London, UK, 2009.
2015 - 2020	Member of the MSc Early Intervention in Psychosis Programme Committee	

CV - Erik Hedman

Medverkande forskare: Erik Hedman	**Dr-examen:** 2011-06-10
Födelsedatum: 19780914	**Akademisk titel:** Professor
Kön: Man	**Arbetsgivare:** Karolinska Institutet
Land: Sverige	

Utbildning

Forskarutbildning			
Examen	**Organisation**	**Avhandlingens titel**	**Namn på handledare**
Doktorsexamen, 30215. Psykiatri, 2011-06-10	Karolinska Institutet, Sverige	Internet-based cognitive behaviour therapy for social anxiety disorder: from efficacy to effectiveness	Nils Lindefors

Utbildning på grund- och avancerad nivå	
År	**Examen**
2016	30215. Psykiatri, Specialistkompetens i klinisk psykologi, Psykologförbundet, Sverige
2014	50101. Psykologi (exklusive tillämpad psykologi), Psykoterapeutexamen/motsv, Stockholms universitet, Sverige
2005	50101. Psykologi (exklusive tillämpad psykologi), Psykologexamen/motsv, Uppsala universitet, Sverige

Arbetsliv

Anställningar

Period	Anställning	Del av forskning i anställningen (%)	Arbetsgivare
november 2011 - Nuvarande	Leg. Psykolog och Akademisk samordnare, Tillsvidareanställning	20	Region Stockholm, Sverige, Gustavsbergs akademiska vårdcentral
mars 2020 - november 2024 (Nuvarande)	Professor, Meriteringsanställning	100	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)
oktober 2015 - mars 2018	Forskarassistent, Projektanställning	50	Karolinska Institutet, Sverige, Institutionen för klinisk neurovetenskap

Postdoktorvistelser

Period	Organisation	Ämne
oktober 2011 - november 2015	Karolinska Institutet, Sverige, Institutionen för klinisk neurovetenskap	30215. Psykiatri

Meriter och utmärkelser

Docentur

År	Ämne	Organisation
2015	305. Annan medicin och hälsovetenskap	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)

Handledda personer

År	Handledda personer	Lärosäte (handledd person)	Roll
2027	Doktorand, Victoria Sennerstam	Karolinska Institutet, Sverige	Huvudhandledare
2020	Doktorand, Elin Lindsäter	Karolinska Institutet, Sverige	Huvudhandledare
2019	Doktorand, Fredrik Santoft	Karolinska Institutet, Sverige	Huvudhandledare
2018	Doktorand, Erland Axelsson	Karolinska Institutet, Sverige	Huvudhandledare
2018	Doktorand, Sigrid Salomonsson	Karolinska Institutet, Sverige	Huvudhandledare
2027	Doktorand, Albin Isaksson	Karolinska Institutet, Sverige	Bihandledare
2027	Doktorand, Katja Sjöblom	Karolinska Institutet, Sverige	Bihandledare
2025	Doktorand, Robert Schibbye	Karolinska Institutet, Sverige	Bihandledare
2024	Doktorand, Susanna Östeman	Karolinska Institutet, Sverige	Bihandledare
2023	Doktorand, Karin Hyland	Karolinska Institutet, Sverige	Bihandledare
2023	Doktorand, Karoline Kolaas	Karolinska Institutet, Sverige	Bihandledare
2018	Doktorand, Ditte Hoffman Jensen	Aarhus Universitet, Danmark	Bihandledare
2018	Doktorand, Evelyn Andersson	Karolinska Institutet, Sverige	Bihandledare
2018	Doktorand, Hanna Sahlin	Karolinska Institutet, Sverige	Bihandledare
2018	Doktorand, Johan Bjureberg	Karolinska Institutet, Sverige	Bihandledare
2018	Doktorand, Maria Lalouni	Karolinska Institutet, Sverige	Bihandledare
2017	Doktorand, Marianne Bonnert	Karolinska Institutet, Sverige	Bihandledare
2016	Doktorand, Samir El Alaoui	Karolinska Institutet, Sverige	Bihandledare
2016	Doktorand, Shervin Shahnavaz	Karolinska Institutet, Sverige	Bihandledare

Bidrag erhållna i konkurrens

Period	Finansiär	Projektledare	Din roll	Delbelopp (kr)	Totalt belopp (kr)
2021 - 2024	Forte, Sverige - Annan forskningsfinansiär	Johan Åhlén	Medverkande	0	5 850 000
2020 - 2025	ALF Medicin Region Stockholm, Sverige - Regioner och kommuner	Erik Hedman-Lagerlöf	Projektledare	0	2 450 000
2019 - 2022	Forte, Sverige - Annan forskningsfinansiär	Erik Hedman	Projektledare	0	4 100 000
2017 - 2019	Forte, Sverige - Annan forskningsfinansiär	Sven Andréasson	Medverkande	0	3 905 000
2016 - 2017	Försäkringskassan, Sverige - Övriga statliga medel	Erik Hedman	Projektledare	0	1 300 000
2016 - 2017	ALF-medel, Sverige - Övriga statliga medel	Erik Hedman	Projektledare	0	900 000
2015 - 2017	VR - Vetenskapsrådet, Sverige - Annan forskningsfinansiär	Clara Hellner	Medverkande	0	4 311 000
2013 - 2014	Vinnova, Sverige - Övriga statliga medel	Erik Hedman	Projektledare	0	500 000
2012 - 2015	ALF-medel, Sverige - Övriga statliga medel	Erik Hedman		0	2 000 000

CV - Christian Rück

Medverkande forskare: Christian Rück
Födelsedatum: 19710408
Kön: Man
Land: Sverige
Dr-examen: 2006-06-16
Akademisk titel: Professor
Arbetsgivare: Karolinska Institutet

Utbildning

Forskarutbildning

Examen	Organisation	Namn på handledare
Doktorsexamen, 30215. Psykiatri, 2006-06-16	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Marie Åsberg

Utbildning på grund- och avancerad nivå

År	Examen	Specialistkompetens utfärdad av Socialstyrelsen
2004	302. Klinisk medicin, Läkarexamen/motsv, Socialstyrelsen, Sverige	Specialistkompetens för läkare
1997	30299. Annan klinisk medicin, Läkarexamen/motsv, Karolinska Institutet, Sverige	

Arbetsliv

Anställningar

Period	Anställning	Del av forskning i anställningen (%)	Arbetsgivare
januari 2007 - Nuvarande	Överläkare (kombinationstjänst), Tillsvidareanställning	0	SLSO-Psykiatri Sydväst
februari 2020 - Nuvarande	Professor, Tillsvidareanställning	70	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)
december 2014 - januari 2020 (Nuvarande)	Lektor, Tillsvidareanställning	33	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)
december 2013 - november 2014	Forskare	100	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)
januari 2011 - november 2013	Forskarassistent	100	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)

Postdoktorvistelser

Period	Organisation	Ämne
december 2007 - december 2010	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	30215. Psykiatri

Meriter och utmärkelser

Docentur

År	Ämne	Organisation
2013	30215. Psykiatri	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)

Handledda personer

År	Handledda personer	Lärosäte (handledd person)	Roll
2022	Doktorand, Oskar Flygare	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Huvudhandledare
2018	Doktorand, Evelyn Andersson	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Huvudhandledare
2017	Doktorand, Jesper Enander	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Huvudhandledare
2017	Doktorand, Volen Ivanov	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Huvudhandledare
2014	Doktorand, Erik Andersson	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Huvudhandledare
2024	Doktorand, Klara Lauri	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Bihandledare

År	Handledda personer	Lärosäte (handledd person)	Roll	
2021	Doktorand, Josefin Särnholm	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Bihandledare	
2019	Doktorand, Gustaf Brander	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Bihandledare	
2017	Doktorand, Chris LaLima	Hofstra University, USA	Bihandledare	
2016	Doktorand, Fabian Lenhard	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Bihandledare	
2011	Doktorand, Brjann Ljotsson	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Bihandledare	
2011	Doktorand, Erik Hedman	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Bihandledare	
2023	Postdok, Elin Lindsäter	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Huvudhandledare	
2023	Postdok, John Wallert	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Huvudhandledare	
2019	Postdok, Volen Ivanov	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Huvudhandledare	
2014	Student, Anders Elmquist	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Huvudhandledare	

Bidrag erhållna i konkurrens

Period	Finansiär	Projektledare	Din roll	Totalt belopp (kr)
2023 - 2025	American Foundation for Suicide Prevention, Ej Sverige - Internationella organisationer, USA	Christian Rück	Projektledare	16 000 000
2022 - 2024	VR - Vetenskapsrådet, Sverige - Annan forskningsfinansiär	Christian Rück	Projektledare	2 400 000
2022 - 2024	Forte, Sverige - Annan forskningsfinansiär	Christian Rück	Projektledare	4 950 000
2021 - 2021	VR - Vetenskapsrådet, Sverige - Annan forskningsfinansiär	Christian Rück	Projektledare	1 051 640
2020 - 2022	CIMED, Sverige - Universitet och högskolor	Christian Rück	Projektledare	1 800 000
2019 - 2021	VR - Vetenskapsrådet, Sverige - Annan forskningsfinansiär	Christian Rück	Projektledare	2 400 000
2019 - 2021	Forte, Sverige - Annan forskningsfinansiär	Christian Rück	Projektledare	3 330 000
2015 - 2018	Forte, Sverige - Annan forskningsfinansiär	Eva Serlachius		20 000 000
2013 - 2016	VR - Vetenskapsrådet, Sverige - Annan forskningsfinansiär	Christian Rück		2 640 000
2011 - 2013	VR - Vetenskapsrådet, Sverige - Annan forskningsfinansiär	Christian Rück		2 144 000

Priser och utmärkelser

År	Land	Namn på priset/utmärkelsen	Beskrivning
2004		Stipendium. Pfizer AB	
2003		Svenska Lundbeckstiftelsen, Stiftelse för neurovetenskaplig forskning, stipendium	

Övriga meriter

Period	Typ av merit	Beskrivning
2015 - 2038	Course director for psychiatry in Huddinge for MD program	Course director for psychiatry in Huddinge for MD program, Karolinska Institutet
2008 - 2018	Member of the board of directors (ledningsgrupp) at The Center of Psychiatry Research	Member of the board of directors (ledningsgrupp) at The Center of Psychiatry Research
2015 - 2018	Coordinator of Stockholm Psychiatry Lectures	Curator of the Stockholm Psychiatry Lectures, a lecture series at KI with a large audience and > 500k viewers on Youtube

CV - Douglas Sjöwall

Medverkande forskare: Douglas Sjöwall	**Dr-examen:** 2015-01-23
Födelsedatum: 19811221	**Akademisk titel:** Doktor
Kön: Man	**Arbetsgivare:** Karolinska Institutet
Land: Sverige	

Utbildning

Forskarutbildning

Examen	Organisation	Avhandlingens titel	Namn på handledare
Doktorsexamen, 50102. Tillämpad psykologi, 2015-01-23	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Attention Deficit Hyperactivity Disorder in Children and Adolescents: Neuropsychological Deficits and Functional Outcomes	Lisa Thorell

Utbildning på grund- och avancerad nivå

År	Examen
2010	50101. Psykologi (exklusive tillämpad psykologi), Magisterexamen, Stockholms universitet, Sverige

Arbetsliv

Anställningar

Period	Anställning	Del av forskning i anställningen (%)	Arbetsgivare	Övrig information

Period	Anställning	Del av forskning i anställningen (%)	Arbetsgivare	Övrig information
september 2018 - Nuvarande	Forskare, Tillsvidareanställning	50	Habilitering & Hälsa, Region Stockholm, Sverige, FoUU-enheten	
februari 2023 - december 2023 (Nuvarande)	Adjukt, Projektanställning	20	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	Adjungerad på 30%
januari 2017 - december 2018	Postdoktor, Tillsvidareanställning	100	Karolinska Institutet, Sverige, Neuro (Institutionen för neurovetenskap)	
april 2015 - december 2016 (Nuvarande)	Postdoktor	100	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	
oktober 2010 - mars 2015	Doktorand	100	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	
juni 2010 - oktober 2010	Forskningsassistent	100	Uppsala universitet, Sverige, Inst för psykologi	
augusti 2007 - maj 2010	Forskningsassistent	0	Karolinska Institutet, Sverige, KBH (Institutionen för kvinnors och barns hälsa)	

Postdoktorvistelser

Period	Organisation	Ämne
januari 2019 - juni 2020	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	50102. Tillämpad psykologi
januari 2019 - december 2019	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	50102. Tillämpad psykologi
januari 2017 - december 2018	Karolinska Institutet, Sverige, Neuro (Institutionen för neurovetenskap)	30399. Annan hälsovetenskap
april 2015 - december 2016	Karolinska Institutet, Sverige, CNS (Institutionen för klinisk neurovetenskap)	3. Medicin och hälsovetenskap

Uppehåll i forskningen

Period	Beskrivning
2015-04-01 - 2015-09-02	Föräldraledig
2013-02-03 - 2013-08-01	Föräldraledig

Meriter och utmärkelser

Handledda personer

År	Handledda personer	Lärosäte (handledd person)	Roll	Antal
	Student	Karolinska Institutet, Sverige	Huvudhandledare	11
	Student		Bihandledare	2
2027	Doktorand, Hanna Agius		Bihandledare	

Bidrag erhållna i konkurrens

Period	Finansiär	Projektledare	Din roll	Delbelopp (kr)	Totalt belopp (kr)
2023 - 2023	Promobilia, Sverige - Annan forskningsfinansiär	Douglas Sjöwall	Projektledare	0	200 000
2022 - 2024	Alf medicin, Sverige - Regioner och kommuner	Tatja Hirvikoski	Medverkande	1 005 000	1 005 000
2021 - 2021	ALF-Medicin, Sverige - Regioner och kommuner	Tatja Hirvikoski	Medverkande	0	300 000
2021 - 2021	Forte, Sverige - Annan forskningsfinansiär	Lisa Thorell	Medverkande	0	3 300 000
2020 - 2020	FoU-medel Clinical Neuro science, Sverige - Universitet och högskolor	Douglas Sjöwall	Projektledare	0	65 000
2019 - 2020	Mågård stiftelse, Sverige - Annan forskningsfinansiär	Douglas Sjöwall	Projektledare	0	200 000
2018 - 2020	Sverige - Universitet och högskolor,	Lisa Thorell	Medverkande	0	2 200 000
2017 - 2017	Sverige - Universitet och högskolor,	Douglas Sjöwall	Projektledare	0	14 000
2017 - 2018	Forte, Sverige - Annan forskningsfinansiär	Douglas Sjöwall	Projektledare	0	1 600 000

Priser och utmärkelser

År	Land	Namn på priset/utmärkelsen	Beskrivning
2014		Award from Journal of Child Psychology and Psychiatry (JCPP) for publishing one of the 30 most influential papers in the world (title "Multiple deficits in ADHD..") related to the neuropsychology of ADHD during the last 30 years (http://www.wileyonlinelibrary.com/go/ADHD_NP).	

Övriga meriter

Period	Typ av merit	Beskrivning
2021 - 2023	Kursansvarig	Har initierat, utformat och är ansvarig för kursen "Funktionsnedsättningens psykologi" på psykologprogrammet på Karolinska Intitutet.

Period	Typ av merit	Beskrivning
2016 - 2023	Kursansvarig	Kursansvarig och examinator för uppsatskurs fördjupning i psykologi på psykologprogrammet Termin 6.
2020 - 2020	SLSO:s Docentskola	En förberedande kurs för docentur där fyller i sin ansökan och tar del av föreläsningar under 6 heldagar (5/3, 16/4, 19/5, 9/9, 15/10 och 26/11).
2017 - 2018	Styrelse medlem	Invald i intresseorganisationen Attention som adjungerad styrelsemedlem.
2016 - 2018	Del av halvtidskommitté	Del av halvtidskommitté för Isabell Brikell 2016, Maria Helander 2017 och John Hasslinger, 2018
2017 - 2017	Assistant reviewer	Assistant reviewer in the appointment process for Professor i barn- och ungdomsvetenskap med inriktning mot förskola, Stockholm University.
2013 - 2016	Karolinska Institutets framtidsråd	2013-2014 blev jag utvald att medverka i KIs framtidsråd som direkt underställt rektor har i uppgift att utveckla och se till att KI är en modern och attraktiv arbetsplats.

Publikationer

Publikationer - Lindsäter, Elin

Projektledare: Elin Lindsäter	**Dr-examen:** 2020-03-11
Födelsedatum: 19810303	**Akademisk titel:** Doktor
Kön: Kvinna	**Arbetsgivare:** Stockholms län landsting
Land: Sverige	

Publikationer - Anna Andreasson

Medverkande forskare: Anna Andreasson	**Dr-examen:** 2010-06-18
Födelsedatum: 19801221	**Akademisk titel:** Docent
Kön: Kvinna	**Arbetsgivare:** Stockholms universitet
Land: Sverige	

Publikationer - Alexis Cullen

Medverkande forskare: Alexis Cullen	**Dr-examen:** 2014-05-06
Födelsedatum: 19841113	**Akademisk titel:** Doktor
Kön: Kvinna	**Arbetsgivare:** Karolinska Institutet
Land: Sverige	

Publikationer - Erik Hedman

Medverkande forskare: Erik Hedman	**Dr-examen:** 2011-06-10
Födelsedatum: 19780914	**Akademisk titel:** Professor
Kön: Man	**Arbetsgivare:** Karolinska Institutet
Land: Sverige	

Publikationer - Christian Rück

Medverkande forskare: Christian Rück	**Dr-examen:** 2006-06-16
Födelsedatum: 19710408	**Akademisk titel:** Professor
Kön: Man	**Arbetsgivare:** Karolinska Institutet
Land: Sverige	

Publikationer - Douglas Sjöwall

Medverkande forskare: Douglas Sjöwall	**Dr-examen:** 2015-01-23
Födelsedatum: 19811221	**Akademisk titel:** Doktor
Kön: Man	**Arbetsgivare:** Karolinska Institutet
Land: Sverige	

Registrera

Villkor

Ansökan ska förutom av den sökande även signeras av behörig företrädare för medelsförvaltaren. Företrädaren är vanligtvis prefekten vid den institution där forskningen ska bedrivas men beror på medelsförvaltares organisationsstruktur.

Signering av den *sökande* innebär en bekräftelse av att

- uppgifterna i ansökan är korrekta och följer Vetenskapsrådets instruktioner
- eventuella bisysslor och kommersiella bindningar har redovisats för medelsförvaltaren och att det där inte framkommit något som strider mot god forskningssed
- de tillstånd och godkännanden som krävs finns innan forskningen påbörjas, exempelvis tillstånd från Läkemedelsverket eller godkännande från Etikprövningsmyndigheten respektive djurförsöksetisk nämnd
- sökande kommer att följa samtliga övriga villkor som gäller för bidraget.

Signering av *medelsförvaltaren* innebär en bekräftelse av att

- den beskrivna forskningen eller forskningsstödjande verksamheten kan beredas plats vid medelsförvaltaren under den tid och i den omfattning som anges i ansökan
- den sökande kommer vara anställd vid medelsförvaltaren under den tid som ansökan avser
- medelsförvaltaren godkänner kostnadsberäkningen i ansökan
- medelsförvaltaren kommer att följa samtliga övriga villkor som gäller för bidraget.

Ovanstående punkter ska ha diskuterats mellan parterna innan företrädaren för medelsförvaltaren godkänner och signerar ansökan.