

Department of Psychiatry  
Amsterdam UMC, location VU University Medical Center  
Department of Research and Innovation, GGZ inGeest

# ANNUAL REPORT

# 2021



**Amsterdam UMC**  
Universitair Medische Centra



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# PREFACE

Annual report department of Psychiatry  
Amsterdam UMC/VUmc and GGZinGeest

Dear reader,

Looking back at 2021, it was a year in which we learned how to cope with most of the restrictions of the COVID-19 pandemic. Hopefully, there will not be major recurrences of severe restrictions in the near future, as we have learned that we do best when we at least can combine working from home with real interactions with colleagues and patients.

Overall, our department has emerged very well. We are regaining vigour and most meetings, celebrations and other social events have been restored. As was predicted, the way we work has been permanently changed in that many of us have learned that working digitally certainly has its advantages. It reduces traveling time and can make it easier to combine diverse tasks and roles in life. Hopefully, this will be ingrained in our way of working and turn out to be fruitful in the future.

As you can read, the output of the research group was impressive in 2021. We are very proud of all the hard work that went into the studies underlying these publications and hope they have true impact on mental health and the lives of our patients. It is clear that the group has reached a stage where the overall output of papers, successful graduations of our PhD-students, contributions to professional guidelines and the public debate on mental health are quite stable.

As an example, the last 10 years, 99 Ph.D. students in our department finished their training with a successful defense, more than 2500 peer-reviewed papers were published by members of our group and a total of almost 50 million of external research funding was obtained. During 2020 and 2021 there were some severe financial and organizational changes and it is good to see that the group has demonstrated to be resilient.

We are a clinical department and much of the work we do originates in the experience of working with and in dialogue with our patients. We hope that this annual report bears testimony to that and that you will find it interesting to read or browse through. Please get in touch with us if there is something you would like to discuss. Most of the work we do, we do together with others, both within and outside the Netherlands. We are convinced that the best work is done in collaboration with others. On behalf of our department, we therefore thank all those that have worked with us over the years to help us arrive at the point where we currently are. So, please browse through this annual report and hopefully share with me the interest and pride in all the good work that is under way.

Aartjan TF. Beekman  
*Head of the Department of Psychiatry, Amsterdam UMC,  
location VUmc*

# SUMMARY

The Department of Psychiatry of Amsterdam UMC (location VUmc) and the Research Department of GGZ inGeest together have been long-term and successful collaborators in their goals to better understand, prevent, and treat psychiatric disorders, particularly related to chronic and severe depressive and anxiety disorder. In this report, we are proud to give an overview of our scientific accomplishments in 2021. Combining excellent research activities with innovative clinical trials, we highlight both new and ongoing research projects and publications that illustrate both the width and depth of our scientific research. We highlight PhD theses defended in 2021, societal impact

of our research, and all of our academic workplaces that integrate science with clinical care. Our research group has consistently performed very well, and 2021 is no exception. This becomes visible through the consistent high number of international, peer reviewed scientific papers produced by our research group, our involvement in PhD degree training, and our success in obtaining new research funding for future projects.

## Management Team

Aartjan Beekman, Brenda Penninx,  
Annette Boenink en Merijn Eikelenboom

- A total of 287 papers were published in 2021 in international peer-reviewed journals, of which almost 50% in the top 25% journals within Psychiatry.
- Fifteen Ph.D -degrees were awarded in our department in 2021 after a successful defense of their thesis.
- We currently have 90 ongoing PhD-trajectories, which illustrates the vitality of our research group.
- In 2021, 8,3 million euros of research funding was obtained for 16 new-to-start small to large-scale projects.
- There was abundant media coverage of the expertise and science coming from our department.
- Education and residency were an integrative part of our academic effort.

## Management Team



**Prof. Aartjan T.F. Beekman**

Head of the Department of Psychiatry, Amsterdam UMC, location VUmc



**Prof. Brenda W.J.H. Penninx**

Research Portfolio Department of Psychiatry, Amsterdam UMC, location VUmc



**Dr. Annette Boenink**

Head of consultation liaison Department of Psychiatry, Amsterdam UMC, location VUmc



**Merijn Eikelenboom**

Head of Operations of the Department of Psychiatry, Amsterdam UMC, location VUmc

# SCIENTIFIC RESEARCH

The research group of the department of psychiatry of [Amsterdam UMC, location VUmc](#), and GGZ inGeest intensively collaborate in their conduct of scientific research of psychiatric disorders. The central focus is on the most common psychiatric disorders: (unipolar and bipolar) depressive disorders and anxiety disorders. Key questions are: What are causes and consequences of depressive and anxiety disorders, and what are effective prevention and treatment options? When examining depressive and anxiety disorders, we also focus on old-age psychiatry, and on their interaction with neurological and somatic disorders, e.g. neurological or cardiometabolic diseases. Related clinical aspects such as stress and sleep are important overarching research topics.

We conduct translational research that ranges from examining the role of genetics or brain dysregulations in psychiatric disorders through studies examining the societal impact of psychiatric disorders. We also conduct clinical trials that examine the effects of (innovative) treatments in patients. An overview of all our research projects and researchers can be found on our website: [psychiatryamsterdam.nl](https://psychiatryamsterdam.nl).

## EMBEDDING AND COLLABORATION

Our clinical research is embedded within four academic workplaces at GGZ inGeest: anxiety disorders, depressive disorders, bipolar disorders, and old age psychiatry, and one academic workplace at the Amsterdam UMC location: soma and psyche. In our academic workplaces clinicians and researchers closely collaborate in innovative research projects. This allows easy implementation of study findings in clinical practice. The workplaces anxiety disorders, depressive disorders and old age psychiatry have received the quality mark TOPGGz.

Our research projects are embedded in two research institutes in which Amsterdam UMC, Vrije Universiteit and University of Amsterdam collaborate: [Amsterdam Public Health \(APH\)](#) and [Amsterdam Neuroscience \(AN\)](#). Our epidemiological and clinical research is embedded in Amsterdam Public Health where we collaborate with colleagues from e.g. epidemiology & biostatistics, computer science, biological and clinical psychology, and general practice departments. Our neurobiological and genetic research is embedded in Amsterdam Neuroscience where the focus is on fundamental and translational neuroscience research. Both research institutes have been evaluated as 'excellent' by recent external review committees, and provide interdisciplinary collaboration.

Our psychiatry research group has consistently grown over the last years, both in terms of quality as well as quantity of research output. A historically strong asset to our research group is the existence of large research infrastructures developed in collaboration with other national academic centers and surrounding networks of general practices and mental health institutions. This has led to a series of longitudinal, large-scale observational studies such as [NESDA](#), [LASA](#), [NOCDA](#) and [NESDO](#). These research infrastructures are also useful assets for starting novel intervention studies within a RCT design such as **GRIP** and **RECALL**. Both our intervention and projects are supported through a strong support staff such as data management and fieldwork teams.



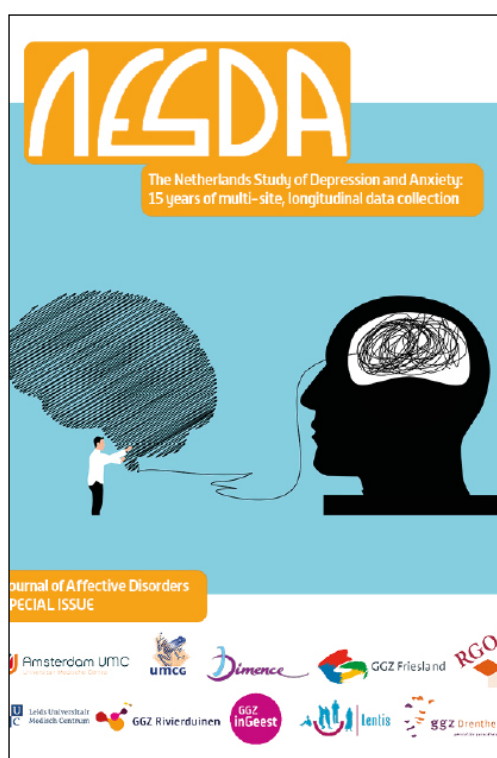
## OUR RESEARCH AND RESEARCH GROUP

All our research results are the result of a strong research group, consisting of many persons with great expertise and enthusiasm, and strong collaboration, both national and international. Due to the growth of our Research Group and the magnitude of our fundamental research, it was decided that our research infrastructure should be part of the infrastructure of the Amsterdam University Medical Center from 2022 onwards. This decision has significant consequences on the ways we organize our fieldwork and finances and meant a reorganization of our supportive staff. Unfortunately, this led to the (forced) farewell of some of our closest colleagues. Although these decisions have had an impact on all colleagues and work, it is therefore admirable to see the resilience of our group, as evidenced, for example, by the fine mutual cooperation and output in 2021. For an up-to-date overview of our staff members, research projects and funding, we refer to [psychiatryamsterdam.nl](http://psychiatryamsterdam.nl).

# HIGHLIGHTS

## 2021

### NESDA Special issue in Journal of Affective Disorders



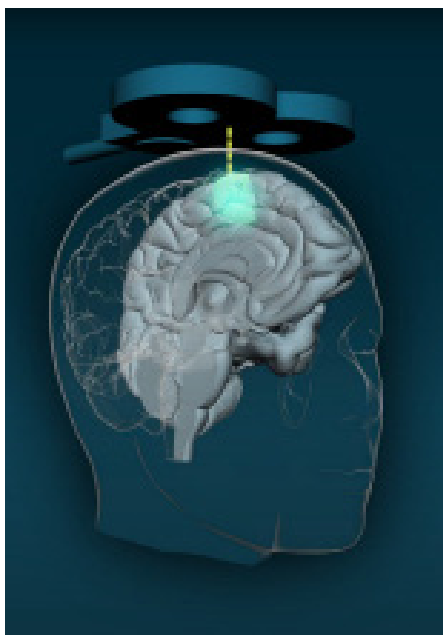
The Netherlands Study of Depression and Anxiety (NESDA, [www.nesda.nl](http://www.nesda.nl)) is a longitudinal, multi-site study that examines and follows over 3500 persons with and without depressive and anxiety disorders for over 13 years. The department of Psychiatry of Amsterdam UMC is coordinator of this project. NESDA started in 2004, and is currently still conducting assessments among its respondents. NESDA is conducted through an intensive and pleasant collaboration with Leiden UMC and UMC Groningen as well as many GGZ institutions.

In 2021 we published a special issue in the Journal of Affective Disorders which is entirely dedicated to the NESDA project. This special issue provides a nice summary of key findings and themes in NESDA. It contains 2 editorials and 12 scientific journals. For instance, it includes papers on the long-term naturalistic course of depressive and anxiety disorders, the comorbidity of depression and anxiety, the role of childhood trauma and the brain imaging finding within NESDA. The special issue also contains an update cohort profile of NESDA describing which data have been collected over time.

NESDA has resulted in over 600 scientific publications in the past 15 years. It remains an important research data infrastructure for current and new PhD-students in the future, and provides a detailed biobank that is used for several biomarker studies.



## Innovation in non-invasive brain stimulation: transcranial magnetic stimulation in OCD and bipolar disorder



Transcranial magnetic stimulation (TMS) is a non-invasive technique to study and modulate brain function. Dependent on the target and stimulation protocol, it is possible to enhance or reduce the activation of brain circuits. Repetitive TMS (rTMS) is increasingly used as treatment modality in mental disorders, such as depression, obsessive-compulsive disorder and addiction. Where rTMS treatment for depression is covered by Dutch health insurance companies since a few years, application of rTMS in other mental disorders occurs still mostly in the context of research or self-paid practice. In both Amsterdam UMC, location VUmc, and in GGZ inGeest, we have built two TMS labs, facilitating both clinical care and innovative research. The TMS lab in Amsterdam UMC (led by prof.dr. Odile van den Heuvel and prof.dr. Ysbrand van der Werf) is focused on innovative research, involving also TMS-EEG experiments and functional MRI-based neuronavigation, in both mental (such as obsessive-compulsive disorder - OCD) and neurological disorders. The TMS lab in GGZ inGeest (led by dr. Eric van Exel and Lianneke Egberink) is focused on mood disorders in adult and old age psychiatry. The TMS teams work both locally and (inter) nationally. In 2021 two national randomized controlled TMS trials were funded, both led by our department: one in OCD ([www.tetro-ocd.nl](http://www.tetro-ocd.nl)) and one in bipolar depression ([www.t-bide.nl](http://www.t-bide.nl))



# **TETRO** TMS for Exposure Therapy-Resistant OCD

We currently finish the experimental proof-of-concept randomized controlled trial TIPICCO (TMS Induced Plasticity Improving Cognitive Control in OCD, see [www.tipicco.nl](http://www.tipicco.nl)), as part of the VIDI project of prof.dr. Odile A. van den Heuvel (with PhD students Sophie Fitzsimmons and Tjardo Postma), comparing 3 rTMS conditions as adjuvant treatment to exposure therapy. The main goal of this work is to understand the neuroplastic changes of the stimulated brain circuits after treatment and precise fMRI-based TMS targeting. On the basis of a meta-analysis that Sophie Fitzsimmons

performed, Zorginstituut Nederland decided to award a 2.8 million Veelbelovende Zorg grant to the TETRO consortium. TETRO is a multi-center randomized trial on the efficacy and cost-effectiveness of real rTMS (versus sham rTMS) as adjuvant treatment to exposure therapy in OCD patients who did not profit enough from exposure therapy (with or without medication). Each session exposure therapy (4 times/week, for 5 to 7 weeks) is combined with 1Hz rTMS to the pre-supplementary motor area (pre-SMA). In total 250 patients will be included.

## Involved members from department of Psychiatry:

Neeltje M. Batelaan, Patricia van Oppen, Chris Vriend, Judith Bosmans, Merijn Eikelenboom, Bianca Lever- van Milligen, Sanne Riemsma and Adriaan Hoogendoorn

PI: Odile A. van den Heuvel,  
co-PI: Ysbrand D. van der Werf,  
PhD: Tjardo S. Postma

**Consortium:** Amsterdam: Amsterdam UMC & GGZ inGeest, Nijmegen: Radboudumc & ProPersona, Maastricht: Maastricht UMC+ & Mondriaan, Groningen / Eindhoven: Neurocare, ADF Stichting



**Funding:** Zorginstituut Nederland, Veelbelovende Zorg (VeZo) grant (2.8 million€)

**Study period:** September 2021 – August 2027. Recruitment started May 2022.

**Trial registration:** <https://clinicaltrials.gov/ct2/show/NCT05331937>

**Website:** [www.tetro-ocd.nl](http://www.tetro-ocd.nl), and watch the movies on this website to get an impression of what it means to participate in the trial (<https://www.tetro-ocd.nl/patienten.html>)

# TMS in bipolar depression

Novel therapies are necessary for depressed bipolar patients since more than 35% of these patients are medication resistant. As a consequence, there is a high burden of illness for depressed bipolar patients leading to increased suicide rates, inability to maintain proper work role function, and reduced quality of life. A possible novel therapy is repetitive transcranial magnetic stimulation (rTMS), which is effective in patients with unipolar depression. However, it remains unknown whether it is also effective in those with bipolar depression.

In the Transcranial magnetic stimulation in Bipolar Depression study (T-BIDE), we want to determine if rTMS is effective in patients with bipolar depression who did not respond to two or more adequately dosed medication trials. For this study 166 patients will be treated: 55 patients will be allocated to sham rTMS and 111 to active rTMS. The primary aim of this study is to determine the clinical efficacy and cost effectiveness of rTMS in patients with treatment resistant bipolar depression. Patients will be treated for a period of 5 weeks, and will receive 25 sessions of rTMS during this period.



**Consortium:** Amsterdam: GGZ inGeest, Nijmegen: Radboudumc & ProPersona, Utrecht: Altrecht, Den Haag / Rotterdam: PsyQ, Groningen: UMCG, PlusMinus

**Involved members from department of Psychiatry:** Merijn Eikelenboom, Bianca Lever-van Milligen, Tim Zandbelt, Anna Paauw, Sanne Riemsma and Adriaan Hoogendoorn

PI: Eric van Exel, co-PI's: Philip van Eijndhoven, Odile van den Heuvel, Marc Lochman van Bennekom, PhD student: Eva Oostra

**Funding:** ZonMw, Doelmatigheidsonderzoek (800 k€)

**Study period:** September 2021 – September 2025. Recruitment started May 2022.

**Trial registration:** <https://www.isrctn.com/ISRCTN1601816>

**Website:** [www.t-bide.nl](http://www.t-bide.nl)

## Stress system dynamics and new targeted treatment strategies in patients with childhood trauma and depression

Around 25% to 50% of depressed patients have experienced moderate to severe forms of childhood trauma (CT) before the age of 18, ranging from emotional neglect to physical or sexual abuse. From a clinical point of view, depression in patients who have experienced CT ("CT-related depression") is critically different from patients with depression without CT. CT-related depression emerges earlier in life with more severe and recurrent symptoms, but also has a more chronic and severe course.

The new and ongoing research project RESET (REStoring mood after Early life Trauma) aims to alleviate depression in patients with depression and childhood trauma. This innovative project led by prof. Christiaan Vinkers consists of two RCT's, which aim to 'reset' the stress system of patients with depression and childhood trauma:

The **RESET-medication study** is a 6-week double-blind placebo-controlled randomized trial testing the efficacy of a 1-week treatment of the glucocorticoid receptor antagonist mifepristone (+ treatment as usual; TAU) in 158 patients with CT-related depression. By blocking the glucocorticoid receptor (GR) using the drug mifepristone, we aim to reverse the biological sequelae of excessive stress due to CT and improve depression outcomes. The RESET-medication RCT is sponsored by the Dutch Brain Foundation (Hersenstichting).



The RESET-psychotherapy study is a 12-week multicenter single-blind RCT testing the efficacy of added trauma-focused treatment (TFT) in 158 adults with CT-related depression compared to TAU only. The RESET-psychotherapy RCT is made possible by Stichting tot Steun.

Both RCTs also aim to understand the underlying mechanisms of these new treatment strategies by assessing stress-related biomarkers including cortisol, inflammation, and epigenetic regulation.

A large group of patients could benefit from the innovative hypothesis-driven strategies. If successful, rapid implementation of this treatment in Dutch depression guidelines is possible. On the longer term, the benefits of treatments aimed at CT could also extend to other psychiatric disorders that are known to have an increased risk as a consequence of CT, including anxiety disorders, post-traumatic stress disorder (PTSD), substance abuse, bipolar disorder, and diagnosis-independent phenomena as suicidality, insomnia, and severe self-harm.

### fMRI stress system dynamics

#### **RESET-medication fMRI**

Additionally, a fMRI sub-study within RESET-medication will start in the summer of 2022. This sub-study will clarify the neurobiological effects of mifepristone treatment on stress reactivity in CT-related depression. Mifepristone effects will be assessed acutely and later during recovery following a psychosocial stress test, the Trier Social Stress Test (TSST).



Stress induces a cascade of temporally distinct events in the brain, including dynamic changes of the major brain-wide stress networks. During the acute phase (< 1h), stress increases vigilance and threat detection, which is accompanied by increased activity of the salience network (integrating cognitive processes associated with salient stimuli), and decreased activity of the default mode network (internally guiding cognition and critical for memory processing) and executive control network (higher-order cognitive functions, e.g. memory and attention). The recovery phase of the stress response (>1h) is an active process where higher cortical functions are restored and salience network activity decreases, whereas default mode network and executive control network activity increase.

The ability to dynamically shift between these stress networks and terminate the stress response is key to stress resilience.

Preclinical evidence suggests that the effects of mifepristone on the neurobiological consequences of early life stress are particularly evident in a high-stress environment. As such, mifepristone may improve CT-related depression by reversing these long-term effects on acute stress reactivity.

## REACT

In the new REACT study, starting late 2022, a similar fMRI- stress paradigm is used to compare stress system dynamics between 3 groups; MDD patients with CT (N=40) and without CT (N=40) and healthy controls (N=40). The study is designed as a randomized cross-over study with two experimental conditions (stress condition and placebo-stress condition, separated by at least 2 weeks). We hypothesize that mood disorder patients with CT have a reduced proficiency for dynamic adaptation of brain function, which is necessary after stress. We expect that this loss of normal stress-related functional network dynamics also relates to altered physiological and psychological responses to stress in daily life.

The primary outcome measure of the two (f) MRI studies is the difference in resting-state functional connectivity of the salience, default mode and executive control network between the acute phase (0-40 minutes after stressor offset) and the delayed phase of stress recovery (60-100 minutes after stressor offset) following the TSST. Stress system dynamics will also be assessed using task-based fMRI, endocrine responses (salivary cortisol and alpha-amylase), psychophysiology (e.g. heart rate) and behavior (in fMRI tasks). The fMRI studies in stress system dynamics are made possible by the VIDI subsidy.

For more information see our website: [jeugdtrauma-Depressie.nl](https://jeugdtrauma-Depressie.nl)

## PhD students from the Vinkers lab:



Anouk Gathier  
RESET-psy



Felix Linsen  
RESET-med



Caroline Broeder  
RESET-med fMRI



Jasmin Pasteuning  
REACT



Milou Sep  
REACT & RESET

# ACADEMIC WORKPLACES

## Academic Workplace Depression

The Academic Workplace on Depression (ADW) is a collaboration between the Department of Psychiatry at Amsterdam UMC, location VUmc and the Depression Outpatient Clinic at GGZ inGeest. In this growing and flourishing workplace, clinical care and scientific research work closely together. The aim of the AWD is to use clinical practice as a source of inspiration for new research questions on the one hand and to bring the advancing insights of the research world into clinical practice on the other. This results in a depression department with the TOPGGz quality mark where the treatment and research of long-term, therapy-resistant and complex depression is central.

Within the AWD there are currently quite a few clinical research projects running with different themes. There are several studies on the specific treatment of depression and comorbid problems: 1) sleep problems (Einstein), 2) suicidality (GRIP) and 3) childhood trauma (RESET). There is also a study that evaluates an eHealth module with psychoeducation on antidepressant use (PAM). Another topic is about stopping antidepressants in which patients want to tailor their tapering off antidepressants. This is of great importance to many patients. Two national studies on this topic are being conducted by Amsterdam UMC: the OPERA study and the TEMPO study. For these ongoing and

future studies, maintaining a good and future-proof data infrastructure is an important focus of the AWD as the recruitment of patients with depression is essential in conducting clinical scientific research.

Another goal of the AWD is to actively bring clinicians and researchers together in an interactive AWD meeting every six weeks. Due to the corona pandemic this meeting was transferred to an online meeting, which actually had the advantage of also reaching our colleagues located at different sites. In the past year we had both internal and external speakers covering the topics of, among others, depression & deep brain stimulation, esketamine, rTMS, psilocybin, comorbid autism and hormonal dysregulations.

The long-term goal of the AWD is to better identify patients with depression, predict what patients need in terms of treatment, and improve prognosis so that people with depression are better able to reduce suffering in the future. To this end, the AWD has set up an infrastructure in which research coordinators from all GGZ inGeest outpatient clinics connect clinical practice with scientific research. In addition, there are active links with other Academic Workplaces such as Anxiety Disorders, Bipolar Disorders and Old Age Psychiatry.

## Academic Workplace Anxiety

The Academic Workplace on Anxiety (AWA) is a partnership between the Department of Psychiatry of Amsterdam UMC, location VUMC, and the outpatient anxiety disorder clinics of GGZ inGeest. The TOPGGz qualification of our outpatient clinic reflects this fruitful partnership. Our workplace conducts clinically relevant research with the aim to investigate and improve the course of anxiety disorders.

The AWA leads and participates in various clinical studies. In 2021, the last patients were included for the Intensieve Exposure Programma (IEP) study, the TIPICCO study (exposure with rTMS for OCD) and the ARIBA (Inference based approach for treatment resistant OCD) study. Results will become available soon. Other continuing studies were: iSLEEP (a sleep intervention for patients with anxiety disorders) and SYST (a pilot study about group-based schema therapy for patients with therapy-resistant anxiety-, obsessive compulsive, depressive or somatoform disorders).

We are proud of two members of the AWA who obtained their PhD in 2021: Esther Krijnen-de Bruin and Wicher Bokma. Esther's thesis 'Relapse prevention in patients with anxiety or depressive disorders' focussed on different aspects of relapse and relapse prevention including a pre-post study about a blended intervention to prevent relapse, and one of her main conclusions is that relapse prevention warrants more attention in clinical practice. Wicher investigated factors that negatively impact the course of anxiety, and developed statistical models for predicting a poor clinical course in 'worrying about the future: towards evidence-based prognosis in anxiety disorders'.

A number of papers were published last year, with topics like antidepressant use in adults and in elderly, discontinuation of antidepressants, help-seeking behavior of adolescents and adults, relapse in the general population, and relapse prevention in patients with anxiety or depression. One of our top publications was a meta-analysis which showed that virtual reality is as effective as in vivo exposure and significantly better than waitlist in adults with (severe) anxiety disorders, OCD & PTSD. The article lists in the top 25% of most cited articles on social media worldwide.



Every year, the AWA works on a publication as a team. This year, we have been working on an ongoing IPDMA on the impact of symptom severity on the treatment effect of cognitive behavioral therapy in social anxiety disorder; data from 1246 patients from 12 studies were obtained and analyzed.

The AWA continuously advocates dissemination of our scientific knowledge to clinical practice and to make a social impact. Examples are: Anna Muntingh was assigned as 'boegbeeld' for the outpatient clinics of GGZ inGeest and Willemijn Scholten starred in a podcast on OCD (De Podcast Psycholoog) and in a Psyflix Masterclass on exposure therapy in OCD patients.

## Academic Workplace Bipolar Disorder

The Academic Outpatient Department for Bipolar Disorders is based in Amsterdam (De Nieuwe Valerius) and Hoofddorp (Spaarnepoort) and concurrently treats about 600 patients for shorter or longer periods. We are specialized in diagnosing bipolar spectrum disorders and complex pharmacotherapy combined with psychological interventions. Difficult to diagnose or treatment-resistant patients are referred from all over the Netherlands for a second opinion. We participate in the (local) implementation of the national Care Standard for Bipolar Disorder in a project of care pathways, in which the nature and amount of multidisciplinary care are specified per phase of treatment (e.g., acute, continuation, maintenance) and treatment setting, to gain a better insight in effectiveness and efficiency of delivered care. This is of importance given the complexity and heterogeneity of bipolar spectrum disorder. Currently, we especially focus on the different stages of Bipolar Disorders; Lithium nephropathy;

pregnancy and bipolar disorders, and the comorbidity between Bipolar disorders and personality disorders.

There is a close collaboration with our academic department on Old Age Psychiatry to cover bipolar disorders across the lifespan, and Altrecht Outpatient Center for Bipolar Disorder in Utrecht. Ph.D. students (14) covering various aspects of bipolar disorder care are affiliated with Amsterdam UMC/, location VUMC /GGZ inGeest (3) as well as in other mental health organizations and Academic partners (such as Altrecht, Dimence, Radboud University (11). In 2021 the Academic Workplace Bipolar disorders also prepared the application for a TOP-GGZ position in 2022.

Furthermore, Prof dr Ralph Kupka received the Mogens Schou Award for Education and Teaching in 2021 from the International Society for Bipolar Disorder (ISBD).





## Academic Workplace Old Age Psychiatry

As in 2020, the corona pandemic also caused delays in research projects in 2021, especially when the intervention could not be continued online during the lockdowns. Many patients of our vulnerable target group decided to wait to participate in research until the risk of infection had decreased further.

### Cohort studies

Nevertheless, a new patient cohort started in 2021: **The Transdiagnostic Older Psychiatry cohort (TOP cohort)**. This includes all new patients at the elderly outpatient clinic of De Nieuwe Valerius. In the case of patients, a number of diagnostic data and measuring instruments that are collected and used for regular patient care are recorded in a systematic manner.

In the patients collected in the already existing **DOBi cohort (Dutch Older Bipolar patients)**, the 3-year follow-up measurements will be completed in 2021; everyone is also invited to donate samples to the biobank. Currently, 140 patients have signed informed consent and were included in **The Amsterdam Ageing Cohort (AAC)** a naturalistic cohort study which aims to improve diagnostics in older patients and gain insight into the process of ageing in patients with somatic and/or psychiatric disorders.

### Current treatment (pilot) studies

**The pilot Social Rhythm and Interpersonal Therapy (SPIRIT)** as group therapy for uni- and bipolar patients of all ages has been successfully completed. This is a collaboration with WP Depression and bipolar. This group offer is continued at the outpatient clinic for the elderly in Amsterdam and also runs at the outpatient clinic for the elderly in Haarlem.



- **De BrainFit** study of the effect of an online cognition training for uni- and bipolar patients above 50 years of age is successfully completed.
- **De BLOK** (Beter sLapen Op maat bij Klachten) pilot has suffered some delay because this is a group intervention that could not be digitized, but has resumed in 2021. This group treatment is aimed at improving sleep in elderly people with depression.
- The inclusion for the **Blzonder study**, which examines people with bipolar disorder who have not been taking medication for more than 5 years, continued in 2021.
- **De RECALL** studie (Rivastigmine for ECT-induced Cognitive Adverse effects in Late Life depression), a RCT aimed at reducing cognitive side effects in ECT was continued, with ZonMW willing to fund this study for another year due to Covid.

### Qualitative study

In 2021, the study **“Does success lead to success?”**. Mixed-methods research into the constancy of resilience after depression during the corona crisis.” 19 participants in the Dutch Study on Depression in the Elderly (NESDO) who previously recovered permanently from depression gave a qualitative interview about their resilience during the corona crisis. Finally, to our delight, our distinguished colleague Emeritus Professor Dr. Max Stek - who retired in 2020- was awarded the Honorary Membership of the Dutch Society of Psychiatry in 2021.

# HOSPITAL PSYCHIATRY

For the Hospital Psychiatry staff (25 permanent, 10 temporary staff and 11 fte MPU team) 2021 was still influenced by the Covid pandemic. Nevertheless, we were able to start, continue and / or finish a number of activities and projects. Moreover, as clinical staff of the Hospital Psychiatry, in 2021 we were working in the dynamic context of a fusion of two University Medical Centers into one Amsterdam UMC in a bi-location model. Many movements of patient care are prepared, and some moves have already taken place in 2021. The consequences for Hospital Psychiatry had to be considered and anticipated.

## Consultation Liaison Psychiatric Service (CLPS)

### Special activities

**Ype van der Brug (Nurse Specialist Consultation Liaison Psychiatry). Lecture (during Anna Reynvaan expert meeting, 11 May 2021):** The importance of diagnosing and managing delirium (key-words: delirious patients, diagnosis, intervention, nursing, leadership and patient advocacy)

### Participation in the The 113-suicideprevention Hospital network (October 2021):

The department of Hospital Psychiatry of Amsterdam UMC / VUmc is an active member of the 113 network of hospitals, committed to enhance knowledge and skills on suicide prevention in general hospitals. This work is mainly done in cooperation with the Emergency Ward and the Intensive Care Unit, and was thus impeded by the covid crisis. However, we were able to carry out an online survey and perform clinical lessons for the nursing staff

of the Emergency ward. The project is to be continued in 2022.

### Willemijn Lineman, Klaas Nauta en Ype van der Brug: Participating Centre in the SPICE study (113). Kick-off meeting in VUmc "SPICE"-study, Suicide Prevention In Clinical Emergencies (November 2021):

The SPICE-study aims to gain insight into the effectiveness of the 113- suicide prevention hospital network charges in confidence, knowledge and uptake of prevention guidelines recommendations in Dutch hospitals.

Furthermore, in 2021, staff members of the CLPS contributed to the committee - together with colleagues from AMC and Emergency unit professionals - on the future of Psychiatric Care at the Emergency Unit after lateralisation.

## Medical Psychiatric Unit (MPU)

The MPU VUmc (8 beds) was accredited by the CZO (College Zorg Opleidingen) as official training ward for "Ziekenhuispsychiatrie verpleegkundige". This training 'Hospital Psychiatry Nurse' is training nurses for offering care to patients with a complex somatic-psychiatric comorbidity.



*Hansje Heller from the POP poli received her PhD in 2021*

## Soma & Psyche

Our centrum for Soma & Psyche, where most of our ambulant care is concentrated, flourished in 2021. Our staff adapted very well to delivering remote health care as an addition to traditional face-to-face care, using digital possibilities. The number of requests for the specialized care delivered by our Centre greatly exceeded our possibilities – especially for the patient group of somatoform disorders.

Our staff of the POP poli (the multidisciplinary team from Psychiatry, Obstetrics and Pediatrics, taking care of pregnant women with psychiatric problems) was the first to make the move and started working at the Meibergdreef in 2021.

Sonja Rutten, Iris Keuning and participate in the Dutch working group on “Hardnekkige aanhoudende lichamelijke Klachten (ALK). Sonja Rutten (PI) started a survey for general practitioners on this topic.

[https://nalk.info/portfolio\\_page/werkgroep-hardnekkige-alk/](https://nalk.info/portfolio_page/werkgroep-hardnekkige-alk/)

## Projects

In line with the policy that we established for our Hospital Psychiatry patient care department, we initiated and carried out projects that integrate patient care, educational and evaluation / research goals from the perspective of personalized bio-psycho-social care.

### Project: COBRA project for interprofessional learning

A senior clinical staff psychiatrist, Klaas Nauta, started the “COBRA” project: COmplex care, Better by Reflection and Coordination (Afstemming). The FMS (Federation of Medical Specialists) funded this project as a way to improve Interprofessional Learning. The patient case discussions that are organized, following a structured bio-psycho-social approach, are valued by participants from a different professions as very instructive. Data are collected for a structured evaluation.

### Project: Sitters

On the Medical Psychiatric Unit the “Sitters” project was continued in 2021 (with a grant from the VU Association). The aim of this project is to reduce the number of Freedom Restricting Interventions through the temporary deployment of staff trained for this purpose. A training was developed and a protocol to evaluate the pilot project was written and approved.

### Project: Shared Decision Making project

Within the Hospital Psychiatry, especially at the Centre for Soma & Psyche, we continued the Shared Decision Making project (project group Iris Keuning, Camille ten Velden and Annette Boenink). The project was funded by a Synquest grant from the Netherlands Health Care Institute. In 2021 we developed a training targeted to our team and our patient population, and secured that all new team members will be trained in this way of working. Together with the other participating institutes, we performed a qualitative and a quantitative evaluation by interviewing patient and organizing focus groups and using questionnaires. The results of these evaluations were presented at conferences (EAPM, NALK). Data collection was finished in December 2021, publications will be prepared in 2022.

## Team Neuropsychiatry

Research projects focusing on neuropsychiatric disturbances in Parkinson's disease (embedded in team Neuropsychiatry led by Odile van den Heuvel) run in collaboration with the departments of Rehabilitation Medicine, Neurology, and Anatomy & Neuroscience, focusing on:

1) the mental and neural effects of cognitive training (PI's: Vriend/van den Heuvel, see [www.cogtips.nl](http://www.cogtips.nl), PhD student/postdoc Tim van Balkom)

2) wearing-off related distress, a multi-center randomized controlled trial on the effects of body-awareness training (PI's= van Wegen/van den Heuvel, see [www.parkinson-beware.nl](http://www.parkinson-beware.nl), PhD student Ires Ghielen)

3) the mental and neuroplasticity effects of three physical training conditions in Parkinson's disease and multiple sclerosis (PI= van Wegen, see <https://www.hersenfit.amsterdam>, PhD student Elvira Amaral Gomes, embedded in Dept Rehabilitation Medicine and team Neuropsychiatry)

4) blood and 7-Tesla MRI biomarkers of REM sleep behavioral disorder in Parkinson and Lewy Body dementia (PI's= van der Werf/Lemstra, PhD student Max Laansma, embedded in Dept Anatomy & Neuroscience and team Neuropsychiatry)

5) the multi-center longitudinal cohort study 'Profiling Parkinson's disease' (ProPark; (PI's= van de Berg/Hilten, see [www.proparkinson.nl](http://www.proparkinson.nl)), including the subproject on MRI-based biomarkers (PI imaging sub project=Vriend).



*Tim van Balkom, of the Neuropsychiatry team defended his thesis in 2021*



# EDUCATION AND TRAINING

## Education

The Department of Psychiatry and GGZ inGeest together make a major contribution to education, particularly to the bachelor and master phases of the medical program at Amsterdam UMC location VUmc. In the bachelor phase the elective course Hot topics in neurology & psychiatry (HTNP) takes place, and the course Psychological functioning and cognition. Students can also observe research in the workplace, are supervised by tutors and write a bachelor's thesis. In the master's phase, location Vrije Universiteit and GGZ inGeest offer about 200 students the opportunity to follow their internship in psychiatry. In addition, enthusiastic future doctors can do their semidoctoral or scientific internship at location VUmc or GGZ inGeest.

### Back to normal?

The absence of interns on the wards in spring 2020, online and hybrid education, alternative internships to minimize study delay, assessing patients online... the covid pandemic required extraordinary flexibility of students and staff. Now the pandemic is more or less under control, the educational program is back to normal but now equipped with lessons learned on flexible programs, alternative modes of learning, and making optimal use of the internet.

## Innovation

Medical training is attaching increasing importance to extramural work. As psychiatric care is already predominantly organized extramurally, our internships are at the front of this innovation. About half of our internships are situated outside the hospital, and those who do their internship inside the hospital also get to know how patients are being treated in their own environment.

## Evaluations

The medical program has introduced a new way of assessing students. Grades will disappear and thorough descriptive feedback will guide the development of students. The internship in psychiatry is well prepared to start evaluating students this way from July 2022 onwards. Students in medical school also evaluate the education they receive. Both the bachelor and master program of the psychiatry education have been highly valued for many years. We aim to continue our positive contribution to the development of students into doctors who are receptive to the needs of patients with psychiatric vulnerabilities.

## Training

GGZ inGeest and Amsterdam UMC location VUmc also closely work together in training doctors to become psychiatrists: organizing care outside office hours together, sharing knowledge and best practices in training programs and safeguarding the academic content. Both training programs benefit from the close collaboration. In GGZ inGeest 9 trainees start each year, selected out of many applicants. Most of them receive part of their training at location VUmc. Together, GGZ inGeest and Amsterdam UMC provide training to over 50 doctors annually. Both training programs are highly valued, as has been concluded by visiting committees in 2020 (GGZ inGeest) and 2021 (Amsterdam UMC location VUmc). We are currently implementing the new national trainings program, which will facilitate us to train the next generation of psychiatrists to be well equipped for their job.

In 2021, we strengthened our liaison with Psychiatry in Bonaire, where now up to three residents in psychiatry are active, under the responsibility of our psychiatry training. Moreover, we realized a combined internship/residency in collaboration with Clinical Pharmacology. Also, in the Antonie van Leeuwenhoek Hospital, an internship was realized. Finally, our clinical staff has prepared itself for working with the “EPA’s”, Entrustabel Professional Activities.

# SCIENTIFIC OUTPUT AND ACQUISITION

In 2021, 287 international papers have been published by our department, of which almost 50% in the top 25% of journals in Psychiatry. We had more than 100 PhD-students working on their theses in 2020, of which 15 PhD-candidates have successfully defended their thesis, and our researchers additionally supervised the dissertation of 4 PhD-candidates from other departments and universities.

In collaboration with (international) partners, 8,3 million euros of research funding have been obtained. In the upcoming years, the combination of research funding, our dedicated staff and PhD students will facilitate the continuation of the success of the department of Psychiatry.

The quantity of our scientific output is illustrated on the next pages in several tables and figures. Table 1 shows the number of publications published in 2020.

Please see:

[psychiatryamsterdam.nl/results/publications](https://psychiatryamsterdam.nl/results/publications)

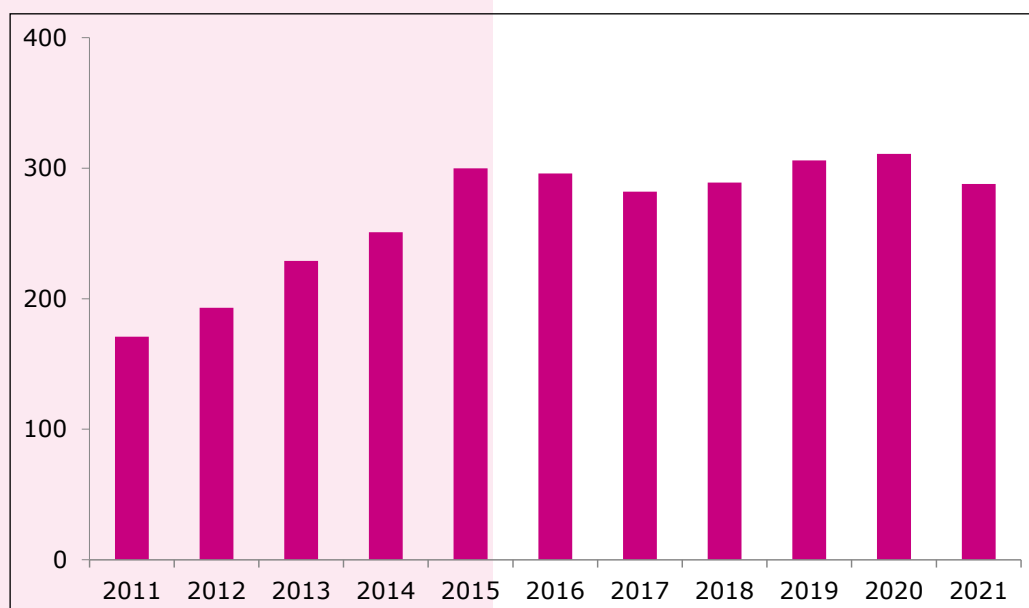
Figure 1 displays the number of publications from 2012-2022. In Table 2, research funding obtained in 2021 is displayed. Finally, in table 3 a specification of funding over projects is given.





**Table 1. Number of publications in 2021 (International papers refereed (peer-reviewed))**

International Publications Refereed (Peer reviewed)	287
-----------------------------------------------------	-----

**Figure 1. Number of international, refereed publications (2011-2021)****Table 2. Number of PhD trajectories and dissertations 2014-2021**

	2014	2015	2016	2017	2018	2019	2020	2021
PhD trajectories (active)	81	90	91	95	94	100	102	90
VUMC Psychiatry	2	11	12	15	9	12	5	15
VUMC (other) / VU*	4	6	3	8	7	5	6	2
External*	2	6	8	6	4	1	1	2

**Table 3. Acquisition in 2021 Funding Amount in €**

EU Programs	436.869
Zonmw/Nwo	5.973.534
Hersenstichting Nederland	1.171.488
Stichting to Steun VCVCW	282.650
Amsterdam UMC (APH, neuroscience)	164.200
Smaller foundations	260.000
<b>Total:</b>	<b>8.288.741</b>

**Table 4: Funding 2021 Department of Psychiatry, location VUmc and GGZ inGeest**

Name	Project	Funding	Department	Amount €
Aghajani M, Nawijn L	Enigma related project: application of machine learning to neuroimaging data	Amsterdam Neuroscience alliantieproject	VUmc	60.000
Droes RM	Evaluatie van FindMyApps Online	APH Research Institute	VUmc	22.000
Exel E	Efficacy of repetitive Transcranial Magnetic Stimulation in treatment-resistant bipolar depression	ZonMw	VUmc	799.600
Exel E	Sodium Oxybate as a potential new treatment for catatonia in patients with depression, bipolar disorder or a psychotic disorder	Hersenstichting Nederland, (Dutch Brain Foundation)	VUmc	571.488
Heering J	Leren van Herstel	Stichting tot Steun VCVGZ	GGZ Ingeest	109.028
Heuvel OA van den, Werf YD van der	Transcranial magnetic stimulation (TMS) for exposure therapy-resistant obsessive-compulsive disorder (OCD): TETRO, a multi-centre randomized controlled trial	ZonMw/Zorg Instituut Nederland	VUmc	2.840.370
Heuvel OA van den, Vriend C	How disease and medication shape the brain and how the brain predicts individual treatment response; learning from global collaboration	International OCD Foundation	VUmc	250.000
Kok A	Veerkracht na depressie en tijdens de coronacrisis	Stichting tot Steun VCVGZ	VUmc	173.622
Lamers F, Milaneshi Y, Penninx B, Vinkers C	Precisie psychiatrie: anti-inflammatoire medicatie bij immuno-metabole depressie	Hersenstichting Nederland, (Dutch Brain Foundation)	VUmc	600.000
Markt vd A, Korten N.	Personalizing health care in psychiatry by exploring biomarkers for staging models	NWO	GGZ inGeest	49.349
Nawijn L	Effects of stress on brain ageing	Amsterdam Neuroscience alliantieproject	VUmc	62.200
Penninx B	PRISM II	EU	VUmc	436.869
Penninx B	CCS Grant voor voorbereiden van een project met de titel: 'IMMUNO-DEP	Amsterdam UMC EU Support Group	VUmc	20.000
Vinkers CH	Using stress dynamics to understand and improve childhood trauma-related depression	ZonMw - Vidi	VUmc	800.000
Vinkers CH, Ruhe E	Tapering strategies for paroxetine and venlafaxine ER as proxy for SSRI/SNRI AntiDepressant discontinuation: The TAPER-AD trial.	ZonMw	VUmc	1.484.215
GJ de Ridder, CH Vinkers, LH Franke	Digitale filosofie; Big data om nieuwe inzichten te krijgen	KNAW-VU	VUmc	10.000
			<b>Total</b>	<b>8.288.741</b>

# HIGHLIGHTED PUBLICATIONS 2021

The American Journal of  
**Psychiatry** [Current Issue](#) | [Archive](#) | [About](#) | [Residents' Journal](#) | [AJP in Advance](#) | [Podcast](#) | [CME](#) | [Author Resources](#) | [Author and](#)



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## Incident Major Depressive Disorder Predicted by Three Measures of Insulin Resistance: A Dutch Cohort Study

Kathleen T. Watson , Ph.D., Julia F. Simard, Sc.D., Victor W. Henderson, M.S., M.D., Loxi Nutkiewicz, B.A., Fomko Lamers, Ph.D., Caria Nasca, Ph.D., Natalie Rasgon , M.D., Ph.D., Brenda W.J.H. Penninx, M.D., Ph.D.

THE LANCET

CORRESPONDENCE | VOLUME 398, ISSUE 10295, P120, JULY 10, 2021

## Benzodiazepines for the long-term treatment of anxiety disorders? – Authors' reply

Brenda W J H Penninx  • Daniel S Pine • Emily A Holmes • Andreas Reif

Published: July 10, 2021 • DOI: [https://doi.org/10.1016/S0140-6736\(21\)00931-4](https://doi.org/10.1016/S0140-6736(21)00931-4)







The British Journal of  
**Psychiatry**

## Safety planning-type interventions for suicide prevention: meta-analysis

Part of: [Suicide Prevention Collection](#)

Published online by Cambridge University Press: 30 April 2021

Chani Nuij , Wouter van Ballegooijen , Derek de Beurs, Dilfa Juniar, Annette Erlangsen , Gwendolyn Portzky, Rory C. O'Connor, Johannes H. Smit, Ad Kerkhof and Heleen Riper 

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nature  
genetics

## Identifying loci with different allele frequencies among cases of eight psychiatric disorders using CC-GWAS

Wouter J. Peyrot <sup>1,2,3</sup> and Alkes L. Price <sup>1,2,4</sup>

nature

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CORRESPONDENCE | 06 April 2021

## Burnout urgently needs robust research

THE LANCET

SEMINAR | VOLUME 397, ISSUE 10277, P914-927, MARCH 06, 2021

## Anxiety disorders

Prof Brenda WJH Penninx, PhD  • Prof Daniel S Pine, MD • Prof Emily A Holmes

Molecular  
Psychiatry

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Article | [Published: 23 October 2019](#)

## Successful treatment of post-traumatic stress disorder reverses DNA methylation marks


Christiaan H. Vinkers , Elbert Geuze, Sanne J. H. van Rooij, Mitzy Kennis, Remmelt R. Schür, Danny V Nispeling, Alicia K. Smith, Caroline M. Nievergelt, Monica Uddin, Bart P. F. Rutten, Eric Vermetten & Marco P. Boks 

Psychological Medicine

[cambridge.org/psm](https://cambridge.org/psm)

Original Article

## The mental health impact of COVID-19 and lockdown-related stressors among adults in the UK

Tarani Chandola<sup>1</sup> , Meena Kumari<sup>2</sup>, Cara L. Booker<sup>2</sup> and Michaela Benzzeval<sup>2</sup>

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## Can Transgenic Monkeys Help Us Innovate Transdiagnostic Therapies?

Odile A. van den Heuvel , M.D., Ph.D.

**Cognitive performance in older-age bipolar disorder: Investigating psychiatric characteristics, cardiovascular burden and psychotropic medication**Alexandra J. M. Beunders<sup>1,2</sup> | Tokie Kemp<sup>2</sup> | Nicole C. M. Korten<sup>1,2</sup> |  
Mardien L. Oudega<sup>1,2</sup> | Aartjan T. F. Beekman<sup>1,2</sup> | Ralph W. Kupka<sup>1,2</sup> | Max L. Stek<sup>1,2</sup> |  
Sigfried N. T. M. Schouws<sup>1,2</sup> | Annemiek Dols<sup>1,2,3</sup>

NeuroImage

Volume 231, 1 May 2021, 117834

**Associations between depression, lifestyle and brain structure: A longitudinal MRI study**Julia Binnewies<sup>a, b, c, d, e</sup>, Laura Nawijn<sup>a, b, c, d, e</sup>, Marie-José van Tol<sup>b, c, d, e</sup>, Nic J.A. van der Wee<sup>c, d, e</sup>, Dick J. Veltman<sup>a, b, c, d, e</sup>, Brenda W.J.H. Penninx<sup>a, b, c, d, e</sup>**The mental health impact of the COVID-19 pandemic on people with and without depressive, anxiety, or obsessive-compulsive disorders: a longitudinal study of three Dutch case-control cohorts**Kuan-Yu Pan, Almar A.L. Kok, Merijn Eikelenboom, Melany Horzfall, Frederike Jörg, Rob A. Luteijn, Didi Rhebergen, Patricia van Oppen, Erik J. Giltay<sup>a</sup>, Brenda W.J.H. Penninx<sup>a</sup>Schegman et al. Translational Psychiatry (2021) 11:118  
https://doi.org/10.1038/s41398-021-01219-8

Translational Psychiatry

## REVIEW ARTICLE

## Open Access

**Effects of tryptophan depletion on anxiety, a systematic review**Simone M. E. Schoorman<sup>a, b, c, d, e</sup>, Renske C. Bosman<sup>a, b, c, d, e</sup>, Anna D. T. Muntingh<sup>a, b, c, d, e</sup>, Anton J. L. M. van Balkom<sup>a, b, c, d, e</sup> and Neeltje M. Batelaan<sup>a, b, c, d, e</sup>

HOME MAGAZINE COMMUNITY INNOVATION

Research Article

Cell Biology, Genetics and Genomics

**An integrative study of five biological clocks in somatic and mental health**Rick Jansen<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Laura KM Han<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Josine E. Verhoeven<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Karolina A. Aberg<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Edwin CGJ van den Oord<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Yuri Milaneschi<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Brenda W.J.H. Penninx<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>

Psychoneuroendocrinology

Volume 133, November 2021, 105390

**Oral contraceptives, depressive and insomnia symptoms in adult women with and without depression**Margot W.L. Morssinkhof<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Femke Lamers<sup>b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Adriaan W. Hoogendoorn<sup>b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Anouk E. de Wit<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Harriette Riese<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Erik J. Giltay<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Odile A. van den Heuvel<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Brenda W. Penninx<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Birit F.P. Broekman<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>

Biological Psychiatry: Cognitive Neuroscience and Neuroimaging

Volume 6, Issue 10, October 2021, Pages 973-982



Archival Report

**Effects of Bergen 4-Day Treatment on Resting-State Graph Features in Obsessive-Compulsive Disorder**Anders L. Thorsen<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Chris Vriend<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Stella J. de Wit<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Olga T. Ousdal<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Kristen Hagen<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Bjarne Hansen<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Gerd Kvale<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>, Odile A. van den Heuvel<sup>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</sup>Social Psychiatry and Psychiatric Epidemiology (2021) 56:2199-2208  
https://doi.org/10.1007/s00127-021-02078-w

## ORIGINAL PAPER

**The effect of local Suicide Prevention Action Networks (SUPRANET) on stigma, taboo and attitudes towards professional help-seeking: an exposure-response analysis**Margot C. A. van der Burgt<sup>1,2,3</sup> · Aartjan T. F. Beekman<sup>2,3</sup> · Adriaan W. Hoogendoorn<sup>2,3</sup> · Guus Berkelmans<sup>1,4</sup> · Gerdien Franx<sup>1</sup> · Renske Gilissen<sup>1</sup>

JMIR Mental Health



Journal Information

Browse Journal

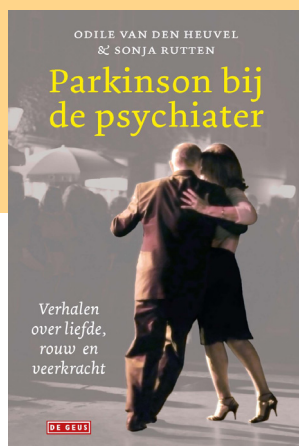
Published on 6.12.2021 in Vol 8, No 12 (2021): December

Preprints (earlier versions) of this paper are available at <https://preprints.jmir.org/preprint/32007>, first published July 19, 2021.**Examining the Theoretical Framework of Behavioral Activation for Major Depressive Disorder: Smartphone-Based Ecological Momentary Assessment Study**Claire Rosalie van Genugten<sup>1,2,3</sup> | Josien Schuurmans<sup>1,2</sup> | Adriaan W. Hoogendoorn<sup>1,2</sup> |  
Ricardo Araya<sup>4</sup> | Gerhard Andersson<sup>5,6</sup> | Rosa Baños<sup>7,8,9</sup> | Cristina Botella<sup>8,10</sup> |  
Arlinda Cerga Pashoja<sup>11</sup> | Roman Cieslak<sup>12,13</sup> | David Daniel Ebert<sup>14</sup> |  
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Johannes H. Smit<sup>1,2</sup> | Heleen Riper<sup>1,2,3,21,22</sup>

# SOCIETAL IMPACT

With two books Van den Heuvel & Rutte and Vinkers & Vis bridged the gap to a wider audience with facts and stories about two important issues: The use of anti-depressive medication and, Living with Parkinson with comorbid psychiatric disorders. The books received very enthusiastic reviews from a wide variety of media (Home - Psychiatry Amsterdam).

When we think of Parkinson's disease, we mainly think of trembling hands and sluggishness. But Parkinson's disease is also associated with psychiatric problems, such as anxiety, depression and psychosis. In a series of moving, poignant and comical true stories, psychiatrists Odile van den Heuvel and Sonja Rutten take us along in their daily work with Parkinson's patients. The personal stories flow smoothly into explanations about the various psychological complaints that can occur with Parkinson's disease, the medications (and their side effects) that patients have to deal with, but also themes such as euthanasia and the freedom not to treat are discussed. 'Parkinson's in the psychiatrist' is an ode to the resilience and creativity of people with Parkinson's and breaks the taboo around the psychiatric complaints associated with Parkinson's.



O. van den Heuvel & S. Rutten (2021),  
Amsterdam: De Geus, 174 pp.,  
ISBN 978-90-445-4466-4

*Prettig leesbaar boek over parkinson en psychiatrie | De Volkskrant*

More than a million Dutch people take antidepressants. This impressive number leads to the question what has happened? Is our mental health really under pressure from the ever-increasing stress? In their book "What about antidepressants", psychiatrist Christiaan Vinkers and pharmacist Roeland Vis try to get the real story out. They investigate how depression develops in our brain, whether there really is a depression epidemic, but also discuss the rapid rise of antidepressants. Has the pharmaceutical industry talked us into depression or are antidepressants a blessing in disguise? Are LSD and magic mushrooms the basis for a new generation of antidepressants? In their book, Vinkers and Vis get to the bottom of how well antidepressants work, what the side effects are, but also how you can stop using them again.



Vinkers C., & Vis. R. (2021), Hoe zit het nu echt met antidepressiva? (1e ed.). 180 Prometheus, 180 pp. ISBN: 9789044648812

# IN THE MEDIA

In 2020, many clinicians and scientists from our department featured in newspapers, radio, and television, indicating the relevance and impact of the research at our department. Among others, Aartjan Beekman, Brenda Penninx, Odile van den Heuvel, Christiaan Vinkers, Rosemarie Dröes, and Sandra Kooij were covered in the news.

## **Brenda Penninx** - interview Nov 2021 GZ-psychologie (magazine)

About 400,000 Dutch children have parents who suffer from depression and anxiety. Yet little is known about the risk of these children developing a mental disorder themselves, and little attention is paid to prevention. The so-called MARIO project can change that, says Brenda Penninx, professor of Psychiatric Epidemiology in the October issue of GZ-psychologie.



## **Odile van der Heuvel** - Columns in Parkinson Magazine (zie PURE) - Impulscontrolestoornissen - Parkinson Vereniging ([parkinson-vereniging.nl](https://parkinson-vereniging.nl))

According to the scientific literature, impulse control disorders occur in at least 6 – 7% of patients with Parkinson's disease. In reality, these are probably more common. However, there is often a major barrier for the patient or his partner to indicate to the doctor that such problems exist. Professor Odile van der Heuvel discusses these disorders in her columns in the Parkinson Magazine.



**Rosemarie Droës** - Ontmoetingscentra voor mensen met dementie en vrijwilligerswerk -

Meeting centers have been set up from the beginning together with people with dementia and family caregivers, so it's natural to pull together in everything you do there,' says professor of psychosocial support Rose-Marie Dröes. In this interview for the local radio Eemslân she explains how this works.



**Christiaan Vinkers** -Antidepressiva hebben ten onrechte een slechte naam, Financieel Dagblad, 13 november 2021

It is a persistent opinion: the Dutch are given 'lucky pills' far too easily. Psychiatrist Christiaan Vinkers knows better. "There are plenty of reasons to be critical of antidepressants, but we should be glad they exist." Professor Christiaan Vinkers discusses the use antidepressants in het Financieel Dagblad

OPINIE

## Opinie: Ernstige psychische nood kán sneller behandeld worden, er ligt genoeg geld op de plank

**Annemieke van Straten, Marit Sijbrandij, Pim Cuijpers, Aartjan Beekman.**

31 maart 2021. Opinie sectie Volkskrant. Laten we milde psychische klachten wel goed behandelen.

A part of mental healthcare money goes to psychological help for people with mild psychological complaints that function well. However, the solution is not to provide less care for people with mild complex problems. Firstly, because the demand for care is justified. Secondly, because there is a high probability that the problems of these people will become complex if not intervened in time, with unavoidable consequences for the patient and their immediate environment. Thirdly, because the budget that goes to this target group is limited. It concerns precisely the group with serious(er) and complex problems. Aartjan Beekman –among others- gave their opinion



**Sandra Kooij** - Interview: Let op vrouwen met ADHD, de Jonge Psychiater – 6/8/21

The symposium 'ADHD and Women' took place on June 8, 2021. As an expert in the field of ADHD, Prof. Dr. Sandra Kooij spoke about the influence of hormone fluctuations and the transition on ADHD. The answers to the questions posed to her are bundled in De Jonge Psychiater.



# DISSERTATIONS 2021

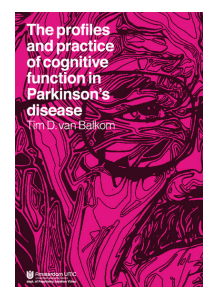
## Dissertation at VUmc, department of Psychiatry

T.D. van Balkom - October 4, 2021

**The profiles and practice of cognitive function in parkinson's disease.** Vrije Universiteit Amsterdam.

Supervisors: prof. dr. O.A. van den Heuvel, prof. dr. H.W. Berendse

Co-supervisors: dr. C. Vriend, prof. dr. Y.D. van den Werf



W.A. (Wicher) Bokma - December 10, 2021

**Worrying about the future: towards evidence-based prognosis in anxiety disorders.** Vrije Universiteit Amsterdam.

Supervisor: prof. dr. A.J.L.M van Balkom

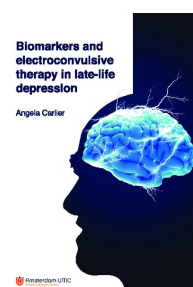
Co-supervisor: prof.dr. B.W.J.H. Penninx

A. (Angela) Carlier - October 15, 2021

**Biomarkers and electroconvulsive therapy in late-life depression.** Vrije Universiteit Amsterdam.

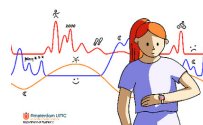
Supervisor: prof. dr. M.L. Stek

Co-supervisors: dr. D. Rhebergen, dr. E. van Exel



**SLEEP  
CIRCADIAN RHYTHMS and  
PHYSICAL ACTIVITY**  
in DEPRESSION and ANXIETY  
*The role of ambulatory assessment tools*

Sonia Difrancesco



S. (Sonia) Difrancesco - October 28, 2021

**Sleep, circadian rhythms and physical activity in depression and anxiety: The role of ambulatory assessment tools.** Vrije Universiteit Amsterdam.

Supervisor: prof. dr. B.W.J.H. Penninx

Co-supervisor: dr. ir. F. Lamers



I.P.H. (Ires) Ghielen - April 23, 2021

**Surfing the waves of Parkinson's disease: Understanding and treating anxiety in the context of motor symptoms.** Vrije Universiteit Amsterdam.

Supervisors: prof. dr. O.A. van den Heuvel, dr. E.E.H. van Wegen

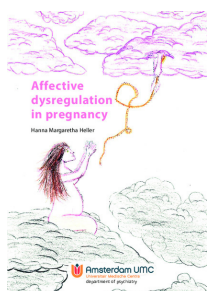
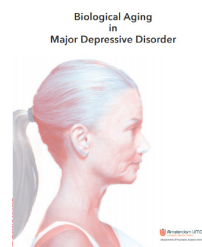
Co-supervisor: dr. S. Rutten

L.K.M. (Laura) Han - June 4, 2021

**Biological aging in major depressive disorder.** Vrije Universiteit Amsterdam.

Supervisor: prof. dr. B.W.J.H. Penninx

Co-supervisor: dr. M. Aghajani



H.M. (Hansje) Heller - December 13, 2021

**Affective dysregulation in pregnancy.** Vrije Universiteit Amsterdam.

Supervisors: prof. dr. A. Honig, prof. dr. C.J.M. de Groot

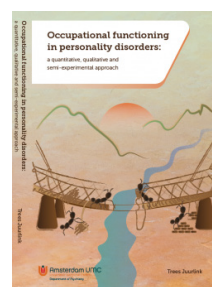
Co-supervisors: prof. dr. A. van Straten, dr. B.F.P. Broekman

T.T. (Trees) Juurlink - January 26, 2021

**Occupational functioning in personality disorders: a quantitative, qualitative and semi-experimental approach.** Vrije Universiteit Amsterdam.

Supervisors: prof. dr. A.T.F. Beekman, prof. dr. J.R. Anema

Co-supervisors: dr. F. Lamers, dr. H.J.F. van Marle



Digital support for self-management and meaningful activities of people with mild dementia  
Development, implementation and feasibility of a person-centred touch-screen intervention



Y.J.F. (Yvonne) Kerkhof - October 8, 2021

**Digital support for self-management and meaningful activities of people with mild dementia. Development, implementation and feasibility of a person-centred touch-screen intervention.** Vrije Universiteit Amsterdam.

Supervisors: prof. dr. R.M. Dröes, prof. dr. M.J.L. Graff

Co-supervisors: dr. H.M. de Vocht †, dr. A. Bergsma

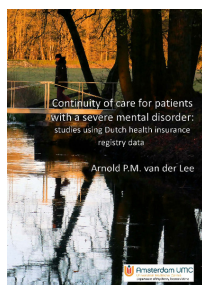
E. (Esther) Krijnen- de Bruin - June 17, 2021

**Relapse prevention in patients with anxiety or depressive disorders.** Vrije Universiteit Amsterdam.

Supervisors: prof. dr. B.K.G. van Meijel, prof. dr. A. van Straten

Co-supervisors: dr. A.D.T. Muntingh, dr. N.M. Batelaan





A.P.M (Arnold) van der Lee - December 20, 2021

**Continuity of care for patients with a severe mental disorder.** Vrije Universiteit Amsterdam.

Supervisors: prof. dr. A.T.F. Beekman, prof. dr. L. de Haan

B.A. (Bianca) Lever-van Milligen - November 16, 2021

**The interplay between depression, anxiety and objectively measured physical function.** Vrije Universiteit Amsterdam.

Supervisors: prof. dr. B.W.J.H. Penninx, prof. dr. J.H. Smit

Co-supervisor: dr. ir. F. Lamers



J.M (Joeke) van der Molen-van Santen - December 3, 2021

**Remember to play... and stay active! Evaluation of the effects, cost-effectiveness and implementation of exergaming for people living with dementia and their informal caregivers.** Vrije Universiteit Amsterdam.

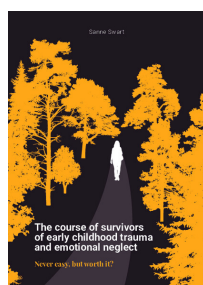
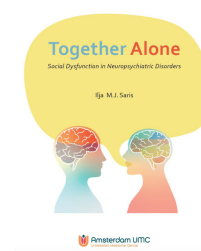
Supervisors: prof. dr. R.M. Dröes, prof. dr. A. van Straten

I.M.J (Ilja) Saris - October 13, 2021

**Together alone: Social dysfunction in neuropsychiatric disorders.** Vrije Universiteit Amsterdam.

Supervisor: prof. dr. B.W.J.H. Penninx

Co-supervisor: dr. M. Aghajani



S.M. (Sanne) Swart - October 5, 2021

**The course of survivors of early childhood trauma and emotional neglect: never easy, but worth it?.** Vrije Universiteit Amsterdam.

Supervisor: prof. dr. J.H. Smit

Co-supervisor: dr. N. Draijer, dr. W. Langeland

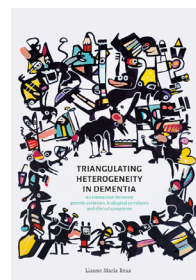
## Dissertation at VUmc, department of Neurology

L.M. (Lianne) Reus - September 28, 2021

**Triangulating Heterogeneity in Dementia: An interaction between genetic variation, biological correlates and clinical symptoms.** Vrije Universiteit Amsterdam.

Supervisors: prof. dr. Y.A.L. Pijnenburg, prof. dr. B.W.J.H. Penninx, dr. P.J. Visser

Co-supervisor: dr. B.M. Tijms



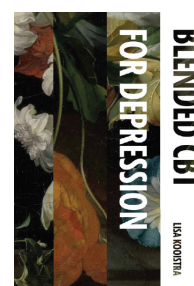
## Dissertation at VU University

L.C. (Lisa) Kooistra - January 14, 2021

**Blended CBT for Depression.** Vrije Universiteit Amsterdam.

Supervisors: prof. dr. H. Riper, prof. dr. P.C. van Oppen

Co-supervisors: dr. J.J. Ruwaard †, dr. J. Wiersma



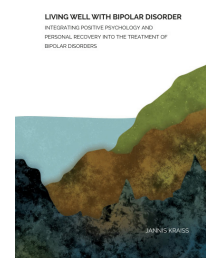
## External dissertations

J.T. (Jannis) Kraiss - November 12, 2021

**Living well with bipolar disorder: Integrating positive psychology and personal recovery into the treatment of bipolar disorders.** Universiteit Twente.

Supervisor: prof. dr. E.T. Bohlmeijer, prof. dr. R.W. Kupka

Co-supervisor: dr. P.M. ten Klooster, dr. M. Chrispijn



L.E. (Laura) Kunst - November 12, 2021

**Taking charge. The role of autonomy in anxiety and effectiveness of autonomy enhancing treatment.** Universiteit Tilburg.

Supervisor: prof. dr. M.H. J. Bekker, prof. A.J.L.M. van Balkom

Co-supervisor: dr. J. Maas

Contact information

Amsterdam UMC, location Vrije Universiteit department of Psychiatry  
Department of Research and Innovation, GGZ inGeest  
Oldenaller 1  
1081 HJ Amsterdam  
T. 0031 (0)20 788 4666

Website:

[www.psychiatryamsterdam.nl](http://www.psychiatryamsterdam.nl)

Coordination and support annual report:

Research & Innovation Management team

Contact: [m.eikelenboom@amsterdamumc.nl](mailto:m.eikelenboom@amsterdamumc.nl) (Merijn Eikelenboom)

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