

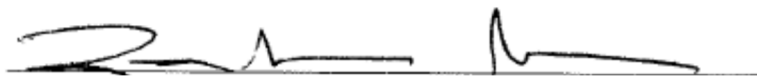
Department of Behavioural Sciences and Learning

Division of Psychology 2023 Annual Report

Σ Ψ'23



This is the 11th annual report of the publications from the division of Psychology at the Department of Behavioural Sciences and Learning, Linköping University, Sweden. The psychology division has several researchers and research groups. We cover a broad range of topics within psychology, including cognitive, developmental, social, health and clinical psychology. Different research methods are also represented. Researchers at the division work closely with other universities both nationally and internationally. We hope that the annual report will give an overview of the research conducted here and that it can be useful for students, researchers and other colleagues who are interested in psychology and the research we do here in Linköping.

A handwritten signature in black ink, consisting of a series of connected loops and strokes, positioned above a horizontal line.

*Gerhard Andersson, PhD, professor
Editor for the Annual Report 2023*

Peer-reviewed articles, book chapters and books¹

Ahmad, A., Brylid, A., Dahle, C., Saleh, M., *Dahlström, Ö.*, Enocsson, H., & Sjöwall, C. (2023). Doubtful clinical value of subtyping anti-U1-RNP antibodies regarding the RNP-70 kDa antigen in sera of patients with systemic lupus Erythematosus. *International Journal of Molecular Sciences*, 24, 10398.

The detection of antinuclear antibodies is central to the diagnosis and prognosis of systemic lupus erythematosus (SLE), primary Sjögren's syndrome (pSS) and mixed connective tissue disease (MCTD). Anti-U1-RNP and anti-RNP70 antibodies were assayed in the sera of patients with SLE (n = 114), pSS (n = 54) and MCTD (n = 12). In the SLE group, 34/114 (30%) were anti-U1-RNP positive, and 21/114 (18%) were both anti-RNP70 positive and anti-U1-RNP positive. In the MCTD group, 10/12 (83%) were anti-U1-RNP positive, and 9/12 (75%) were anti-RNP70 positive. Only one individual with pSS was antibody positive (for both anti-U1-RNP and anti-RNP70). All anti-RNP70-positive samples were also anti-U1-RNP positive. Anti-U1-RNP-positive subjects with SLE were younger ($p < 0.0001$); showed lower concentrations of complement protein 3 ($p = 0.03$); had lower eosinophil ($p = 0.0005$), lymphocyte ($p = 0.006$) and monocyte ($p = 0.03$) counts; and had accrued less organ damage ($p = 0.006$) than the anti-U1-RNP-negative SLE patients. However, we observed no significant clinical or laboratory parameter differences between the anti-U1-RNP-positive individuals with/without anti-RNP70 in the SLE group. In conclusion, anti-RNP70 antibodies are not exclusive to MCTD but are rarely detected in pSS and healthy individuals. In SLE, anti-U1-RNP antibodies are associated with a clinical phenotype that resembles MCTD, with hematologic involvement and less damage accrual. Based on our results, the clinical value of subtyping anti-RNP70 in anti-U1-RNP-positive sera appears to be of limited value.

Aminoff, V., Bobeck, J., Hjort, S., Sörliden, E., Ludvigsson, M., *Berg, M.*, & *Andersson, G.* (2023). Tailored internet-based psychological treatment for psychological problems associated with the COVID-19 pandemic: A randomized controlled trial. *Internet Interventions*, 34, 100662.

The COVID-19 pandemic influence mental health in both infected and non-infected populations. In this study we examined if individually tailored internet-based cognitive behavioral therapy (ICBT) could be an effective treatment for psychological symptoms related to the pandemic. Following recruitment we included 76 participants who were randomized to either a treatment group (n =

¹ Member of the division in italics.

37) or a waitlist control group (n = 39). The treatment group received 8 modules (out of 16 possible) during 8 weeks with weekly therapist support. We collected data on symptoms of depression, experienced quality of life, anxiety, stress, anger, insomnia, PTSD, and alcohol use before, after the treatment and at one year follow-up. Using multiple regression analysis, group condition was found to be a statistically significant predictor for a decrease, favoring the treatment group, in symptoms of depression, insomnia, and anger with small to moderate effect sizes. The improvements remained at one year follow-up. Group condition did not significantly predict changing symptoms regarding experienced quality of life, anxiety, stress, PTSD and alcohol use. Findings indicate that ICBT is an effective intervention for some psychological symptoms associated with the COVID-19 pandemic. There is a need for further studies on mechanisms of change and on tailored ICBT for problems associated with crises like the pandemic.

Andersson, G. (2023). The effects of psychotherapy. Encyclopedia of Mental Health (3 ed., Vol. 1, pp. 717-720): Elsevier.

Updated brief summary of what is known about the effects of psychotherapy.

Andersson, G. (2023). Missed opportunities in clinical psychology: What about running factorial design internet trials and using other outcomes than self-report? Clinical Psychology in Europe, 5, e12063.

Short paper on challenges and opportunities in clinical psychology. In the paper alternatives are proposed.

Andersson, G., Käll, A., Juhlin, S., Wahlström, C., de Fine Licht, E., Färdeman, S., Franck, A., Tholcke, K., Nachtweij, K., Fransson, E., Vernmark, K., Ludvigsson, M., & Berg, M. (2023). Free choice of treatment content, support on demand and supervision in internet-delivered CBT for adults with depression: A randomized factorial design trial. Behaviour Research and Therapy, 162, 104265.

Even if much is known regarding the effects of internet-delivered cognitive behaviour therapy (ICBT) for depression there are several topics that have not been studied. In this factorial design trial with 197 participants we investigated if clients in ICBT could select treatment modules themselves based on a selection of 15 tailored treatment modules developed for use in ICBT for depression. We contrasted this against clinician-tailored module selection. We also investigated if support on demand (initiated by the client) could work as well as scheduled support. Finally, we tested if clients that were mentioned in supervision would

improve more than clients not mentioned (with the exception of acute cases). The treatment period lasted for 10 weeks, and we measured effects at post-treatment and two-year follow-up. Measures of depression and secondary outcomes were collected at pre-treatment, post-treatment and two-year follow-up. Overall, within-group effects were large across conditions (e.g., $d = 1.73$ on the BDI-II). We also found a small but significant difference in favour of self-tailored treatment over clinician-tailored ($d = 0.26$). Within-group effects for the secondary measures were all moderate to large including a test of knowledge about CBT. The other two contrasts "support on demand" and "supervision" yielded mostly non-significant differences, with the exception of a larger dropout rate in the support on demand condition. There were few negative effects (2.2%). Effects were largely maintained at a two-year follow-up. We conclude that clients can choose treatment modules and that support on demand may work. The role of supervision is not yet clear as advice can be transferred across clients.

Asbrand, J., Gerdes, S., Breedvelt, J., Guidi, J., Hirsch, C., Maercker, A., Douilliez, C., Andersson, G., Debbané, M., Cieslak, R., Rief, W., & Bockting, C. (2023). Clinical psychology and the COVID-19 pandemic: A mixed methods survey among members of the European Association of Clinical Psychology and Psychological Treatment (EACLIPT). *Clinical Psychology in Europe*, 5, e8109.

The COVID-19 pandemic has affected people globally both physically and psychologically. The increased demands for mental health interventions provided by clinical psychologists, psychotherapists and mental health care professionals, as well as the rapid change in work setting (e.g., from face-to-face to video therapy) has proven challenging. The current study investigates European clinical psychologists and psychotherapists' views on the changes and impact on mental health care that occurred due to the COVID-19 pandemic. It further aims to explore individual and organizational processes that assist clinical psychologists' and psychotherapists' in their new working conditions, and understand their needs and priorities. Members of the European Association of Clinical Psychology and Psychological Treatment (EACLIPT) were invited ($N = 698$) to participate in a survey with closed and open questions covering their experiences during the first wave of the pandemic from June to September 2020. Participants ($n = 92$) from 19 European countries, mostly employed in universities or hospitals, completed the online survey. Results of qualitative and quantitative analyses showed that clinical psychologists and psychotherapists throughout the first wave of the COVID-19 pandemic managed to continue to provide treatments for patients who were experiencing emotional distress. The challenges (e.g., maintaining a working relationship through video treatment) and opportunities (e.g., more flexible working hours) of working through this time were identified.

Recommendations for mental health policies and professional organizations are identified, such as clear guidelines regarding data security and workshops on conducting video therapy.

Aspernäs, J., Erlandsson, A., & Nilsson, A. (2023). Misperceptions in a post-truth world: Effects of subjectivism and cultural relativism on bullshit receptivity and conspiracist ideation. Journal of Research in Personality, 105, 104394.

This research investigated whether belief in truth relativism yields higher receptivity to misinformation. Two studies with representative samples from Sweden (Study 1, N = 1005) and the UK (Study 2, N = 417) disentangled two forms of truth relativism: subjectivism (truth is relative to subjective intuitions) and cultural relativism (truth is relative to cultural context). In Study 1, subjectivism was more strongly associated with receptivity to pseudo-profound bullshit and conspiracy theories than cultural relativism was. In Study 2 (preregistered), subjectivism predicted higher receptivity to both forms of misinformation over and above effects of analytical and actively open-minded thinking, profoundness receptivity, ideology, and demographics; the unique effects of cultural relativism were in the opposite direction (Study 1) or non-significant (Study 2).

Aspernäs, J., Erlandsson, A., & Nilsson, A. (2023). Motivated formal reasoning: Ideological belief bias in syllogistic reasoning across diverse political issues. Thinking & Reasoning, 29, 43-69.

This study investigated ideological belief bias, and whether this effect is moderated by analytical thinking. A Swedish nationally representative sample (N = 1005) evaluated non-political and political syllogisms and were asked whether the conclusions followed logically from the premises. The correct response in the political syllogisms was aligned with either leftist or rightist political ideology. Political orientation predicted response accuracy for political but not non-political syllogisms. Overall, the participants correctly evaluated more syllogisms when the correct response was congruent with their ideology, particularly on hot-button issues (asylum to refugees, climate change, gender-neutral education, and school marketization). Analytical thinking predicted higher accuracy for syllogisms of any kind among leftists, but it predicted accuracy only for leftist and non-political syllogisms among rightists. This research contributes by refining a promising paradigm for studying politically motivated reasoning, demonstrating ideological belief bias outside of the United States across diverse political issues, and providing the first evidence that analytical thinking may reduce such bias.

Asutay, E., Karlsson, H., & Västfjäll, D. (2023). Affective responses drive the impact neglect in sustainable behavior. *Isience*, 26, 108280.

We need unparalleled human behavioral changes to mitigate the effects of climate change. However, recent studies suggest that people are not good at identifying mitigative behaviors that are effective in reducing carbon emissions. Thus, even when there is an intention to engage in climate action, people are not necessarily making the most effective choices. This suggests that there is an impact of neglecting in evaluative judgments about mitigative behaviors. Here, using an online survey (N = 555), we show that people have a rather poor understanding of the mitigation potential of human behaviors, and both impact judgments and the likelihood of adoption of mitigative behaviors are largely influenced by emotional processes. These findings have potential implications for how to motivate impactful climate action in the future and point toward the importance to fully understand how affect and emotions influence impact judgments and pro-environmental behavior.

Axelsson, E., Kern, D., Hedman-Lagerlöf, E., Lindfors, P., Palmgren, J., Hesser, H., Andersson, E., Johansson, R., Olén, O., Bonnert, M., Lalouni, M., & Ljótsson, B. (2023). Psychological treatments for irritable bowel syndrome: A comprehensive systematic review and meta-analysis. *Cognitive Behaviour Therapy*, 52, 565–584.

A wide range of psychological treatments have been found to reduce the symptoms of irritable bowel syndrome (IBS) but their relative effects are unclear. In this systematic review and meta-analysis, we determined the effects of psychological treatments for IBS, including subtypes of cognitive behavior therapy, versus attention controls. We searched 11 databases (March 2022) for studies of psychological treatments for IBS, reported in journal articles, books, dissertations, and conference abstracts. The resulting database comprised 9 outcome domains from 118 studies published in 1983–2022. Using data from 62 studies and 6496 participants, we estimated the effect of treatment type on improvement in composite IBS severity using random-effects meta-regression. In comparison with the attention controls, there was a significant added effect of exposure therapy ($g = 0.52$, 95% CI = 0.17–0.88) and hypnotherapy ($g = 0.36$, 95% CI = 0.06–0.67) when controlling for the pre- to post-assessment duration. When additional potential confounders were included, exposure therapy but not hypnotherapy retained a significant added effect. Effects were also larger with a longer duration, individual treatment, questionnaire (non-diary) outcomes, and recruitment outside of routine care. Heterogeneity was substantial. Tentatively, exposure therapy appears to be a particularly promising treatment for IBS. More direct comparisons in randomized controlled trials are needed.

Azevedo, F., Pavlovic, T., ... Västfjäll, D., Sampaio, W. (2023). Social and moral psychology of COVID-19 across 69 Countries. *Nature Scientific Data*, 10, 272.

The COVID-19 pandemic has affected all domains of human life, including the economic and social fabric of societies. One of the central strategies for managing public health throughout the pandemic has been through persuasive messaging and collective behaviour change. To help scholars better understand the social and moral psychology behind public health behaviour, we present a dataset comprising of 51,404 individuals from 69 countries. This dataset was collected for the International Collaboration on Social & Moral Psychology of COVID-19 project (ICSMP COVID-19). This social science survey invited participants around the world to complete a series of moral and psychological measures and public health attitudes about COVID-19 during an early phase of the COVID-19 pandemic (between April and June 2020). The survey included seven broad categories of questions: COVID-19 beliefs and compliance behaviours; identity and social attitudes; ideology; health and well-being; moral beliefs and motivation; personality traits; and demographic variables. We report both raw and cleaned data, along with all survey materials, data visualisations, and psychometric evaluations of key variables.

Bejerot, S., Eklund, D., Hesser, H., Hietala, M. A., Kariis, T., Lange, N., Lebedev, A., Montgomery, S., Nordenskjöld, A., Petrovic, P., Söderbergh, A., Thunberg, P., Wikström, S., Humble, M. B., & RCT-Rits study collaboration group (2023). Study protocol for a randomized controlled trial with rituximab for psychotic disorder in adults (RCT-Rits). *BMC Psychiatry*, 23, 771.

The role of inflammation in the aetiology of schizophrenia has gained wide attention and research on the association shows an exponential growth in the last 15 years. Autoimmune diseases and severe infections are risk factors for the later development of schizophrenia, elevated inflammatory markers in childhood or adolescence are associated with a greater risk of schizophrenia in adulthood, individuals with schizophrenia have increased levels of pro-inflammatory cytokines compared to healthy controls, and autoimmune diseases are overrepresented in schizophrenia. However, treatments with anti-inflammatory agents are so far of doubtful clinical relevance. The primary objective of this study is to test whether the monoclonal antibody rituximab, directed against the B-cell antigen CD20 ameliorates psychotic symptoms in adults with schizophrenia or schizoaffective disorder and to examine potential mechanisms. A secondary objective is to examine characteristics of inflammation-associated psychosis and to identify pre-treatment biochemical characteristics of rituximab

responders. A third objective is to interview a subset of patients and informants on their experiences of the trial to obtain insights that rating scales may not capture. A proof-of-concept study employing a randomised, parallel-group, double-blind, placebo-controlled design testing the effect of B-cell depletion in patients with psychosis. 120 participants with a diagnosis of schizophrenia spectrum disorders (SSD) (ICD-10 codes F20, F25) will receive either one intravenous infusion of rituximab (1000 mg) or saline. Psychiatric measures and blood samples will be collected at baseline, week 12, and week 24 post-infusion. Brief assessments will also be made in weeks 2 and 7. Neuroimaging and lumbar puncture, both optional, will be performed at baseline and endpoints. Approximately 40 of the patients and their informants will be interviewed for qualitative analyses on the perceived changes in well-being and emotional qualities, in addition to their views on the research. This is the first RCT investigating add-on treatment with rituximab in unselected SSD patients. If the treatment is helpful, it may transform the treatment of patients with psychotic disorders. It may also heighten the awareness of immune-psychiatric disorders and reduce stigma.

Berg, M., Klemetz, H., Lindegaard, T., & Andersson, G. (2023). Self-esteem in new light: a qualitative study of experiences of internet-based cognitive behaviour therapy for low self-esteem in adolescents. BMC Psychiatry, 23, 810.

Low self-esteem is common and can be impairing for adolescents. Treatments that primarily target low-esteem are lacking. Internet-delivered cognitive behaviour therapy (ICBT) is a treatment that can be used for adolescents but ICBT is yet to be evaluated for low self-esteem using qualitative methods. The aim of this study was to investigate experiences of participating in a novel ICBT treatment for adolescents suffering from low self-esteem.

Fifteen adolescent girls who had received ICBT consented to participate in a semi-structured qualitative telephone interview at post-treatment. Data were analysed and categorised using inductive Thematic Analysis. Results showed four overarching themes; (1) Increased awareness and agency in difficult situations, (2) Enhanced self-image, (3) Unique but not alone, and (4) Widened understanding and new perspectives. Participants reported positive changes in their thinking and behaviour, as well as helpful learning experiences in relation to themselves and their self-esteem. For instance, participants described a more self-accepting attitude, learned how to manage negative thoughts, and experienced an increased sense of connection to others. The results suggest that ICBT is experienced as helpful and will inform further use and development of ICBT for low self-esteem. Future studies should validate and further evaluate experiences of ICBT for low self-esteem in other settings and in particular for boys as the study only include female participants.

Bergvall, H., Ghaderi, A., Andersson, J., Lundgren, T., *Andersson, G.*, & Bohman, B. (2023). Development of competence in cognitive-behavioural therapy and the role of metacognition among clinical psychology and psychotherapy students. *Behavioural and Cognitive Psychotherapy*, *51*, 200–213.

There is a paucity of research on therapist competence development following extensive training in cognitive behavioural therapy (CBT). In addition, metacognitive ability (the knowledge and regulation of one's cognitive processes) has been associated with learning in various domains but its role in learning CBT is unknown. The aim was to investigate to what extent psychology and psychotherapy students acquired competence in CBT following extensive training, and the role of metacognition. CBT competence and metacognitive activity were assessed in 73 psychology and psychotherapy students before and after 1.5 years of CBT training, using role-plays with a standardised patient. Using linear mixed modelling, we found large improvements of CBT competence from pre- to post-assessment. At post-assessment, 72% performed above the competence threshold (36 points on the Cognitive Therapy Scale-Revised). Higher competence was correlated with lower accuracy in self-assessment, a measure of metacognitive ability. The more competent therapists tended to underestimate their performance, while less competent therapists made more accurate self-assessments. Metacognitive activity did not predict CBT competence development. Participant characteristics (e.g. age, clinical experience) did not moderate competence development. Competence improved over time and most students performed over the threshold post-assessment. The more competent therapists tended to under-rate their competence. In contrast to what has been found in other learning domains, metacognitive ability was not associated with competence development in our study. Hence, metacognition and competence may be unrelated in CBT or perhaps other methods are required to measure metacognition.

Bertills, K. (2023). Inclusion of children with physical restrictions in out-of-the classroom activities. In H. Santoshi, B. Rashida, & D. Shakila (Eds.), *Teaching in inclusive classrooms: Issues, considerations, and strategies. Handbook for Special Needs Education to Teachers in Inclusive Classrooms*. Taylor & Francis.

This chapter highlights teachers in an inclusive classroom various teaching strategies and environmental aspects to consider that facilitate the participation and interaction of students with disabilities in out-of-the-classroom activities. Furthermore, quantitative time-sampling methods to observe student engagement in relation to teaching behaviours in regular school-based out-of-the-classroom

activities give novel information about successful inclusive teaching practices. The five A's (availability, accessibility, accommodability, affordability, and acceptability) can be used to map and explore environmental aspects of inclusion.

Bertills, K. (2023). Att anpassa idrottsundervisningen – Hur ska vi göra för att du ska kunna vara med? Idrott & Hälsa, 1, 7-8.

Jag vet inte riktigt, jag bara gör svarar lärarna på frågan om hur de gör för att inkludera elever med funktionsnedsättning i idrottsundervisningen. Idrottslärarna arbetar på högstadiet och deltar i en fokusgruppsintervju där sju av de åtta lärarna har mer än sex års arbetslivserfarenhet. De undervisar på olika skolor som deltog i en större studie (450 elever, 22 idrottslärare) med fokus på trettio elever med funktionsnedsättning. Frågor om hur de anpassar undervisningen och vilka särskilda anpassningar som krävs för att elever med funktionsnedsättning ska vilja vara med och kunna vara delaktiga. Svaren kan sammanfattas i två teman: vikten av att ha en strukturerad och välkomnande miljö och behovet av att anpassa idrottsmiljön.

Beukes, E. W., Andersson, G., & Manchaiah, V. (2023). Third party disability for significant others of individuals with tinnitus: A cross-sectional survey design. Audiology Research, 13, 378–388.

There is currently increasing awareness of third-party disability, defined as the disability and functioning of a significant other (SO) due to a health condition of one of their family members. The effects of third-party disability on the SOs of individuals with tinnitus has received little attention. To address this knowledge gap, this study investigated third-party disability in the significant others (SOs) of individuals with tinnitus. A cross-sectional survey design included 194 pairs of individuals from the USA with tinnitus and their significant others. The SO sample completed the Consequences of Tinnitus on Significant Others Questionnaire (CTSOQ). Individuals with tinnitus completed standardized self-reported outcome measures for tinnitus severity, anxiety, depression, insomnia, hearing-related quality of life, tinnitus cognitions, hearing disability, and hyperacusis. The CTSOQ showed that 34 (18%) of the SOs were mildly impacted, 59 (30%) were significantly impacted, and 101 (52%) were severely impacted. The clinical variables of tinnitus severity, anxiety, and hyperacusis in individuals with tinnitus were the best predictors of the impact of tinnitus on SOs. These results show that the SOs of individuals with tinnitus may experience third-party disability. The effect of the individual's tinnitus on their SO may be greater when the individual with tinnitus has a higher level of tinnitus severity, anxiety, and hyperacusis.

Bjureberg, J., Ojala, O., Hesser, H., Häbel, H., Sahlin, H., Gratz, K. L., Tull, M. T., Claesdotter Knutsson, E., Hedman-Lagerlöf, E., Ljótsson, B., & Hellner, C. (2023). Effect of internet-delivered emotion regulation individual therapy for adolescents with nonsuicidal self-injury disorder: A randomized clinical trial. *JAMA Network Open*, 6, e2322069.

Nonsuicidal self-injury is prevalent in adolescence and associated with adverse clinical outcomes. Effective interventions that are brief, transportable, and scalable are lacking. To test the hypotheses that an internet-delivered emotion regulation individual therapy for adolescents delivered adjunctive to treatment as usual is superior to treatment as usual only in reducing nonsuicidal self-injury and that improvements in emotion regulation mediate these treatment effects. This 3-site, single-masked, randomized superiority trial enrolled participants from November 20, 2017, to April 9, 2020. Eligible participants were aged between 13 and 17 years and met diagnostic criteria for nonsuicidal self-injury disorder; they were enrolled as a mixed cohort of consecutive patients and volunteers. Parents participated in parallel to their children. The primary end point was at 1 month after treatment. Participants were followed up at 3 months posttreatment. Data collection ended in January 2021. Twelve weeks of therapist-guided, internet-delivered emotion regulation individual therapy delivered adjunctive to treatment as usual vs treatment as usual only. Primary outcome was the youth version of the Deliberate Self-harm Inventory, both self-reported by participants prior to treatment, once every week during treatment, and for 4 weeks posttreatment, and clinician-rated by masked assessors prior to treatment and at 1 and 3 months posttreatment. A total of 166 adolescents (mean [SD] age, 15.0 [1.2] years; 154 [92.8%] female) were randomized to internet-delivered emotion regulation therapy plus treatment as usual (84 participants) or treatment as usual only (82 participants). The experimental intervention was superior to the control condition in reducing clinician-rated nonsuicidal self-injury (82% vs 47% reduction; incidence rate ratio, 0.34; 95% CI, 0.20-0.57) from pretreatment to 1-month posttreatment. These results were maintained at 3-month posttreatment. Improvements in emotion dysregulation mediated improvements in self-injury during treatment. In this randomized clinical trial, a 12-week, therapist-guided, internet-delivered emotion regulation therapy delivered adjunctive to treatment as usual was efficacious in reducing self-injury, and mediation analysis supported the theorized role of emotion regulation as the mechanism of change in this treatment. This treatment may increase availability of evidence-based psychological treatments for adolescents with nonsuicidal self-injury.

Bjureberg, J., Ojala, O., Berg, A., Edvardsson, E., Kolbeinsson, Ö., Molander, O., Morin, E., Nordgren, L., Palme, K., Särholm, J., Wedin, L., Rück, C., Gross, J. J., & Hesser, H. (2023). Targeting maladaptive anger with brief therapist-supported internet-delivered emotion regulation treatments: A randomized controlled trial. *Journal of Consulting and Clinical Psychology, 91*, 254-266.

To evaluate the relative impact of three brief therapist-supported internet-delivered emotion regulation treatments for maladaptive anger (mindful emotion awareness [MEA], cognitive reappraisal [CR], and mindful emotion awareness + cognitive reappraisal [MEA + CR]) and to test whether baseline levels of anger pathology moderate treatment outcome. Treatments were evaluated in a randomized controlled trial. In total, 234 participants (59% female; mean age = 41.1, SD = 11.6) with maladaptive anger were randomized to MEA (n = 78), CR (n = 77), or MEA + CR (n = 79). Self-reported primary and secondary outcomes were followed up at primary endpoint, 3 months after treatment termination (88% retention). Primary outcomes were also assessed weekly during a prolonged baseline phase (4 weeks) and an active treatment phase (4 weeks). At the primary endpoint, the MEA + CR was superior in terms of anger expression ($d = 0.27$ 95% confidence interval, CI [0.03, 0.51]), aggression ($d = 0.43$ [0.18, 0.68]), and anger rumination ($d = 0.41$ [0.18, 0.63]). MEA + CR was particularly effective in reducing anger expression ($d = 0.66$ [0.21, 1.11]), aggression ($d = 0.90$ [0.42, 1.39]), and anger rumination ($d = 0.80$ [0.40, 1.20]) for individuals who reported high values (+1SD) of the outcomes at baseline. Brief therapist-supported internet-delivered MEA and CR treatments are effective interventions for maladaptive anger. Combining MEA and CR is especially effective in reducing anger expression and aggression, particularly in individuals who report higher levels of initial anger pathology. The present study highlights the importance of emotion regulation as an important treatment target for reducing maladaptive anger.

Björkhammer, C., Samuelsson, J., Träff, U., & Östergren, R. (2023). The effects of a whole-class mathematics intervention on students' fraction knowledge in primary school. *Scandinavian Journal of Educational Research, 68*, 1275–1289.

The intention of the study was to examine the effects of a fraction intervention in a whole-class environment. The intervention aimed to enhance students' conceptual fraction knowledge, with a major focus on fraction magnitude understanding. This study included 120 fifth-grade students in standard classroom settings. Utilizing a cluster randomized controlled trial design, students were divided into either an intervention group (n = 64) or a control group

(n = 56). Students in the intervention condition received a series of seven 35-minute lessons. Students in the control condition received “treatment as usual”. Both post-test and delayed post-test results revealed that students in the intervention group performed significantly better than those in the control group on fraction concepts, with a stronger effect in measurement aspects compared to part-whole aspects. The intervention group also outperformed the control group on fraction arithmetic on both post-tests, while no significant difference was observed on fraction word problems.

Bratt Neuberg, E., & Andersson, G. (2023). Anorexia nervosa seen from a fathers’ perspectives: a thematic analysis. Mental Health Science, 1, 242–249.

Few studies have explored the views of fathers in relation to daughters diagnosed with anorexia nervosa (AN). The aim of this study was to investigate this aspect. This study was part of a larger study. Fourteen fathers (age 46–68 years) of 14 daughters (age 19–29 years) diagnosed with AN were interviewed between 1996 and 2002. The interview consisted of 15 open-ended questions exploring the views of fathers in relation to their daughters later diagnosed with AN. Following transcription, thematic analysis was used to identify main themes and subthemes based on the data. We identified three themes: “Family dynamic,” “Proximity and distance to the daughter,” and “Commitment and knowledge seeker,” and 10 subthemes. The fathers were involved during the upbringing and the relation to the daughter was important. Different studies show the importance of the paternal role for the daughter's healthy development, and for AN. Not sharing equally, the responsibility of early childrearing, could foster the experience of inadequacy regarding the paternal role in the future. In our study, the fathers considered the mothers to be the experts during the daughters' adolescence. This attitude could have hindered them from understanding their daughters' pathological eating problems. This and other studies indicate the importance of viewing the fathers as a resource when planning treatment approaches.

Bäck, M., & Lindqvist-Bagge, A-S.(2023) Interpersonell psykoterapi In A-S. Lindqvist Bagge & M. Hildebrand Karlén(Eds.), Handbok i missbruks- och beroendepsykologi (pp.231-235). Liber.

This chapter addresses the usefulness of Interpersonal Psychotherapy, IPT, in abuse and addiction treatment. More research is needed in this area. Based on the widespread comorbidity with various psychiatric conditions in this population, and the relational challenges of entering a drug-free life, IPT is presented here in ways to prepare the individual forward.

Cawthorne, T., Käll, A., Bennett, S., Baker, E., Andersson, G., & Shafran, R. (2023). The development and preliminary evaluation of Cognitive Behavioural Therapy (CBT) for chronic loneliness in young people. *Behavioural and Cognitive Psychotherapy*, *51*, 414-431.

Approximately 10% of young people 'often' feel lonely, with loneliness being predictive of multiple physical and mental health problems. Research has found CBT to be effective for reducing loneliness in adults, but interventions for young people who report loneliness as their primary difficulty are lacking. CBT for Chronic Loneliness in Young People was developed as a modular intervention. This was evaluated in a single-case experimental design (SCED) with seven participants aged 11-18 years. The primary outcome was self-reported loneliness on the Three-Item Loneliness Scale. Secondary outcomes were self-reported loneliness on the UCLA-LS-3, and self- and parent-reported RCADS and SDQ impact scores. Feasibility and participant satisfaction were also assessed. At post-intervention, there was a 66.41% reduction in loneliness, with all seven participants reporting a significant reduction on the primary outcome measure ($p < .001$). There was also a reduction on the UCLA-LS-3 of a large effect ($d = 1.53$). Reductions of a large effect size were also found for parent-reported total RCADS ($d = 2.19$) and SDQ impact scores ($d = 2.15$) and self-reported total RCADS scores ($d = 1.81$), with a small reduction in self-reported SDQ impact scores ($d = 0.41$). Participants reported high levels of satisfaction, with the protocol being feasible and acceptable. We conclude that CBT for Chronic Loneliness in Young People may be an effective intervention for reducing loneliness and co-occurring mental health difficulties in young people. The intervention should now be evaluated further through a randomised controlled trial (RCT).

Chukwuorji, J. C., Eze, P., Ugwuanyi, C. C., Onyedire, N. G., Nnadozie, E. E., & Garcia, D. (2023). Nigerian teachers' affective profiles and workplace behavior. In D. Garcia (Ed.), *The Affective Profiles Model: 20 Years of Research and Beyond* (pp. 245-267). Cham, Switzerland: Springer.

The teaching profession is considered as one of the most highly stressful professions. Indeed, teachers from many countries report high levels of stress and low levels of subjective well-being (e.g., low levels of positive affect and high levels of negative affect). In this context, a teachers' affective profile might be an indication of their vulnerability for falling into counterproductive workplace behavior or their ability to let go of transgressions at work (i.e., forgiveness). We aimed to investigate the association between teachers' affectivity (positive and negative affect) and workplace behavior. More specifically, we investigated if

Nigerian teachers with different affective profiles use distinct strategies when influencing their superiors (Study 1) and if they differ in forgiveness at work and counterproductive workplace behavior (Study 2). High negative affect was associated to individuals' tendency to, for example, spread rumors about someone to advance at work and other malevolent tendencies, only when positive affect was also high. On the other hand, independently of individuals' experience of high or low levels of negative affect, high levels of positive affect led to greater forgiveness toward offenders at work and to less counterproductive behavior. Likewise, independently of individuals' experience of high or low levels of positive affect, high levels of negative affect led to less forgiveness toward offenders at work and to more counterproductive behavior. Hence, subjective well-being interventions among teachers might help to create a better work climate for them, their colleagues, and their students.

Demetry, Y., Wasteson, E., *Lindegaard, T.*, Abuleild, A., Geranmaye, A., *Andersson, G.*, & Shahnava, S. (2023). Individually tailored and culturally adapted iCBT for arabic-speaking youth with mental health problems: A mixed methods pilot study in Sweden. *JMIR Formative Research*, 7, e46253.

Most forcibly displaced refugees in Sweden originate from the Arab Republic of Syria and Iraq. Approximately half of all refugees are aged between 15 and 26 years. This particular group of youths is at a higher risk for developing various mental disorders. However, low use of mental health services across Europe has been reported. Previous research indicates that culturally adapted psychological interventions may be suitable for refugee youths. However, little is known about the feasibility, acceptability, and efficacy of such psychological interventions. This study aimed to explore the feasibility, acceptability, and preliminary efficacy of an individually tailored and culturally adapted internet-based cognitive behavioral therapy for Arabic-speaking refugees and immigrant youths in Sweden. A total of 17 participants were included to participate in an open trial study of an individually tailored and culturally adapted internet-based cognitive behavioral therapy targeting common mental health problems. To assess the intervention outcome, the Hopkins Symptom Checklist was used. To explore the acceptability of the intervention, in-depth interviews were conducted with 12 participants using thematic analysis. Feasibility was assessed by measuring treatment adherence and by calculating recruitment and retention rates. The intervention had a high dropout rate and low feasibility. Quantitative analyses of the treatment efficacy were not possible because of the high dropout rate. The qualitative analysis resulted in 3 overarching categories: experiences with SahaUng (the treatment), attitudes toward psychological interventions, and personal factors important for adherence. The findings from this study indicate

that the feasibility and acceptability of the current intervention were low and, based on the qualitative analysis, could be increased by a refinement of recruitment strategies, further simplification of the treatment content, and modifications to the cultural adaptation.

Dumarkaite, A., Truskauskaite, I., Andersson, G., Jovarauskaite, L., Jovaisiene, I., Nomeikaite, A., & Kazlauskas, E. (2023). The efficacy of internet-based stress recovery intervention FOREST for healthcare staff amid COVID-19 pandemic: Randomized controlled trial. *International Journal of Nursing Studies*, 138, 104408.

The COVID-19 pandemic demanded exceptional physical and mental effort from healthcare workers worldwide. Since healthcare workers often refrain from seeking professional psychological support, internet-delivered interventions could serve as a viable alternative option. We aimed to investigate the effects of a therapist-guided six-week CBT-based internet-delivered stress recovery intervention among medical nurses using a randomized controlled trial design. We also aimed to assess program usability. A total of 168 nurses working in a healthcare setting (Mage = 42.12, SDage = 11.38; 97 % female) were included in the study. The intervention group included 77 participants, and the waiting list control group had 91 participants. Self-report data were collected online at three timepoints: pre-test, post-test, and three-month follow-up. The primary outcome was stress recovery. Secondary outcomes included measures of perceived stress, anxiety and depression symptoms, psychological well-being, posttraumatic stress and complex posttraumatic stress symptoms, and moral injury. We found that the stress recovery intervention FOREST improved stress recovery, including psychological detachment ($d = 0.83$ [0.52; 1.15]), relaxation ($d = 0.93$ [0.61, 1.25]), mastery ($d = 0.64$ [0.33; 0.95]), and control ($d = 0.46$ [0.15; 0.76]). The effects on psychological detachment, relaxation, and mastery remained stable at the three month follow-up. The intervention was also effective in reducing its users' stress ($d = -0.49$ [-0.80; -0.18]), anxiety symptoms ($d = -0.31$ [-0.62; -0.01]), depression symptoms ($d = -0.49$ [-0.80; -0.18]) and increasing psychological well-being ($d = 0.53$ [0.23; 0.84]) with the effects on perceived stress, depression symptoms, and well-being remaining stable at the three-month follow-up. High user satisfaction and good usability of the intervention were also reported. The present study demonstrated that an internet-based intervention for healthcare staff could increase stress recovery skills, promote psychological well-being, and reduce stress, anxiety, and depression symptoms, with most of the effects being stable over three months.

Ehlers, A., Wild, J., Warnock-Parkes, E., Grey, N., Murray, H., Kerr, A., Rozental, A., Thew, G., Janecka, M., Beierl, E. T., Tsiachristas, A., Perera-Salazar, R., Andersson, G., & Clark, D. M. (2023). Therapist-assisted online psychological therapies differing in trauma focus for post-traumatic stress disorder (STOP-PTSD): a UK-based, single-blind, randomised controlled trial. *Lancet Psychiatry*, *10*, 608-622.

Many patients are currently unable to access psychological treatments for post-traumatic stress disorder (PTSD), and it is unclear which types of therapist-assisted internet-based treatments work best. We aimed to investigate whether a novel internet-delivered cognitive therapy for PTSD (iCT-PTSD), which implements all procedures of a first-line, trauma-focused intervention recommended by the UK National Institute for Health and Care Excellence (NICE) for PTSD, is superior to internet-delivered stress management therapy for PTSD (iStress-PTSD), a comprehensive cognitive behavioural treatment programme focusing on a wide range of coping skills. We did a single-blind, randomised controlled trial in three locations in the UK. Participants (≥ 18 years) were recruited from UK National Health Service (NHS) Improving Access to Psychological Therapies (IAPT) services or by self-referral and met DSM-5 criteria for PTSD to single or multiple events. Participants were randomly allocated by a computer programme (3:3:1) to iCT-PTSD, iStress-PTSD, or a 3-month waiting list with usual NHS care, after which patients who still met PTSD criteria were randomly allocated (1:1) to iCT-PTSD or iStress-PTSD. Randomisation was stratified by location, duration of PTSD (< 18 months or ≥ 18 months), and severity of PTSD symptoms (high vs low). iCT-PTSD and iStress-PTSD were delivered online with therapist support by messages and short weekly phone calls over the first 12 weeks (weekly treatment phase), and three phone calls over the next 3 months (booster phase). The primary outcome was the severity of PTSD symptoms at 13 weeks after random assignment, measured by self-report on the PTSD Checklist for DSM-5 (PCL-5), and analysed by intention-to-treat. Safety was assessed in all participants who started treatment. Process analyses investigated acceptability and compliance with treatment, and candidate moderators and mediators of outcome. The trial was prospectively registered with the ISRCTN registry, ISRCTN16806208. Of the 217 participants, 158 (73%) self-reported as female, 57 (26%) as male, and two (1%) as other; 170 (78%) were White British, 20 (9%) were other White, six (3%) were Asian, ten (5%) were Black, eight (4%) had a mixed ethnic background, and three (1%) had other ethnic backgrounds. Mean age was 36.36 years (SD 12.11; range 18-71 years). 52 (24%) participants met self-reported criteria for ICD-11 complex PTSD. Fewer than 10% of participants dropped out of each treatment group. iCT-PTSD was superior to iStress-PTSD in reducing PTSD symptoms, showing an adjusted difference on the PCL-5 of -4.92 (95% CI -8.92 to -0.92; $p=0.016$;

standardised effect size $d=0.38$ [0.07 to 0.69]) for immediate allocations and -5.82 (-9.59 to -2.04; $p=0.0027$; $d=0.44$ [0.15 to 0.72]) for all treatment allocations. Both treatments were superior to the waiting list for PCL-5 at 13 weeks ($d=1.67$ [1.23 to 2.10] for iCT-PTSD and 1.29 [0.85 to 1.72] for iStress-PTSD). The advantages in outcome for iCT-PTSD were greater for participants with high dissociation or complex PTSD symptoms, and mediation analyses showed both treatments worked by changing negative meanings of the trauma, unhelpful coping, and flashback memories. No serious adverse events were reported. Trauma-focused iCT-PTSD is effective and acceptable to patients with PTSD, and superior to a non-trauma-focused cognitive behavioural stress management therapy, suggesting that iCT-PTSD is an effective way of delivering the contents of CT-PTSD, one of the NICE-recommended first-line treatments for PTSD, while reducing therapist time compared with face-to-face therapy.

Eimontas, J., Gegieckaitė, G., Asačiova, I., Stičinskaitė, N., Arcimavičiūtė, L., Savickaitė, D., Vaitiekūnaitė-Zubriakovienė, D., Polianskis, M., Gans, J., Beukes, E., Manchaiah, V., Andersson, G., & Lesinskas, E. (2023). Internet-delivered cognitive behavioral therapy for tinnitus compared to Internet-delivered mindfulness for tinnitus: a study protocol of a randomized controlled trial. *Trials*, 21, 382.

Tinnitus affects around 15% of the population and can be a debilitating condition for a sizeable part of them. However, effective evidence-based treatments are scarce. One recommended treatment for tinnitus is cognitive behavioral therapy which has been found to be effective when delivered online. However, more treatments including mindfulness-based interventions have been studied recently in an attempt to facilitate the availability of effective treatments. There are promising findings showing great effects in reducing tinnitus-induced distress and some evidence about the efficacy of such intervention delivered online. However, there is a lack of evidence on how these two treatments compare against one another. Therefore, the aim of this study will be to compare Internet-delivered cognitive behavioral therapy for tinnitus against an Internet-delivered mindfulness-based tinnitus stress reduction intervention in a three-armed randomized controlled trial with a waiting list control condition. This study will be a randomized controlled trial seeking to recruit Lithuanian-speaking individuals suffering from chronic tinnitus. The self-report measure Tinnitus Handicap Inventory will be used. Self-referred participants will be randomized into one of three study arms: Internet-delivered cognitive behavioral therapy, Internet-delivered mindfulness-based tinnitus stress reduction intervention, or a waiting-list control group. Post-treatment measures will be taken at the end of the 8-week-long intervention (or waiting). Long-term efficacy will be measured 3 and 12 months post-treatment. Internet-delivered interventions offer a range of

benefits for delivering evidence-based treatments. This is the first randomized controlled trial to directly compare Internet-delivered CBT and MBTSR for tinnitus in a non-inferiority trial.

Ekeblad, A., *Holmqvist, R., Andersson, G., & Falkenström, F.* (2023). Change in reflective functioning in interpersonal psychotherapy and cognitive behavioral therapy for major depressive disorder. *Psychotherapy Research, 33*, 342-349.

Patients with Major Depressive Disorder (MDD) have been found to have restricted capacity for mentalization, and it is possible that this constitutes a vulnerability factor for developing depression. Due to its focus on linking depressive symptomatology to emotions and interpersonal relations, it was hypothesized that Interpersonal Psychotherapy (IPT) would improve mentalization more than Cognitive Behavioral Therapy (CBT). In a randomized controlled trial of 90 patients undergoing IPT and CBT for MDD, Reflective Functioning (RF) was rated from Adult Attachment and from Depression-Specific Reflective Functioning (DSRF) Interviews before and after therapy. Treatment outcome was assessed using the Beck Depression Inventory-II. The interaction between time and treatment approach was statistically significant, with RF improving significantly more in IPT than in CBT. Change in RF was not correlated with change in depression. The difference in DSRF ratings before and after therapy was not statistically significant for any of the treatments. IPT may improve mentalization more than CBT. However, although RF increased significantly in IPT, the mean level was still low after therapy. A limitation of the study is the large amount of post-treatment missing data. More research is needed to understand the potential role of mentalization in symptom reduction.

Evertsson, M. & *Malmquist, A.* (2023). Division of care and leave arrangements in gay father families in Sweden. *Sexuality and Social Policy, 20*, 242–256.

This study analyses the division of parental leave and the income development in gay father families through surrogacy in Sweden, seen as one of the most family-friendly and egalitarian countries in the world. Based on longitudinal population register data, descriptive and bivariate regression models are estimated to analyse the parental leave uptake and income development of married partners becoming (first-time) parents in 2006–2015 (in total 53 couples). Retrospective in-depth interviews with 23 gay men in 12 couples, conducted in 2010 and 2018 are analysed thematically to study how fathers discussed and decided how to divide the leave. The process of establishing legal parenthood delays the fathers' access to reimbursed parental leave. Despite this, the fathers' earnings were not

considerably affected by the addition of a child to the family. Once the fathers had access to reimbursed leave, they generally shared this equally, with a tendency for the genetic father to take leave first and for a slightly longer period. The fathers becoming parents via surrogacy arrangements are a well-off group, able to counter the negative financial consequences of becoming parents. Swedish family policies enable parents to share the leave equally. Less impacted by gender and parenthood norms creating difference between parents, gay father families are in a better position to realise ideals of shared care and sameness. The delayed access to reimbursed parental leave structures the ability of gay couples to become parents and contributes to class inequalities in the transition to parenthood.

Fagher, K., *Dahlström, Ö., & Lexell, J.* (2023). Mental health, sleep, and pain in elite para athletes and the association with injury and illness - a prospective study. *PM&R*, 15, 1130–1139.

The interest in the health of Para athletes continues to increase. Still, there are few studies that have evaluated health parameters beyond injury and illness in this athlete population. The objectives were to assess (1) the weekly proportion of elite Para athletes reporting anxiety/depression, low sleep levels (≤ 7 hours), and pain over 52 weeks; (2) and to explore whether these health parameters are associated with the risk for a sports injury or illness. A 52-week prospective study, part of the Sports-related Injury and Illness in Paralympic Sport Study (SRIIPSS). A total of 107 Swedish elite Para athletes with physical, visual, and intellectual impairment participated. Data on self-reported anxiety/depression, sleep levels, pain, and injuries/illnesses were collected weekly. Comparisons of these parameters preceding an injury/illness were made using Friedman's analysis of variance (ANOVA). The proportion of athletes reporting weekly anxiety/depression was 34.1%; 60.9% of athletes reported sleeping ≤ 7 hours and 49.9% reported pain. In exploratory analyses, there were no significant differences between weeks before an injury for any of the variables. There were significant differences in levels of sleep over the weeks, where sleep levels were significantly higher (>10 hours) 4 weeks prior to an illness ($p = .016$). This cohort of elite Para athletes reported relatively high levels of anxiety/depression, low sleep levels, and pain, which is a concern. High sleep levels and the risk for illness might be an indication of overtraining, which commonly leads to persistent fatigue and an increased susceptibility to infections. Monitoring of the health of elite Para athletes is recommended to be able to improve performance and health in this population.

Forsblad, M., Lindblad, P., Arvola, M., Solís-Marcos, I., Danielsson, H., & Wiberg, M. (2023). How children with mild intellectual disability experience self-driving buses: In support of agency. Transactions on Transport Sciences, 14, 21-31.

Emerging technology for public transportation is often not fully aligned with an inclusive design strategy. Many people with intellectual disability experience their needs and desires not being fully considered. Responding to this problem, the purpose of this study is to investigate how children with mild intellectual disability experience self-driving buses. On each bus, a person called "safety driver" monitors the ride and takes control if a problematic situation arises. The purpose is also to investigate what roles support persons and safety drivers play. In addition, the research aims to propose improvements in how the design of these self-driving buses can better motivate children with intellectual disability to use them in support of their agency. To address this, we arranged and studied seven rides on self-driving buses, for 16 children diagnosed to have mild intellectual disability, and their support persons. Interviews with the children were held after the rides, and both the rides and interviews were video recorded. The analysis was in part inductive but also employed a theory based on motivation: self-determination theory. For several children, the bus worked as a vehicle for a social sightseeing tour of the local environment, and the current design did not hinder such an experience. Overall, many of the children had a positive experience, but there is room for improvement regarding the design of the buses. Some children expressed curiosity and a few frustrations with how the bus behaved in traffic. For instance, it was difficult for the children to understand why the bus braked for things that were hard for them to perceive. From observation, it appears that the accompanying support person and safety driver played an important role in making children safe and shaping the social environment on the bus. The support persons were also essential for some children to ride the bus at all. The safety driver provided the children with information about how the bus worked. Both the safety driver and the support person had a positive impact on the children's experience. To meet the children's needs and skills, and to improve their motivation for riding the buses again, the buses need to decelerate less abruptly, have easier and consistently designed seatbelts, and communicate what they do, see, and signal more clearly. We argue that further studies at this level of detail are crucial to ensure that new technologies are indeed designed for everyone.

Garcia, D. (2023). The affective profiles model: 20 years of research and beyond. Cham, Switzerland: Springer.

This volume provides an up-to-date exploration of the affective profiles model, a person-centered means of understanding the affective system. It presents the etiology underpinning the affective system and compares the model with other existing personality models, such as the Big Five Model, and Cloninger's Biopsychosocial Model. Most importantly, it examines the affective profiles model in relation to well-being, which includes life satisfaction, as well as psychological health. As such, it illuminates the problems of depression, anxiety, and sleep disorders. Based on a wealth of longitudinal and cross-cultural studies, this book offers a critical view of the affective profiles model that will enrich both further research and practice.

Garcia, D. (2023). The story of the affective profiles model: Theory, concepts, measurement, and methodology. In D. Garcia (Ed.), The Affective Profiles Model: 20 Years of Research and Beyond (pp. 3-23). Cham, Switzerland: Springer.

The affective profiles model is a person-oriented model of affectivity. In short, affectivity is a complex dynamic adaptive meta-system or a whole-system unit consisting of two independent but inter-related subsystems (positive affect and negative affect) that can be represented as, for example, four profiles: self-fulfilling (high positive affect, low negative affect), low affective (low positive affect, low negative affect), high affective (high positive affect, high negative affect), and self-destructive (low positive affect, high negative affect). During the past 20 years, an increasing number of studies have used this person-oriented model as the backdrop for the investigation of between- and within-individual differences in biological, psychological, and social constructs. As any other model, the affective profiles model is a simplification but useful representation of complex phenomena. In this Chapter, I briefly introduce the affective profiles model to disclose the framework in which the chapters of this volume were developed.

Garcia, D., & Adrianson, L. (2023). A mad max world or what about morality? Moral identity and subjective well-being in indonesia. In D. Garcia (Ed.), The Affective Profiles Model: 20 Years of Research and Beyond (pp. 111-125). Cham, Switzerland: Springer.

Global climate change is expected to significantly increase temperatures in Indonesia by 2030. Thus, the Indonesian people's physical, psychological, and social well-being is at stake. In such conditions, a self-transcendent moral identity is expected to promote adaptation and survival in harmony with the world around and to well-being. In this context, past studies in Western societies addressing affectivity as patterns of information within a complex adaptive system (i.e., profiles based on high/low positive/negative affect) have helped to discern which individuals might be able to regulate their subjective well-being and health even in difficult situations. The fact that moral identity is associated with personality traits that are strongly associated with subjective well-being indicates that individuals with distinct affective profiles (i.e., self-fulfilling, high affective, low affective, and self-destructive) should differ with regard to moral identity. Our aim was to investigate the association between moral identity and subjective well-being in the framework of the affective profiles model in an Indonesian convenience sample. At the general level, affectivity and moral identity were related to the social component of subjective well-being, harmony in life, rather than to its cognitive component, life satisfaction. High levels of positive affect seem to promote a high moral self-presentation, while high levels of negative affect in combination with high levels of positive affect might influence the individual to see these specific moral traits as disadvantageous. Even the results regarding life satisfaction partially supported that, in the Indonesian culture, individuals with a high affective profile seem to be at greater risk in the face of current and future challenges. Hence, in contrast to past studies in Western cultures, increases in negative affect, which is likely to happen under stressful situations during climate crises, might lead to low moral identity if the individual is high in positive affect.

Garcia, D., Cloninger, K. M., & Cloninger, C. R. (2023). Coherence of temperament and character drives personality change toward well-being in person-centered therapy. Current Opinion in Psychiatry, 36, 60-66.

People and communities around the world face many crises, including increasing burdens from disease, psychopathology, burn-out, social distrust, and acts of hate and terrorism. Personality disorder is arguably both a root cause and a consequence of these problems, creating a vicious cycle of suffering caused by fears, immoderate desires, and social distrust that are inconsistent with rational

goals and prosocial values. Fortunately, recent advances in understanding the biopsychosocial basis and dynamics of development in personality and its disorders offer insights to address these problems in effective person-centered ways. Fundamental advances have been made recently in the understanding of the psychobiology and sociology of personality in relationship to health, and in basic mechanisms of personality change as a complex process of learning and memory. Promotion of self-awareness and intentional self-control releases a strong tendency for people to seek coherence of their emotions and habits with what gives their life meaning and value. People have a strong drive to cultivate personalities in which their emotions and habits are reliably in accord with reasonable goals and prosocial values. Person-centered therapeutics provide practical ways to promote a virtuous cycle of increasing well being for individuals and their communities and habitats.

*Garcia, D., Kazemitabar, M., & Habibi, M. (2023). The 18-item Swedish version of Ryff's psychological well-being scales: Psychometric properties based on classical test theory and item response theory. *Frontiers in Psychology, 14*, 1208300.*

Psychological wellbeing is conceptualized as the full engagement and optimal performance in existential challenges of life. Our understanding of psychological wellbeing is important for us humans to survive, adapt, and thrive during the challenges of the 21st century. Hence, the measurement of psychological wellbeing is one cornerstone for the identification and treatment of both mental illness and health promotion. In this context, Ryff operationalized psychological wellbeing as a six-dimensional model of human characteristics: self-acceptance, positive relations with others, environmental mastery, personal growth, autonomy, and purpose in life. Ryff's Psychological Wellbeing Scale has been developed and translated into different versions. Here, we examine and describe the psychometric properties of the 18-item Swedish version of Ryff's Psychological Wellbeing Scale using both Classical Test Theory (CTT) and Item Response Theory (IRT). The data used in the present study was earlier published elsewhere and consists of 768 participants (279 women and 489 men). In addition to the 18-item version of the scale, participants answered the Temporal Satisfaction with Life Scale, the Positive Affect Negative Affect Schedule, and the Background and Health Questionnaire. We examined, the 18-item version's factor structure using different models and its relationship with subjective wellbeing, sociodemographic factors (e.g., education level, gender, age), lifestyle habits (i.e., smoking, frequency of doing exercise, and exercise intensity), and health issues (i.e., pain and sleeping problems). We also analyzed measurement invariance with regard to gender. Moreover, as an addition to the existing literature, we analyzed the properties of the 18 items using Graded Response Model (GRM). Although the original six-factor structure showed a good fit, both

CTT and IRT indicated that a five-factor model, without the purpose in life subscale, provided a better fit. The results supported the internal consistency and concurrent validity of the 18-item Swedish version. Moreover, invariance testing showed similar measurement precision by the scale across gender. Finally, we found several items, especially the purpose in life's item "I live life one day at a time and do not really think about the future," that might need revision or modification in order to improve measurement. A five-factor solution is a valid and reliable measure for the assessment of psychological wellbeing in the general Swedish population. With some modifications, the scale might achieve enough accuracy to measure the more appropriate and correct six-dimensional theoretical framework as detailed by Ryff. Fortunately, Ryff's original version contains 20 items per subscale and should therefore act as a perfect pool of items in this endeavor.

Garcia, D., Kazemitabar, M., Sanmartín, R., & MacDonald, S. (2023). Innovative methods for affectivity profiling: Latent profile analysis. In D. Garcia (Ed.), The Affective Profiles Model: 20 Years of Research and Beyond (pp. 49-65). Cham, Switzerland: Springer.

During the past 20 years, an increasing number of studies have used the affective profiles model as the backdrop for the investigation of between and within individual differences in various biological, psychological, and social constructs related to well-being and ill-being. In most of the literature, researchers use individuals' self-reported affectivity for profiling throughout three different approaches: (1) dividing scores into high and low in reference to the median, (2) cluster analysis, and (3) the rank order of each individual in a large sample from the general population (i.e., percentiles). Nevertheless, a less used approach has been the Latent Profile Analysis (LPA). In this Chapter, we investigated and verified the prevalence of the theorized affective profiles in a large adult population using LPA, mapped the prevalence of these affective profiles to gender and age, and investigated differences in life satisfaction and harmony in life. The LPA method successfully yielded a valid representation of the complex adaptive affectivity meta-system. For researchers who intend to use this method, we recommend the different fit indices used here to choose the best fitting model (1), to further validate the profiles in the chosen model by investigating between- and within-profiles differences in affectivity (2), to consider both age and gender (3), and to interpret any results in the context of cultural values that might influence the way individuals both pursue and experience emotions (4).

Garcia, D., & MacDonald, S. (2023). The (mis)measurement of the affective profiles model: should I split or should I cluster? In D. Garcia (Ed.), The Affective Profiles Model: 20 Years of Research and Beyond (pp. 25-48). Cham, Switzerland: Springer.

The affective profiles model, a representation of a person's affective experience and tendencies, consists of two independent but inter-related subsystems: positive affect (PA) and negative affect (NA). The model is person-oriented because it considers the complex nonlinear interaction of PA and NA as a whole-system unit or a meta-system rather than each subsystem separately. The interaction of the subsystems can be studied as patterns of information that represent the most common observed types or profiles, for example, self-fulfilling (high PA, low NA), low affective (low PA, low NA), high affective (high PA, high NA), and self-destructive (low PA, high NA). The question is then, which method can model the structures within the affectivity meta-system better? These structures are organized and function as patterns of operating subsystems and each subsystem derives its meaning from its relation to the other. Here we put to the test two of the most common methods for profiling, namely, median splits and cluster analysis. We can ascertain three relatively clear results: (1) the prevalence of different profiles was as expected with both methods but with a slight advantage for the median split method (3 of 4 confirmed predictions for the cluster analysis method vs. 4 of 4 for the median splits method); (2) none of the methods was able to confirm our predictions regarding gender, but there might be theoretical issues behind our expectations as well as methodological issues regarding the homogeneity within profiles and the heterogeneity between profiles generated by both methods; and (3) the methods' prediction certainty acts as mirror reflections of each other across populations and measures of well-being and ill-being. Hence, the verdict is still out, and the show must go on.

Garcia, D., Rosenberg, P., Stoyanov, D., & Cloninger, C. R. (2023). Affectivity in Bulgaria: Differences in life satisfaction, temperament, and character. In D. Garcia (Ed.), The Affective Profiles Model: 20 Years of Research and Beyond (pp. 127-143). Cham, Switzerland: Springer.

The affective profiles model allows the comparison between diametrically different individuals, but also the comparison within individuals who differ in one affectivity dimension but that are similar in the other. This line of research indicates that individuals with different affective profiles regulate their emotions in distinct ways in order to adapt their stress levels and achieve greater subjective well-being. Nevertheless, even if some studies among North Americans and Swedes suggest that personality may play a key role in this process, the

mechanism behind self-regulation within each profile is still poorly understood. We investigated differences in life satisfaction and personality traits (temperament and character) between individuals with distinct affective profiles in a population of Bulgarian adults. Besides replicating past studies regarding the relationship between personality and life satisfaction and affect, our study mapped the personality of individuals with different affective profiles throughout person-oriented analyses. This allowed us to understand more deeply the mechanisms behind self-regulation among individuals with distinct profiles. The development of some personality traits might influence a person's affective profile only under certain conditions or only in conjunction with the development of character traits.

Garcia, D., Ryberg, F., Nima, A. A. Amato, C., Schütz, E., Lindskär, E., & Rosenberg, P. (2023). The “cold case” of individual differences in organizational psychology: Learning climate and organizational commitment among police personnel. In D. Garcia (Ed.), The Affective Profiles Model: 20 Years of Research and Beyond (pp. 269-285). Cham, Switzerland: Springer.

Individuals' perception of their work climate is expected to strongly influence personnel's organizational commitment. However, the evidence about the association between organizational commitment and important outcomes, such as performance at work and turnover, is mixed. If this was not enough, little attention has been paid to how individual differences in basic personality (e.g., individual's affective profiles) moderate this relationship. In this context, police organizations have unique obstacles in terms of work climate and when striving to make their personnel genuinely committed to the organization. Our aim was to investigate the association between learning work climate and organizational commitment among police personnel using the affective profiles model as the framework of our study. We found that, at the general level, to be able to know which specific work climate factors will lead to an adaptive organizational commitment, police organizations and leaders need to be aware of employees' personality. At the practical level, the promotion of positive affect and the reduction of negative affect at work and life in general might help organizations to increase police personnel's sense of a good learning climate and their willingness to stay in the organization because they identify with the organization at an emotional, a psychological, and a social level.

Garcia, D., & Schütz, E. (2023). Differences in temperament and character among American and Swedes with distinct affective profiles. In D. Garcia (Ed.), The Affective Profiles Model: 20 Years of Research and Beyond (pp. 91-110). Cham, Switzerland: Springer.

Conceptualizing affect as two separate signal sensitivity subsystems, defined as high/low positive affect and high/low negative affect, implies that (A) the study of affectivity needs the interaction between these two dimensions in a complex adaptive meta-system composed of combinations beyond the two-system approach and that (B) this meta-system is associated to individual differences in personality dimensions that are responsible for automatic emotional reactions (i.e., temperament) and for conscious goals and values (i.e., character). The affective profiles model coined by Archer and colleagues is a good representation of the affectivity meta-system that has generated a great amount of research for the past 20 years. Nevertheless, most research addressing differences in personality has been conducted among children and adolescents. We aimed to replicate these past studies in two populations (Americans and Swedes) of adults by investigating differences in personality among individuals with distinct affective profiles. In this way, we want to expand our understanding of how the affectivity meta-system is regulated by automatic emotional responses (temperament) and conscious goals and values (i.e., character) across the lifespan and different cultures. Besides replicating past adolescent studies, throughout person-oriented analyses (i.e., matched comparisons), we deepened our understanding about how and in what conditions specific personality dimensions help us to regulate the affective meta-system. In short, temperament dimensions target most of the times one or both affective subsystems and character dimensions target most of the times both subsystems to bring optimal self-regulation.

Garcia, D., & Sikström, S. (2023). Innovative methods for affectivity profiling: quantitative semantics. In D. Garcia (Ed.), The Affective Profiles Model: 20 Years of Research and Beyond (pp. 67-88). Cham, Switzerland: Springer.

Affectivity has been suggested as a complex adaptive meta-system composed of positive affect and negative affect, two independent but interrelated markers of well-being, that can be represented as four distinct affective profiles: self-fulfilling (high positive affect/low negative affect), high affective (high positive affect/high negative affect), low affective (low positive affect/low negative affect), and self-destructive (low positive affect/high negative affect). This model has been extensively studied during the last two decades and operationalized through well-developed self-report inventories (e.g., the Positive Affect Negative

Affect Schedule, PANAS) that use fixed items and rating scales (e.g., 5-point Likert scales). However, this type of self-reports preimpose which feelings and emotions that are part of people’s affective experiences. In other words, they do not allow people to freely describe their own emotional well-being at all levels of health: physical, psychological, and social. In this Chapter, we use computational methods (i.e., quantitative semantics) to study how the meaning of words that people freely generate to describe their physical, psychological, and social well-being can be quantified to measure positive affect and negative affect. We then use these semantic estimates of affect for affectivity profiling. The “semantic” affective profiles were validated by (1) mapping them to people’s self-reported affectivity (i.e., PANAS-scores) and (2) by investigating which words significantly discriminate between individuals with distinct “semantic” affective profiles. We conclude that quantitative semantics is a promising method for affectivity profiling that should be further investigated. More specifically, the semantic estimates of affectivity derived from people’s own descriptions of their physical, psychological, and social well-being capture better the true nature of affect—after all, the affectivity dimensions involve more mood-related and social features and are not purely a measure of unconscious emotions or only certain emotions, but rather a conscious apprehension of the full range of our affective experience, which is an independent and interactive part of all well-being domains.

Grundström, H., Hollins Martin, C.J., *Malmquist, A.*, Nieminen, K. & Martin, C.R. (2023). Translation and validation of the Swedish version of the Birth Satisfaction Scale-Revised (BSS-R). *Midwifery*, *124*, 103745.

Optimizing women's childbirth experience is essential for development of quality mother infant relationships. The Birth Satisfaction Scale-Revised (BSS-R) can be used to measure birth satisfaction. The current investigation sought to translate and validate a Swedish version of the BSS-R. Following translation, a comprehensive psychometric validation of the Swedish-BSS-R (SW-BSS-R) was carried out using a multi-model, cross-sectional, between- and within-subjects design. A total of 619 Swedish-speaking women participated, from which 591 completed SW-BSS-R and were eligible for analysis. Discriminant, convergent, divergent and predictive validity, internal consistency, test-retest reliability, and factor structure were evaluated. The SW-BSS-R was found to have excellent psychometric properties and hence is a valid translation of the original UK(English)-BSS-R. Important insights into relationships between mode of birth, post-traumatic stress disorder (PTSD), and postnatal depression (PND) were observed. The SW-BSS-R is a psychometrically valid translation of the original BSS-R and is suitable for use in a Swedish-speaking population of women. The study has also highlighted important dynamics between birth

satisfaction and areas of significant clinical concern (i.e., mode of birth, PTSD and PND) in Sweden.

Grundström, H., Malmquist, A., Karlsson, A. & Nieminen, K. (2023). Previous trauma exposure and its associations to fear of childbirth and quality of life among pregnant lesbian, bisexual, transgender and queer people and their partners. *LGBTQ+ Family, 19*, 526-231.

Most studies of fear of childbirth (FOC) are conducted on heterosexual cisgender pregnant populations of birth-giving parents. Among lesbian and bisexual women, as well as transgender and queer people (LBTQ), minority stress can add an extra layer to FOC. Gender binary and cisnormative assumptions leave it to the patient to educate and navigate healthcare providers, which can increase mental health problems. The aim of this study is to compare FOC and mental illness among expecting birth-giving parents and their partners in an LBTQ population. This cross-sectional study recruited 80 self-identified pregnant LBTQ persons and their 54 non-pregnant partners at a LBTQ specialized antenatal clinic in a large Swedish city of over one million inhabitants. The survey included socio-demographic characteristics, sexual and gender orientation, obstetric history, previous mental health, previous trauma exposure and measures of FOC and mental health. Levels of FOC were significantly higher for the pregnant participants (median W-DEQ 67.5) than for partners (median W-DEQ 60.0). The proportion of severe FOC was higher for pregnant participants (20.3%) than for partners (9.4%), although this difference was not statistically significant. Mental illness was significantly associated with FOC. The results add valuable information to our understanding of the specific needs of pregnant LBTQ people and their partners and may help us to develop healthcare in the future.

Gürses, E., Beukes, E., Cesur, S., Andersson, G., & Manchaiah, V. (2023). A comparative study of readability, acceptability, and the adaptation of an Internet-based cognitive behavioral therapy for tinnitus. *Journal of International Advanced Otology, 19*, 182-190.

Internet-based cognitive behavioral therapy has shown effectiveness in managing chronic tinnitus. Internet-based cognitive behavioral therapy is currently available in only a few languages (English, Swedish, Spanish, and German). The current study aimed to adapt, evaluate, and compare the readability and acceptability of the Turkish internet-based cognitive behavioral therapy materials compared to previous versions. Internet-based cognitive behavioral therapy materials were adapted from the preexisting American English to the Turkish population in a 4-step process: (1) cultural adaptations, (2) acceptability adaptation of materials to the Turkish-speaking population, and (3) literacy-level

adjustments. Experts (n=11) and patients (n=11) rated the intervention materials and the ePlatform for acceptability, including usability, content, presentation, and suitability. Literacy-level adjustments generated acceptable and readability levels of the Turkish version of the internet-based cognitive behavioral therapy program. The average readability score was 76.15 ± 0.35 . The Turkish internet-based cognitive behavioral therapy (Mdn: 7.00) was statistically lower compared to the Swedish (Mdn: 9.00) but higher when compared to the American English and Spanish (Mdn: 5.00) versions. There were no statistical differences between the British English and Turkish versions in readability scores. Acceptability in the internet-based cognitive behavioral therapy platform was rated favorably. The Turkish internet-based cognitive behavioral therapy was found to be user-friendly and easy to understand, with navigations that are straightforward, have clear information, and are supported by audiologists. The readability score of the Turkish internet-based cognitive behavioral therapy is within recommended limits to ensure comprehensibility. We suggest that an online cognitive behavioral therapy program is adaptable for other languages for countries with a limited number of clinicians focused on cognitive behavioral therapy and tinnitus.

Habibi, M., Garcia, D., Jafari, F., Taghizadeh, M. A., & Etesami, M. S. (2023). Affective profiles, ethnic identity, and life satisfaction in Iran. In D. Garcia (Ed.), *The Affective Profiles Model: 20 Years of Research and Beyond* (pp. 225-244). Cham, Switzerland: Springer.

The affective profiles model has been used in several studies investigating individual differences in, for example, well-being and ill-being. The model categorizes individuals in four profiles based on the balance of high/low positive/negative affect: (1) self-fulfilling (high positive affect, low negative affect); (2) high affective (high positive affect, high negative affect); (3) low affective (low positive affect, low negative affect); and (4) self-destructive (low positive affect, high negative affect). Even though the affective profiles model is a model of specific personality dimensions related to life satisfaction and that identity is an important dimension of personality, not many studies have investigated differences in identity or culturally diverse samples using the model. This study examines differences in ethnic identity and life satisfaction using the notion of the affective profiles model as the framework for between and within individual differences in an Iranian sample. The results in the present study support the utility of the affective profiles model as a framework for individual differences with respect to ethnic identity and life satisfaction. For instance, while correlation analyses suggest a straightforward relationship, the model helped to discern in which conditions this can be expected. Moreover, our study also shows that the model is useful in middle eastern populations. As in Western societies, the self-fulfilling experience is denoted by higher levels of life satisfaction, but here we showed that it is also denoted by achieving a secure ethnic identity.

Hagberg, T., Manhem, P., Oscarsson, M., Michel, F., Andersson, G., & Carlbring, P. (2023). Efficacy of transdiagnostic cognitive-behavioral therapy for assertiveness: A randomized controlled trial. *Internet Interventions*, 32, 100629.

Assertiveness training has been an essential component in cognitive-behavioral therapy (CBT), for example, in the treatment of social anxiety and in dialectical behavioral therapy. However, the assertiveness construct has garnered little attention in recent clinical research. The objective of this study was to investigate the efficacy of an eight-week transdiagnostic stand-alone internet-based CBT intervention specifically aimed at increasing levels of assertive behavior. Following inclusion, we randomized $N = 210$ participants into three groups: therapist-guided self-help, unguided self-help, and a wait-list control condition. After a one-year follow-up, we employed a linear mixed model to estimate the effects at both post-test and follow-up for the primary outcome measures of assertiveness, Adaptive and Aggressive Assertiveness Scales, the Rathus Assertiveness Schedule, and secondary outcome measures of anxiety, depression, and general well-being. We also assessed reliable clinical change. Compared to the wait list at the post-treatment, estimated between-group effect sizes on self-rated adaptive assertiveness were statistically equivalent for the two treatment groups both at the post and at the one-year follow-up time points, ranging from $ES = 0.95$ to 1.73 , with reliable clinical recovery proportions from 19 % to 36 %. The increase in aggressive assertiveness ranged from $ES = 0.62$ to 0.90 compared to the wait-list condition at post. For social anxiety symptoms, the effects compared to the wait list at post-treatment ranged from $ES = 0.67$ to 0.93 , with a reliable clinical recovery rate from 16 % to 26 %. For self-assessed well-being, the effects compared to the wait list at post ranged from $ES = 0.70$ to 1.05 . No effects were observed for generalized anxiety, although within-group evidence was found for a medium effect on depression one year after treatment. Overall, the two treatment conditions produced similar effects. In general, participation increased healthy assertive expressions regardless of treatment condition, all the while reducing self-assessed social anxiety and, over time, possibly also depression. Participation also improved general well-being. The findings demonstrate that the assertiveness construct can be a suitable target for intervention, with reductions of both psychiatric symptoms and non-syndromal problems in daily life.

Halaj, A., Strauss, A. Y., Zalaznik, D., Fradkin, I., Zlotnick, E., Andersson, G., Ebert, D. D., & Huppert, J. D. (2023). Examining the relationship between cognitive factors and insight in panic disorder before and during treatment. *Cognitive Behaviour Therapy*, 52, 331-346.

Individuals with panic disorder (PD) often have impaired insight, which can impede their willingness to seek treatment. Cognitive processes, including metacognitive beliefs, cognitive flexibility, and jumping to conclusions (JTC) may influence the degree of insight. By understanding the relationship between insight and these cognitive factors in PD, we can better identify individuals with such vulnerabilities to improve their insight. The aim of this study is to examine the relationships between metacognition, cognitive flexibility, and JTC with clinical and cognitive insight at pretreatment. We investigate the association among those factors' changes and changes in insight over treatment. Eighty-three patients diagnosed with PD received internet-based cognitive behavior therapy. Analyses revealed that metacognition was related to both clinical and cognitive insight, and cognitive flexibility was related to clinical insight at pre-treatment. Greater changes in metacognition were correlated with greater changes in clinical insight. Also, greater changes in cognitive flexibility were related to greater changes in cognitive insight. The current study extends previous studies suggesting potential relationships among insight, metacognition, and cognitive flexibility in PD. Determining the role of cognitive concepts in relation to insight may lead to new avenues for improving insight and can have implications for engagement and treatment-seeking behaviors.

Hamatani, S., Matsumoto, K., Andersson, G., Tomioka, Y., Numata, S., Kamashita, R., Sekiguchi, A., Sato, Y., Fukudo, S., Sasaki, N., Nakamura, M., Otani, R., Sakuta, R., Hirano, Y., Kosaka, H., & Mizuno, Y. (2023). Guided internet-based cognitive behavioural therapy for women with bulimia nervosa: Protocol for multicentre randomised controlled trial in Japan. *JMIR Research Protocols*, 12, e49828.

Individual face-to-face cognitive behavioral therapy is known to be effective for bulimia nervosa (BN). Since foods vary considerably between regions and cultures in which patients live, cultural adaptation of the treatment program is particularly important in cognitive behavioral therapy for BN. Recently, an internet-based cognitive behavioral therapy (ICBT) program was developed for Japanese women with BN, adapted to the Japanese food culture. However, no previous randomized controlled trial has examined the effectiveness of ICBT.

This paper presents a research protocol for strategies to examine the effects of guided ICBT. This study is designed as a multicenter, prospective, assessor-blinded randomized controlled trial. The treatment groups will be divided into treatment as usual (TAU) alone as the control group and ICBT combined with TAU as the intervention group. The primary outcome is the total of binge eating and purging behaviors assessed before and after treatment by an independent assessor. Secondary outcomes will include measures of eating disorder severity, depression, anxiety, quality of life, treatment satisfaction, and working alliances. Treatment satisfaction and working alliances will be measured post assessment only. Other measures will be assessed at baseline, post intervention, and follow-up, and the outcomes will be analyzed on an intention-to-treat basis.

This study will be conducted at 7 different medical institutions in Japan from August 2022 to October 2026. Recruitment of participants began on August 19, 2022, and recruitment is scheduled to continue until July 2024. The first participants were registered on September 8, 2022. This is the first multicenter randomized controlled trial in Japan comparing the effectiveness of ICBT and TAU in patients with BN.

Hammar Chiriac, E., Forsberg, C., & Thornberg, R. (2023). Teachers' perspectives on factors influencing the school climate. Cogent Education, 10, 2245171

The aim of this study was to explore and analyse teachers' perspectives on factors influencing the school climate, to better understand teachers' everyday efforts in influencing the school climate, including obstacles they might experience. Bronfenbrenner's social-ecological theory was utilized as the overarching theoretical perspective. Data were collected by means of 14 semi-structured focus group interviews with 73 teachers from two compulsory schools in southeast Sweden. Findings revealed that teachers experienced the school climate as both positively and negatively influenced by a number of internal and external factors, perceived as influenceable or uninfluenceable. According to the teachers, four types of factors affected the quality of the school climate: social processes and values in school (i.e. influenceable internal factors), school premises and support structures (i.e. uninfluenceable internal factors, external relations (i.e. influenceable external factors) and external means of control (i.e. uninfluenceable external factors). A grounded theory of teachers' perceptions of factors influencing school were developed. Our conclusion is that the teachers talked about a multidimensional and malleable phenomenon, emanated by a complex interplay across multiple agents and contexts both within and outside the school, aligning with all domains and features and acting as preconditions for the school climate.

Hammar Chiriac, E., & Forslund Frykedal, K. (2023). Individual group work assessment in cooperative learning: Possibilities and challenges. In R. Gillies, N.A. Davidson & B. Mills (Eds.) Contemporary Global Perspectives on Cooperative Learning Applications Across Educational Contexts (94–108). Routledge.

Combining individual group work assessment with expectations of collaboration and shared learning can be seen as a paradox. In this chapter we explore and problematise whether it is possible to combine cooperative learning, an approach that has great potential to contribute to joint knowledge development between students, with teacher's curricula knowledge requirements to assess student knowledge and abilities individually. The latter can create competition between the students. We propose adding a further dimension of contemporary global perspectives on cooperative learning in education by increasing knowledge about what happens in the meeting between cooperative learning and individual group work assessment. We will address some salient possibilities and challenges regarding individual group work assessment based on theory and research, but primarily we will discuss results from our group work assessment intervention project. We will also contribute by noting some practical implications presented as recommendations for teachers who employ the assessment practice when using cooperative learning.

Hedman-Lagerlöf, E., Carlbring, P., Svärdman, F., Riper, H., Cuijpers, P., & Andersson, G. (2023). Therapist-supported Internet-based cognitive behaviour therapy yields similar effects as face-to-face therapy for psychiatric and somatic disorders: an updated systematic review and meta-analysis. *World Psychiatry, 25*, 305-314.

Providing therapist-guided cognitive behaviour therapy via the Internet (ICBT) has advantages, but a central research question is to what extent similar clinical effects can be obtained as with gold-standard face-to-face cognitive behaviour therapy (CBT). In a previous meta-analysis published in this journal, which was updated in 2018, we found evidence that the pooled effects for the two formats were equivalent in the treatment of psychiatric and somatic disorders, but the number of published randomized trials was relatively low (n=20). As this is a field that moves rapidly, the aim of the current study was to conduct an update of our systematic review and meta-analysis of the clinical effects of ICBT vs. face-to-face CBT for psychiatric and somatic disorders in adults. We searched the PubMed database for relevant studies published from 2016 to 2022. The main inclusion criteria were that studies had to compare ICBT to face-to-face CBT using a randomized controlled design and targeting adult populations. Quality assessment was made using the Cochrane risk of bias criteria (Version 1), and the

main outcome estimate was the pooled standardized effect size (Hedges' g) using a random effects model. We screened 5,601 records and included 11 new randomized trials, adding them to the 20 previously identified ones (total $n=31$). Sixteen different clinical conditions were targeted in the included studies. Half of the trials were in the fields of depression/depressive symptoms or some form of anxiety disorder. The pooled effect size across all disorders was $g=0.02$ (95% CI: -0.09 to 0.14) and the quality of the included studies was acceptable. This meta-analysis further supports the notion that therapist-supported ICBT yields similar effects as face-to-face CBT.

Holmqvist Larsson, K., Thunberg, M., Münger, A.-C., Andersson, G., Falkenström, F., & Zetterqvist, M. (2023). "It's ok that I feel like this": A qualitative study of adolescents' and parents' experiences of facilitators, mechanisms of change and outcomes in a joint emotion regulation group skills training. *BMC Psychiatry*, 23, 591.

Emotion regulation difficulties underlie several psychiatric conditions, and treatments that focus on improving emotion regulation can have an effect on a broad range of symptoms. However, participants' in-depth experiences of participating in emotion regulation treatments have not been much studied. In this qualitative study, we investigated participants' experiences of a joint emotion regulation group skills training in a child and adolescent psychiatric outpatient setting. Twenty-one participants (10 adolescents and 11 parents) were interviewed about their experiences after they had participated in a seven-session transdiagnostic emotion regulation skills training for adolescents and parents. The aim of the skills training was to decrease emotion regulation difficulties, increase emotional awareness, reduce psychiatric symptoms, and enhance quality of life. The skills training consisted of psychoeducation about emotions and skills for regulating emotions. The interviews were transcribed and analysed using reflexive thematic analysis. The analysis resulted in three overarching themes: Parent - Child processes, Individual processes, and Group processes. The result showed that participants considered an improved parent-child relationship to be the main outcome. Increased knowledge, emotion regulation skills and behavioural change were conceptualised as both mechanisms of change and outcomes. The group format, and the fact that parents and adolescents participated together, were seen as facilitators. Furthermore, the participants experienced targeting emotions in skills training as meaningful and helpful. The results highlight the potential benefits of providing emotion regulation skills training for adolescents and parents together in a group format to improve the parent-child relationship and enable the opportunity to learn skills.

Jacobsson, J., Kowalski, J., Timpka, T., Hansson, P.-O., Spreco, A., & Dahlström, Ö. (2023). Universal prevention through a digital health platform reduces injury incidence in youth athletics (track and field): a cluster randomised controlled trial. *British Journal of Sports Medicine*, 57, 364–371.

The objective was to examine whether universal prevention via a digital health platform can reduce the injury incidence in athletics athletes aged 12-15 years and if club size had an influence on the effect of the intervention. This was a cluster randomised trial where young athletics athletes were randomised through their club following stratification by club size into intervention (11 clubs; 56 athletes) and control (10 clubs; 79 athletes) groups. The primary endpoint was time from baseline to the first self-reported injury. Intervention group parents and coaches were given access to a website with health information adapted to adolescent athletes and were encouraged to log in and explore its content during 16 weeks. The control group continued training as normal. Training exposure and injury data were self-reported by youths/parents every second week, that is, eight times. The primary endpoint data were analysed using the log-rank test. Cox proportional hazards regression was used to analyse the second study aim with intervention status and club size included in the explanatory models. The proportion of completed training reports was 85% (n=382) in the intervention group and 86% (n=545) in the control group. The injury incidence was significantly lower (HR=0.62; $\chi^2=3.865$; p=0.049) in the intervention group. The median time to first injury was 16 weeks in the intervention group and 8 weeks in the control group. An interaction effect between the intervention and stratification factor was observed with a difference in injury risk between athletes in the large clubs in the intervention group versus their peers in the control group (HR 0.491 (95% CI 0.242 to 0.998); p=0.049). A protective effect against injury through universal access to health information adapted for adolescent athletes was observed in youth athletics athletes. The efficacy of the intervention was stronger in large clubs.

Jacobsson, J., Mirkovic, D., Hansson, P.-O., Lundqvist, C., Mann, R., Tranaeus, U. (2023). Youth athletes at athletics sports high schools (track and field) emphasize the need for environmental support for injury management. A focus group study. *BMJ Open Sport & Exercise Medicine*, 9, e001527.

In this study, we examined knowledge and understanding of sport-related injuries among youth athletics (track and field) athletes and assessed their needs in managing any health problems. Qualitative data were collected via 12 focus groups with youth athletes (16–19 years) studying at Swedish sports high schools

with an athletics specialism. All focus group discussions were audiorecorded and transcribed before being analysed using a thematic analysis approach. Four researchers independently reviewed the transcripts, generated codes and developed themes. Three overarching themes related to the athletes' knowledge and understanding of sport-related injury were developed: (1) awareness of injuries, (2) perception of injuries, and (3) factors contributing to injuries. The youth athletes were typically uncertain about how to acknowledge a sport-related injury. They expressed that knowledge about injuries was obtained in part by reflecting on the lived experiences of their peers. It was also demonstrated that there appears to be a 'culture of acceptance' regarding injury occurrence. In contrast, causes of injuries were viewed as dependent on multiple factors (eg, lack of context-specific knowledge about training practices). Regarding athletes' needs in managing injuries, an additional three themes were developed: (1) creating functioning elite sports environments, (2) application of knowledge and (3) fostering athletes. An apparent lack of structure and organisation related to the school environment was identified as an important issue to review to create opportunities for sustainable athletic development. The study identified areas that can be improved in Swedish sports high schools with an athletic specialism and could be applied in other youth sports contexts. The results of this study guide school stakeholders, alongside the sport governing bodies who have the mandate to influence activities in youth sports contexts, whereby special attention should be directed towards improving the social environment for youth athletes.

Jakobsson Støre, S., Tillfors, M., Wästlund, E., Angelhoff, C., Andersson, G., & Norell-Clarke, A. (2023). The effects of a sleep robot intervention on sleep, depression and anxiety in adults with insomnia – A randomized waitlist-controlled trial. *Journal of Sleep Research*, 32, e13758.

The study objective was to assess if a 3-week intervention with the Somnox sleep robot had effects on symptoms of insomnia, somatic arousal, and/or concurrent symptoms of depression and anxiety in adults with insomnia, compared with a waitlist-control group. The participants (n = 44) were randomized to a 3-week intervention with the sleep robot (n = 22), or to a waitlist-control group (n = 22). The primary outcome measure was the Insomnia Severity Index administered at baseline, mid-intervention, post-intervention and at 1-month follow-up. Secondary outcome measures were the Pre-Sleep Arousal Scale, and the Hospital Anxiety and Depression Scale. Additionally, sleep-onset latency, wake time after sleep onset, total sleep time and sleep efficiency were measured the week prior to and the last week of the intervention, both subjectively with the Consensus Sleep Diary and objectively with wrist actigraphy. Mixed-effects models were used to analyse data. The effect of the sleep robot on the participants' insomnia

severity was not statistically significant. The differences between the intervention group and the control group on the measures of arousal, anxiety and depression were also not statistically significant, and neither were the sleep diary and actigraphy variables. In conclusion, a 3-week intervention with daily at-home use of the robot was not found to be an effective method to relieve the symptom burden in adults with insomnia.

Jakobsson Støre, S., Tillfors, M., Wästlund, E., Angelhoff, C., Andersson, G., & Norell Clarke, A. (2023). Mind, body and machine: Preliminary study to explore predictors of treatment response after a sleep robot intervention for adults with insomnia. *Nature and Science of Sleep*, 15, 567–577.

The study aimed to explore characteristics of responders to a sleep robot intervention for adults with insomnia, and the likelihood that participants responded to the intervention. Data from the intervention and the control group in a randomized waitlist-controlled trial ($n = 44$) were pooled together after both had undergone the intervention. A repeated measures ANOVA and Friedman tests were used to explore changes over time. Differences in baseline characteristics between responders ($n = 13$), defined as a reduction of -5 on the Insomnia Severity Index from pre- to post-intervention, and non-responders ($n = 31$) were analyzed with t-tests and chi-square tests. Finally, logistic regression models were estimated. Baseline anxiety was the only statistically significant difference between responders and non-responders ($p = 0.03$). A logistic regression model with anxiety and sleep quality as predictors was statistically significant, correctly classifying 83.3% of cases. The results imply that people with lower anxiety and higher sleep quality at baseline are more likely to report clinically significant improvements in insomnia from the sleep robot intervention.

Jensen, M., Alanis, J. C. G., Hüttenrauch, E., Winther-Jensen, M., Lynn-Chavanon, M., Andersson, G., & Weise, C. (2023). Does it matter what is trained? A randomized controlled trial evaluating the specificity of alpha/delta ratio neurofeedback in reducing tinnitus symptoms. *Brain Communications*, 5, fcad185.

Previous studies showed that alpha/delta ratio neurofeedback was effective in reducing unpleasant psychological, emotional and perceptual consequences of tinnitus. The main goal of the present study was to investigate, whether the specific combination of enhancing alpha frequency band activity and reducing delta frequency band activity was necessary, or merely sufficient, to obtain a positive treatment outcome regarding tinnitus distress and intensity. A second

research aim was to assess the relative contribution of neurofeedback-related non-specific and general non-specific effects in neurofeedback treatment. In a three-arm, randomized controlled trial, 94 chronic tinnitus patients were randomly assigned to one of three conditions: alpha/delta ratio neurofeedback (n = 31), beta/theta ratio neurofeedback (n = 28) and non-neurofeedback minimal treatment intervention (n = 35). Neurofeedback participants underwent 10 treatment sessions over a 4-week period. Outcome measures were collected pre-, mid- and post-interventions and at 3-months follow-up. The Tinnitus Handicap Inventory and the Tinnitus Magnitude Index were used as primary outcome measures for tinnitus distress and tinnitus intensity. EEG data recorded during training supplemented primary outcomes. Since data were repeated measures, the analyses used a two-level mixed effects model approach including by-subject random effects (random intercept). For the Tinnitus Handicap Inventory, the results showed no interaction effect. For the Tinnitus Magnitude Index, the analysis showed a significant time \times group interaction, indicating that both alpha/delta ratio neurofeedback and beta/theta ratio neurofeedback reported reduced tinnitus intensity. Analysis of EEG data showed a consistent pattern for the alpha/delta ratio over the course of training. Compared to beta/theta ratio neurofeedback, alpha/delta ratio neurofeedback showed an elevated response. Conversely, for the beta ratio to theta ratio, the pattern was more inconsistent, with no clear indication of superiority for beta/theta ratio neurofeedback over alpha/delta ratio neurofeedback. The main question of this piece of research was whether alpha/delta ratio neurofeedback demonstrated frequency band specificity in the alleviation of tinnitus distress and perceived intensity. Results showed that alpha/delta ratio neurofeedback was sufficient but importantly 'not' necessary to achieve a positive outcome on both the Tinnitus Handicap Inventory and Tinnitus Magnitude Index, when compared to beta/theta ratio neurofeedback. Still, the data suggest a trend towards specificity for alpha/delta ratio neurofeedback. Because of this, it may be too premature to discard alpha/delta ratio neurofeedback in the treatment of tinnitus. Recommendations for future studies are outlined.

Johles, L., Norell-Clarke, A., *Lundqvist, C.*, Janson-Fröjmark, M., & Mehlig, K. (2023). A brief mindfulness and sleep intervention with Swedish adolescent athletes. *Mindfulness, 14*, 1522–1530.

The aim of the study was to compare the effects of a brief body scan with relaxation as an active control group to better understand their respective contributions to the reduction of sleep problems and anxiety symptoms among adolescent athletes. Two hundred and six adolescent athletes were recruited during the school year 2016/2017 and randomized into four arms: 4 weeks body scan, 8 weeks body scan, 4 weeks relaxation, and 8 weeks relaxation. Sleep problems and anxiety were measured at baseline and 4, 8, and 16 weeks after

baseline. Time trends in sleep problems and anxiety were estimated using linear repeated measures models and compared between the four groups. Overall, there were beneficial time changes for sleep problems and anxiety symptoms in all four intervention groups, but significantly so only for anxiety symptoms. Specifically, the reduction of anxiety symptoms varied between – 11% per month for 8 weeks body scan, – 12% per month for 8 weeks relaxation, – 13% per month for 4 weeks relaxation, and – 16% per month for 4 weeks body scan. However, the time trends did not differ by intervention type or duration. Both types of interventions had beneficial effects on anxiety independent of length of intervention, suggesting that a brief body scan as well as a brief relaxation could be part of a daily recovery practice for adolescent athletes.

Karlsson, H., Asutay, E., & Västfjäll, D. (2023). A causal link between mental imagery and affect-laden perception of climate change related risks. Scientific Reports, 13, 10081.

Previous studies have shed light on the importance of affect in risk perception and the role of mental imagery in generating affect. In the current study, we explore the causal relationship between mental imagery, affect, and risk perception by systematically varying the level of mental imagery in three levels (i.e., enhanced, spontaneous, or prevented). In light of the increasing environmental risk of adverse events caused by climate change, we operationalize risk as participants' perceived risk of climate change. One-thousand-fifty-five participants were recruited online and randomized to one of three levels of mental imagery. As predicted, we found a causal link between the level of mental imagery, affective experience, and perceived risk of climate change, in that enhanced mental imagery caused a larger decrease in positive affective valence and a larger increase in perceived risk of climate change. We argue that mental imagery enhances the negative affect associated with the risk event by creating a perceptual experience that mimics seeing the environmental risk events.

Keevallik, L., Hofstetter, E., Weatherall, A., & Wiggins, S. (2023). Sounding others' sensations in interaction. Discourse Processes, 60, 73-91.

This study investigates the practice of “sounding for others,” wherein one person vocalizes to enact someone else’s putatively ongoing bodily sensation. We argue that it constitutes a collaborative way of performing sensorial experiences. Examples include producing cries with others’ strain or pain and parents sounding an mmm of gustatory pleasure on their infant’s behalf. Vocal sounds, their loudness, and duration are specifically deployed for instructing bodily experiences during novices’ real-time performance of various activities, such as

tasting food for the first time or straining during a Pilates exercise. Vocalizations that are indexically tied to the body provide immediate displays of understanding and empathy that may be explicated further through lexicon. The existence of this practice challenges the conceptualization of communication as a transfer of information from an individual agent – even regarding assumedly individual body sensations – instead providing evidence of the joint nature of action and supporting dialogic theories of communication, including when language-marginal vocalizations are used.

Kheirkhah, M. T., Mokarrami, M., Kazemitabar, M., & Garcia, D. (2023). Inequalities in care for Iranian women suffering from the comorbidity of substance use and mental illness: The need for integrated treatment. *Health Promotion Perspectives, 13*, 198-201.

This paper addresses the comorbidity of substance use and mental illness among women in Iran and the barriers they encounter in accessing treatment. Research has demonstrated a higher prevalence of comorbidity of substance use disorders and mental illness among women than men. It has been suggested that women in Iran may face numerous barriers to appropriate care, such as stigma and discrimination associated with substance use. Integrated treatment for co-occurring disorders (CODs) has been highly beneficial and effective; however, personal and structural limitations impede this treatment approach, which explains the need to develop a situation- and culture-specific program. Needs assessment is necessary to achieve an integrated treatment, and the Iranian government should take the lead in this endeavor. However, if this seems unlikely, non-governmental organizations could be called upon to promote it.

Klittmark, S., Malmquist, A., Karlsson, G., Ulfsdotter, A., Grundström, H., & Nieminen, K. (2023). When complications arise during birth: LBTQ people's experiences of care. *Midwifery, 121*, 103649.

To explore the care experiences of lesbian, bisexual, transgender, and queer (LBTQ) people during births where complications have arisen. Data were collected through semi-structured interviews with self-identified LBTQ people who had experienced obstetrical and/or neonatal complications. Interviews were conducted in Sweden. A total of 22 self-identified LBTQ people participated. 12 had experienced birth complications as the birth parent and ten as the non-birth parent. Most participants had felt invalidated as an LBTQ family. Separation of the family due to complications elevated the number of hetero/cisnormative assumptions, as new encounters with healthcare professionals increased. Dealing with normative assumptions was particularly difficult in stressful and vulnerable situations. A majority of the birth parents experienced disrespectful treatment

from healthcare professionals that violated their bodily integrity. Most participants experienced lack of vital information and emotional support, and expressed that the LBTQ identity made it harder to ask for help. Disrespectful treatment and deficiencies in care contributed to negative experiences when complications arose during birth. Trusting care relationships are important to protect the birth experience in case of complications. Validation of the LBTQ identity and access to emotional support for both birth and non-birth parents are crucial for preventing negative birth experiences. To reduce minority stress and create conditions for a trusting relationship, healthcare professionals should specifically validate the LBTQ identity, strive for continuity of carer and zero separation of the LBTQ family. Healthcare professionals should make extensive efforts to transfer LBTQ related information between wards.

Kristiansen, E., & Lundqvist, C. (2023). Forberedels til store mesterskap under en pandemi: Survival of the fittest. I T. Dille, E. Kristiansen, & O. Boe (Red.). *Eventer i en ny tid: Idrett, eventledelse og beredskap* (52–68). Universitetsforlaget.

The Tokyo Summer Olympics 2020 were postponed by a year due to Covid-19. This postponement came as a surprise to both athletes and support staff. How did the pandemic affect the Olympic preparations and the mental health of the athletes? Twelve athletes, both Norwegian and Swedish medal candidates from nine sports, were interviewed. Norwegian and Swedish athletes had different training options, but they tried to adapt as best they could to current situations and what they were allowed to do. This resulted in different set of goals as they adapted to the conditions.

Koppel, L., Andersson, D., Tinghög, G., Västfjäll, D., & Feldman, G. (2023). We are all less risky and more skillful than our fellow drivers: Successful replication and extension of Svenson (1981). *Meta-Psychology*, 7, MP.2021.2932

The better-than-average effect refers to the tendency to rate oneself as better than the average person on desirable traits and skills. In a classic study, Svenson (1981) asked participants to rate their driving safety and skill compared to other participants in the experiment. Results showed that the majority of participants rated themselves as far above the median, despite the statistical impossibility of more than 50% of participants being above the median. We report a preregistered, well-powered (total N = 1,203), very close replication and extension of the Svenson (1981) study. Our results indicate that the majority of participants rated their driving skill and safety as above average. We added different response scales

as an extension and findings were stable across all three measures. Thus, our findings are consistent with the original findings by Svenson (1981).

Kvist, J., Bengtsson, J., & Lundqvist, C. (2023). The experience and influence of fear after anterior cruciate ligament reconstruction – an interview study with young athletes. *BMC Sports Science, Medicine and Rehabilitation*, 15, 50.

Despite good physical function, many athletes do not return to sports after an anterior cruciate ligament reconstruction (ACLR). One important reason for this is fear of new injury. The aim of this study was to investigate young athletes' experiences of knee-related fear after an ACLR and how they perceive this fear to affect them in their sporting and everyday life. A qualitative interview study was conducted, using semi-structured interviews. Athletes who were active in contact or pivoting sport before an ACL injury, with the goal of returning to the same sport and who scored highly on fear of new injury at six months post-ACLR, were asked to participate. Ten athletes (six women and four men, aged 17-25 years), were interviewed by an independent researcher, 7-9 months after ACLR. Content analysis employing an abductive approach was used. The analysis resulted in three categories with associated subcategories: 1. The expressions of fear; (i) reason for fear, (ii) changes in fear over time, and (iii) injury situation. 2. Reactions, consequences, and adaptations; (i) reactions, (ii) behavioural adaptation and influence on rehabilitation and daily life, (iii) present consequences, and (iv) consequences for the future. 3. Fear and adaptations related to returning to sports; (i) fear related to returning to sports and, (ii) adaptations in sports and life due to fear. Fear was described in broad and complex ways, with fear of a new injury being expressed as one of several aspects. Various reasons (e.g., seeing others getting injured in the past, previous experience of injury, failed rehabilitation, perceived knee instability) were given to explain the fear, and athletes reacted both physically and mentally to fear. Both positive and negative adaptations to fear were described, in both daily life and sports. The results contribute to an increased understanding of fear as an essential psychological factor to consider during rehabilitation and leaves the way open for research to investigate how physiotherapists can work to manage fear better among ACLR patients.

Käll, A., & Andersson, G. (2023). Knowledge acquisition following internet-based cognitive behavioural therapy for loneliness – A secondary analysis of a randomised controlled trial. Journal of Behavior Therapy and Experimental Psychiatry, 81, 101872.

Knowledge about a condition and how to treat it is part of most cognitive behavioural therapies. This is particularly relevant for self-help treatments such as internet-based CBT, which is commonly delivered in the form of didactic materials. The role of knowledge acquisition in treatment outcomes is an understudied area. The present study sought to investigate knowledge acquisition as part of an ICBT trial targeting loneliness and discern its role in the outcome of treatment. We used secondary data from a randomised controlled trial of ICBT targeting loneliness with 73 participants. A knowledge test including certainty ratings was constructed and used to investigate whether knowledge increased for the treatment group in comparison to the control group, whether changes in knowledge predicted changes in loneliness during the treatment phase, and how the acquired knowledge related to outcomes at a two-year follow-up. Multiple linear regression models were used to analyse the data. The treatment group had significantly higher knowledge scores compared to the waitlist group at posttreatment, both in terms of correct answers (Cohen's $d = 0.73$) and certainty-weighted sum scores (Cohen's $d = 1.20$). Acquired knowledge did not predict reductions in loneliness in the short-term, and neither loneliness ratings nor use of treatment techniques in the long-term. The sample size was relatively small, which limits the statistical inferences. Knowledge of treatment relevant principles increase as part of the treatment in ICBT for loneliness. This increase was not related to other short- and long-term outcomes.

Käll, A., & Andersson, G. (2023). Internet-based cognitive behavioral therapy for loneliness. In C. Martin, V. Patel, & V. Preedy (Eds.), Handbook of cognitive behavioral therapy by disorder (pp. 175-183): Academic Press.

In this chapter we describe the development and evaluation of guided internet-based treatment to alleviate loneliness.

Käll, A., Olsson Lynch, C., Sundling, K., Furmark, T., Carlbring, P., & Andersson, G. (2023). Scheduled support versus support on demand in internet-delivered cognitive behavioral therapy for social anxiety disorder: Randomized controlled trial. *Clinical Psychology in Europe*, 5, e11379.

Clinician-supported internet-delivered cognitive behavioral therapy (ICBT) can be an effective treatment option when treating social anxiety disorder (SAD). Unguided ICBT is often found to be less effective. One possible solution to reduce the costs of clinician support is to provide support on demand. In this format of guidance, participants have the option to contact their clinician if needed. In a few studies, this mode of support has been compared favorably to scheduled support. Participants in a previously reported controlled trial on SAD who had been in a waitlist control group were randomly allocated to ICBT with either on-demand guidance or scheduled weekly therapist guidance. A total of 99 participants were included. Data were collected weekly on the primary outcome measure, the Liebowitz Social Anxiety Scale self-report (LSAS-SR), and at pre- and post-treatment for secondary measures. Data were analyzed in accordance with the intention-to-treat principle using mixed-effects models. Both groups improved significantly during the treatment according to the LSAS-SR ratings. The groups did not differ in their estimated change during the treatment period, with a between-group effect of $d = 0.02$, 95% CI [-0.37, 0.43]. Both groups experienced similar improvement also on the secondary outcome measures, with small between-group effect sizes on all outcomes. The findings indicate that support on demand can be an effective way of providing guidance in ICBT for SAD, although more research on this topic is needed. A limitation of the study is that it was conducted in 2009, and the findings were in the file drawer. Subsequent published studies support our initial findings, but more research is needed.

Larsson, J., Bjureberg, J. & Hesser, H. (2023). Anger profiles among individuals seeking treatment for maladaptive anger: Associations with emotion regulation. *Clinical Psychology and Psychotherapy*, 30, 599-610.

Individuals who experience problems with anger represent a heterogeneous group. Identifying clinically relevant subtypes of anger may advance treatment research. In the current study, latent profile analysis (LPA) was conducted to explore if distinct subtypes of anger could be identified within a sample of individuals seeking treatment for maladaptive anger (N = 538; 55.4% females; mean age = 39.78, SD = 12.28). Furthermore, the utility of the empirical classification was examined based on differences in usage of emotion regulation strategies (cognitive reappraisal, expressive suppression, mindful emotion

awareness and relaxation) across subtypes. Four anger profiles were identified in the best-fitted LPA model: Low Anger (n = 153, 28.4%), Anger In (n = 91, 16.9%), Moderate Anger (n = 193, 35.9%) and High Anger (n = 101, 35.5%). Results from the multinomial regression revealed that the use of emotion regulation differed across all profiles. Participants from the High Anger and Anger In profiles exhibited distinct patterns of dysfunctional emotion regulation. The results add to the increasing amount of evidence demonstrating a link between emotion regulation strategies and maladaptive anger. Clinical implications on how to tailor treatments for individuals with maladaptive anger are discussed.

Liebech-Lien, B., Hammar Chiriac, E., & Davidson, N. (2023). Teachers' professional development for cooperative learning: A constructive controversy between long-term versus short-term professional development. *Autonomy and Responsibility Journal of Educational Sciences*, 8, 65–82.

Previous scientific research has recognised the pedagogical model of cooperative learning (CL) as a best-practice pedagogy, which facilitates students' academic and social learning. Teachers are crucial for implementing CL in the classroom. While they value the method, they often find it complex and challenging to use. Thus, it is crucial to support effective CL professional development (PD) for teachers. Various approaches, forms and lengths of PD in CL are available for teachers, and long- and short-term approaches have been debated in the literature. Based on the perspective of constructive controversy, the goal of this study is to examine teachers' PD in CL, with a particular focus on long- and short-term PD. Drawing on our different perspectives and experiences with long- and short-term PD in CL, we aim to contribute knowledge that can support teachers' learning and implementation of CL. To provide insights and reflections along with theoretical findings, we utilise a narrative approach, with one narrative on long-term PD and one on short-term PD. One issue that becomes clear is the lack of a consensus on what counts as PD for teachers, as PD is a holistic multidimensional construct. We propose four common characteristics that should be considered in developing successful PD regardless of the CL approach or the length of the PD: 1) It enables participating teachers to acquire a shared understanding and knowledge of the theoretical framework of CL; 2) It supports teachers in taking ownership of CL; 3) It involves collaboration (in different forms); and 4) It includes support structures. While both long- and short-term PD can support teacher learning, how the time is used is the most important factor for a successful outcome. Hence, short-term PD is better than no PD at all.

Lindgaard, T. (2023). Do psychedelics facilitate emergence of unconscious psychological processes? Psychodynamic Psychiatry, 51, 270-286.

Psychedelic substances have a long history of use in traditional healing and religious ceremonies worldwide and are increasingly being investigated for their possible therapeutic usage. However, there is still a lack of consensus regarding how best to characterize the psychological effects of psychedelics and how they bring about the positive therapeutic outcomes observed in clinical studies. The aim of this article is to review available evidence from quantitative and qualitative studies on psychedelic-assisted therapy, as well as neurobiological studies, in relation to the hypothesis that psychedelics facilitate the emergence of emotionally charged unconscious material, originally proposed by pioneering psychedelics researcher Stanislav Grof. The reviewed process studies of therapeutic mechanisms in psychedelic-assisted therapy and qualitative studies of treatment participants clearly indicate that the psychedelic experience is associated with the subjective experience of having increased access to and awareness of emotions, memories, and perceptions that are normally avoided or outside of conscious awareness. Brain-imaging studies point to several different neurobiological effects of psychedelics that might be related to these subjective psychological experiences. Available evidence also indicates that this process might constitute an important therapeutic mechanism in psychedelic-assisted therapy, worthy of further investigation.

Lindhe, N., Bengtsson, A., Byggeth, E., Engström, J., Lundin, M., Ludvigsson, M., Aminoff, V., Berg, M., & Andersson, G. (2023). Tailored internet-delivered cognitive behavioral therapy for individuals experiencing psychological distress associated with climate change: A pilot randomized controlled trial. Behaviour Research and Therapy, 171, 104438.

Even among people who are not directly impacted by the consequences of climate change, perceptions about the ongoing crisis can have a negative effect on mental health and well-being. However, empirical evidence on interventions aiming to provide support is currently scarce. In order to address this issue, a pilot-RCT was carried out to investigate the effects of a novel ICBT treatment program. Sixty participants (23–73 years) were recruited and randomly allocated to eight weeks of therapist-supported ICBT ($n = 30$) or a wait-list control condition ($n = 30$). Measures of depressive symptoms, stress, and quality of life were used as primary outcomes, while measures of anxiety, insomnia, climate change–related distress, pro-environmental behaviour, and alcohol use were used as secondary outcomes. The treatment group had moderate to large between-group effects compared to

the waitlist group on measures of depression ($d = 0.87$), stress ($d = 0.76$), quality of life ($d = 0.79$) and climate change–related distress ($d = 0.79$). There were no significant between-group differences on the other outcome measures. The results from this pilot-RCT indicate that individually tailored ICBT can be an effective way to reduce psychological distress associated with climate change without reducing pro-environmental behaviour.

Lindqvist, K., Mechler, J., *Falkenström, F., Andersson, G., Carlbring, P., & Philips, B.* (2023). Therapeutic alliance is calming and curing – the interplay between alliance and emotion regulation as predictors of outcome in internet-based treatments for adolescent depression. *Journal of Consulting and Clinical Psychology, 91*, 426-437.

Therapeutic alliance is one of the most stable predictors of outcome in psychotherapy, regardless of theoretical orientation. The alliance-outcome relationship in internet-based treatments has been investigated with mixed results. There is preliminary evidence that emotion regulation can work as a mediator for the alliance-outcome relationship. The present study aimed to investigate whether alliance predicted outcome session by session in two internet-based treatments for adolescent depression, and whether this relationship was mediated by emotion regulation. Two hundred and seventy-two participants aged 15-19 years and diagnosed with depression were randomized to 10 weeks of internet-based psychodynamic or cognitive behavioral treatment. Both therapists and patients rated the alliance weekly. Patients also rated depressive symptoms and emotion regulation weekly. Analyses were made using cross-lagged panel modeling. Alliance, as rated by both therapist and patient, predicted depression scores the following week. Emotion regulation rated by the patient also predicted depression scores the following week. Furthermore, alliance scores predicted emotion regulation scores the following week, which in turn predicted depression scores the week after, supporting the hypothesis that alliance influences outcome partly through emotion regulation. There were no group differences in any of these relationships. Alliance seems to play an important role in internet-based treatments, partly through emotion regulation. Clinicians working with text-based treatments should pay attention to the working alliance.

Lundqvist, C. (2023). Definitions of wellbeing in sports: Hedonic and Eudaimonic philosophies. In Y. Inoue (Ed.), e-Encyclopedia of Sport Studies; Sport and Wellbeing section. Taylor & Francis/Routledge.

Athlete wellbeing is a priority topic highlighted by most major international sports organisations. Wellbeing conceptualisations can be sorted under two ancient Greek philosophical traditions of human wellbeing; Hedonia and Eudaimonia. The hedonic tradition focuses on emotional elements and regards happiness and life satisfaction as essential for wellbeing. Eudaimonic traditions emphasise positive functionality and self-realisation in terms of personal growth, actualisation of inner talents and purposefulness in life. In sports studies the label flourishing is increasingly used to capture both hedonic and eudaimonic elements of wellbeing that contribute to an athlete's overall wellbeing.

Lundqvist, C., Asratian, A., & Dahlström, Ö. (2023). General lifestyle factors explain young athletes' mental health more than perceived coach autonomy support: a cross-sectional study on basketball players and gymnasts aged 10–22. BMJ Open Sport & Exercise Medicine, 9, e001648.

This study described differences in lifestyle factors (sleeping problems/fatigue, pressure/activation), perceived coach autonomy support and indicators of mental health (well-being and poor general mental health) across various age groups (children ≤ 12 years, youths 13–15 years, junior to senior ≥ 16 years) and sports (basketball and gymnastics). Second, the relationships between lifestyle factors and mental health indicators were explored, hypothesising that the relationships would be mediated by perceived coach autonomy support. A cross-sectional study design was implemented by using an online survey which assessed lifestyle and environmental factors as well as mental health indicators. Participants were recruited through sports clubs in basketball and gymnastics. A total of 209 athletes (77 basketball players and 132 gymnasts) in the age range of 10–22 (median=13) years volunteered to complete the survey. Separate two-way analyses of variance showed significant main effects for age group on sleeping problems/fatigue, sleep quantity, pressure/activation, well-being and poor general mental health, with higher scores reported for older age groups of athletes. Path analysis displayed sleeping problems/fatigue and pressure/activation to significantly affect decreased well-being and poor general mental health; however, the relationships were not mediated by perceived coach autonomy support. Lifestyle factors play a prominent role in mental health outcomes. Researchers studying athlete mental health should consider both general lifestyle and sports-related factors, considering developmental phases in the young athlete's sporting context and overall life.

Lundqvist, C., & Schary, D.P. (2023). Player wellbeing and transitions. In A. M. Williams, B. Drust, & P. R. Ford (Eds.), Science and Soccer (4th ed.) (pp. 168-182). Routledge.

This chapter focuses on wellbeing and wellbeing promotion among soccer players from youth to the professional level. Within the general psychology literature, wellbeing is conceptualized as independent from, but related to, mental illness. As a result, psychological interventions can act to change levels of wellbeing, illbeing, or both. Two different philosophical perspectives on wellbeing dominate the literature, the hedonic and eudaimonic orientation views. The hedonic view adopts the label subjective or emotional wellbeing and considers it synonymously with pleasure and comfort. The eudaimonic perspective focuses on positive functionality and self-realization of individual talents. Organized sports, and particularly team sports, is an avenue where wellbeing among youths can be strengthened by use of mental health interventions. Most of the career transition research in soccer focuses on career termination, primarily at the elite or professional level. While soccer players face many challenges across their careers, times of transition are especially demanding on their mental health, particularly forced or unexpected retirement.

Lundqvist, C., Schary, D.P., Eklöf, E., Zand, S., & Jacobsson, J. (2023). Elite lean athletes at sports high schools face multiple risks for mental health concerns and are in need of psychosocial support. PLoS ONE, 18, e0284725.

The combined demands on an adolescence in an elite sports high school can negatively affect mental health (eg, stress, burnout, depression, anxiety). Late adolescence is also when elite-striving athletes typically transition from junior-to-senior level programs. In addition, adolescent elite lean sports athletes have an increased risk of suffering from abnormal eating pathology. The purpose of this study was to investigate the perceived psychosocial needs that young, elite-striving lean sports athletes in sports high schools find essential for their sports careers and transition from junior-to-senior level sports. Eight Swedish elite-striving lean sports athletes (2 men and 6 women; median age 17.0 years, range: 16–18 years) participated in this study and sports represented were athletics (n = 1), gymnastics (n = 3), and wrestling (n = 4). Semi-structured interviews were performed, and data was analyzed by thematic analysis. Results showed integration, both in the present situation and for the future, as an overarching theme perceived as essential for a successful elite sports career over time. Three additional themes were also identified: (a) Psychosocial stress (combined performance demands, diminished social life, sports-related body weight demands, taboo talking about eating disorders, injuries), (b) Protective

psychosocial factors (social support and psychological safety, communication and coordination school and sports, self-care/health behaviors), and (c) support needs junior-to-senior transition (career advice and mentorship, individualized support). As a result, elite-striving, lean sports athletes attending sports high schools need additional support to excel in their academic and athletic endeavors. Sports developmental programs continue to provide inadequate support before and during the junior-to-senior level transition. Similarly, despite the continued calls for reducing the stigma of mental health, athletes in sports schools still encounter barriers from coaches and peers, making the subject taboo, particularly surrounding eating pathologies.

Manchaiah, V., Chundu, S., Ratinaud, P., Andersson, G., & Beukes, E. W. (2023). Internet-based cognitive behavioral therapy positively influences the social representations of tinnitus. *Frontiers in Audiology and Otology, 1*, 1302005.

The aim of the current study was to examine changes in social representations of tinnitus as a result of Internet-based cognitive behavioral therapy (ICBT). The study used a pretest-posttest design. A total of 106 individuals with tinnitus (mean age 57.5 years) completed a series of questionnaires before and after undertaking ICBT. A free association task was used to collect data. The data were analyzed using qualitative content analysis and also series of quantitative analyses using the IraMuTeQ software. The most common categories reported by individuals with tinnitus before and after ICBT intervention varied. Examination of valance showed that the negative associations decreased from 81 to 56% and the positive and neutral connotations were increased after the intervention. Examination of the frequency of responses and similarities analysis did not reveal major changes following the intervention. However, the prototypical analysis, which considers both the frequency of categories as well as their ranking, showed that more positive and less negative categories appeared in the central zone and in the first periphery following the ICBT intervention. The study suggests that ICBT reduces the negativity associated with tinnitus and increases positivity. The results are consistent with what is seen in patient-reported outcome measures in clinical trials.

Maj, A., Michalak, N., Graczykowska, A., & Andersson, G. (2023). The effect of internet-delivered cognitive behavioral therapy for depression and anxiety on quality of life: a meta-analysis of randomized controlled trials. *Internet Interventions*, 33, 100654.

Although numerous studies have examined the effects of internet-delivered cognitive behavioral therapy (iCBT) for depression and anxiety on quality of life, no meta-analysis has yet been conducted to integrate the results of these studies. We conducted systematic searches in PubMed, Cochrane, and PsycInfo, which included terms for treatment type, modality of delivery, condition, and main outcome. We included studies that met the following inclusion criteria: (a) randomized controlled trials, (b) patients allocated to some form of the control condition, (c) patients receiving some type of treatment of anxiety and/or depression involving Internet-delivered Cognitive Behavioral Therapy, (d) use of a validated outcome measure assessing the level of quality of life, (e) conducted with adult participants diagnosed with anxiety disorder and/or unipolar depression, (f) papers written in English. We analyzed 40 randomized controlled trials with a total of 4289 participants that met inclusion criteria. The pooled between-group effect size for the quality of life overall score was small ($g = 0.35$, 95 % CI: 0.26-0.44, $p = .0001$), favoring iCBT over the control conditions. Regarding the distinct quality of life domains measured by the World Health Organization Quality of Life Assessment, a statistically significant difference between iCBT and control conditions was found only for the physical health domain ($g = 0.56$, 95 % CI: 0.06-1.07, $p = .029$), in favor of iCBT. In both cases, heterogeneity was moderate. While the effect on the quality of life is small (the overall quality of life score) to moderate (the physical health domain score), we conclude that iCBT for depression and anxiety may be a promising approach for improving the quality of life of patients.

Malmquist, A. (2023). Föräldraskap som transperson: Erfarenhet och möjliga vägar I: E. Summanen & M. Wurm (red.), Trans: Fakta, forskning och erfarenheter (s. 245-257). Natur och Kultur.

Att få barn är för många människor en av de stora händelserna i livet. Det lilla barnets behov av trygghet, kärlek, och vägledning innebär ett stort och långsiktigt ansvar för den som blir förälder, samtidigt som föräldraskapet ofta är en källa till mening i livet. Många transpersoner upptäcker – vare sig man redan har barn eller är i en process av att försöka bli förälder – att ens transerfarenhet kan komma att påverka på flera olika sätt, exempelvis i form av möjligheter, bemötande och känslor.

Malmquist, A. (2023). Swedish lesbian mothers arrange parental leave: Idealizing equality, sharing (more or less) evenly. I: U. Dahl, J. Mizielńska, R. Uibo, A. Sorainen, (red.), Queer(y)ing Kinship in the Baltic Region and Beyond (s. 227-252). Södertörns högskola.

Lesbian couples divide both paid work and un-paid housework more evenly than other couples do. Lesbian couples with children also divide childcare more evenly than do different-sex parenting couples, and both mothers generally spend more time with the children than do fathers in different-sex couples. Lesbian women's highly equal relations have been explained by their more egalitarian values, and by the fact that they experience less impact from gender-stereotyped expectations on labor division. The present work focuses on how lesbian women in Sweden have arranged their parental leave.

Malmquist, A., Bredenberg, C., Melin, J., Wurm, M., Tasker, F., & Gato, J. (2023). Queers in quarantine: Young Swedish LGBTQ people's experiences during the COVID-19 pandemic. Scandinavian Journal of Psychology, 64, 150-159.

The COVID-19 pandemic led to major restrictions of everyday life activities. This worsened the social situation of many people, and marginalized groups have been especially affected. This article explores how LGBTQ+ young adults in Sweden have been affected by the COVID-19 pandemic and the subsequent recommendations and restrictions. Fifteen participants between 20–29 years, who self-identified as lesbian, gay, bisexual, transgender, and queer (LGBTQ+), were interviewed about their experiences. A thematic analysis of the data showed that the participants perceived their psychological wellbeing to have been greatly affected by the pandemic. Several reported symptoms of clinical depression, as well as anxiety, worry, rumination, and a heightened sensitivity to stress. Stressors included fear of the disease itself, and fear of spreading the virus, as well as the negative consequences of adhering to the recommendations of social distancing, which constantly interplayed with the marginalized position of being a young LGBTQ+ person. Most participants experienced a decrease in minority stress in face-to-face interaction with social distancing measures in place, but an increase in minority stress online. Those who faced minority stress at home experienced the isolation as particularly stressful. Limited access to the LGBTQ+ community was a common stressor. For transgender participants, the effects on transgender healthcare, such as prolonged waiting times for gender dysphoria assessment and hormone treatment, were a major challenge. Our results have added valuable knowledge to research indicating how vulnerable young adults were highly affected by the COVID-19 pandemic restrictions.

Malmquist, A., Hjerpe, M., Glaas, E., Lundgren, T., Gyberg, P. & Storbjörk, S. (2023). Jag drabbas – det här får kommunen lösa: En intervjustudie med svenska villaägare som påverkats av översvämningar från skyfall. Sociologisk tidskrift, 60, 275-298.

Climate change leads to increased and new risks in societies. Pluvial flooding is one such risk that already generates major damages, which are expected to increase significantly in the future. Not least, many homeowners risk being affected by floods, and have been attributed a central role in Sweden's climate adaptation policy. Despite this, no previous Swedish studies have specifically investigated how homeowners have been affected by floods beyond damage costs, and few studies have investigated how homeowners have managed or view their responsibility to prevent pluvial flood risks. The lack of such knowledge may lead to less informed decisions about climate adaptation. Through interviews with homeowners affected by flooding, this study examines how they; experience flood risks, have been affected materially and health-wise, have managed the situation, and consider responsibility to prevent new damage . The study shows clear effects on the well-being of homeowners, that few have adapted their property and tend to underestimate the flood risk facing their property. Homeowners also tend to displace responsibility for preventive measures to other actors, mainly the municipality.

Malmquist, A., Lundberg, T. & Wurm, M. (2023). Minority stress and microaggression experiences among sexual minority women in Sweden. Lambda Nordica, 28, 71-99.

In the present article we explore when, where, and how Swedish sexual minority women experience minority stress and microaggression. Drawing on deductive thematic analysis of forty-eight interviews, we show that minority stress and microaggressions were experienced in a wide range of everyday life areas. Exposure was described in the forms of physical violence, threats and verbal abuse, ignorance and prejudice, discrimination, microassaults, microinsults, microinvalidations, excessive focus, exotification, and silence. The exposure was described to cause negative emotions, hypervigilance, a feeling of being different, internalized homo- or biphobia, and mental health problems. Despite the Swedish population being among the most accepting towards sexual minorities, theories of minority stress and microaggressions are still useful for highlighting the lived experiences of sexual minority women. Focusing on lived experiences of minority stress and microaggressions provides us with a visualization of the texture of the experiences that helps us understand what various aspects of the theories mean in everyday life.

Manchaiah, V., Chundu, S., Ratinaud, P., Andersson, G., & Beukes, E. W. (2023). Social representations of 'tinnitus' and 'health' among individuals with tinnitus seeking online psychological interventions. *Audiology Research, 13*, 207-220.

Social representations theory (SRT) is a body of theory within social psychology concerned with how individuals, groups, and communities collectively make sense of socially relevant or problematic issues, ideas, and practices. SRT has been increasingly used in the area of health and disability. The current study examined the social representations of "tinnitus" and "health" among individuals with tinnitus who are seeking online psychological interventions. The data were gathered using a free association task about their "tinnitus" and "health" from 399 individuals with tinnitus. The data were analyzed using both qualitative and quantitative analyses methods. The responses resulted in 39 and 30 categories respectively, for "tinnitus" and "health". The most commonly occurring categories for tinnitus included: descriptions of tinnitus (18%), annoying (13.5%), persistent (8%), and distracting (5%). The most commonly occurring categories for health included: content (12%), conditions (8%), active (7%), take control (6%), and overweight (5%). The responses to tinnitus had predominantly negative connotations (i.e., 76.9%) whereas a larger proportion of responses toward their health was related to positive connotations (i.e., 46.4%). These frequently occurring items were also dominant in similarities analysis. Prototypical analysis of tinnitus responses identified categories horrible and bothersome to be key items in the central zone. The categories in central zone of health responses included: content, active, healthy, grateful, and overweight. Individuals with tinnitus have very negative view of their tinnitus impacting their psychological status. Tinnitus management should focus on reducing the negative associations toward their tinnitus and strengthen the positive aspects related to their general health.

Martinez de Alva, P., Ghaderi, A., Andersson, G., Feldman, I., & Sampaio, F. (2023). The cost-effectiveness of a virtual intervention to prevent eating disorders in young women in Sweden. *International Journal of Eating Disorders, 56*, 1887-1897.

To determine the cost-effectiveness of a virtual version of the Body Project (vBP), a cognitive dissonance-based program, to prevent eating disorders (ED) among young women with a subjective sense of body dissatisfaction in the Swedish context. A decision tree combined with a Markov model was developed to estimate the cost-effectiveness of the vBP in a clinical trial population of 149 young women (mean age 17 years) with body image concerns. Treatment effect was modeled using data from a trial investigating the effects of vBP compared to

expressive writing (EW) and a do-nothing alternative. Population characteristics and intervention costs were sourced from the trial. Other parameters, including utilities, treatment costs for ED, and mortality were sourced from the literature. The model predicted the costs and quality-adjusted life years (QALYs) related to the prevention of incidence of ED in the modeled population until they reached 25 years of age. The study used both a cost-utility and return on investment (ROI) framework. In total, vBP yielded lower costs and larger QALYs than the alternatives. The ROI analysis denoted a return of US \$152 for every USD invested in vBP over 8 years against the do-nothing alternative and US \$105 against EW. vBP is likely to be cost-effective compared to both EW and a do-nothing alternative. The ROI from vBP is substantial and could be attractive information for decision makers for implementation of this intervention for young females at risk of developing ED.

This study estimates that the vBP is cost-effective for the prevention of eating disorders among young women in the Swedish setting, and thus is a good investment of public resources.

McFerran, D. J., Fagelson, M., & Andersson, G. (2023). Current perspectives of tinnitus and its management. *ENT & Audiology News*, 32, 1.

Brief review of recent tinnitus research in honour of the late professor David Baguley.

Mendes-Santos, C., Campos, T., Ferreira, D., Weiderpass, E., Santana, R., & Andersson, G. (2023). Breast cancer survivors' attitudes toward eMental Health: a cross-sectional study. *Healthcare*, 11, 1920.

Breast cancer survivors' (BCS) attitudes toward eMental Health (eMH) are largely unknown, and adoption predictors and their interrelationships remain unclear. This study aimed to explore BCS' attitudes toward eMH and investigate associated variables. A cross-sectional study involving 336 Portuguese BCS was conducted. Attitudes toward eMH, depression and anxiety symptoms, health-related quality of life, and sociodemographic, clinical, and internet-related variables were assessed using validated questionnaires. Spearman-ranked correlations, χ^2 , and multiple regression analyses were computed to explore associations between attitudes and collected variables. BCS held a neutral stance toward eMH. In models adjusted for age and education, positive attitudes were statistically significantly associated with increased depressive symptoms and worse emotional, cognitive, and body image functioning. Social network use, online health information and mental healthcare seeking, higher self-reported knowledge of eMH, and previous use of remote healthcare were positively

associated with better attitudes toward eMH. eMH programs targeting BCS seem to be a promising strategy for providing supportive psychosocial care to BCS. However, increasing awareness about eMH efficacy and security may be necessary to improve its acceptance and use among BCS. Additional research is necessary to understand how BCS' unmet care needs, and specifically their psychological distress severity, may impact BCS' acceptance and use of eMH.

Meurling, J., Rondung, E., Leiler, A., Wasteson, E., Andersson, G., Richards, D., Shahnava, S., & Bjärtå, A. (2023). An online tiered screening procedure to identify mental health problems among refugees. *BMC Psychiatry*, 23, 7.

Many refugees suffer from mental health problems due to stressful and traumatic events before, during, and after migration. However, refugees are facing a wide variety of barriers, limiting their access to mental health care. Internet-based tools, available in several languages, could be one way to increase the availability of mental health services for refugees. The present study aimed to develop and test a screening tool to screen for clinically relevant symptoms of psychiatric disorders common among refugees (i.e. Depression, Anxiety, Post-traumatic stress disorder, and Insomnia). We, designed, translated, and adapted an internet-based tiered screening procedure suitable for use with the largest refugee populations residing in Sweden. The tool aims to accurately identify symptoms of mental distress (Tier 1), differentiate between symptoms of specific psychiatric disorders (Tier 2), and assess symptom severity (Tier 3). We tested the overall efficiency of using a tiered screening procedure. Seven hundred fifty-seven refugees residing in Sweden, speaking any of the languages Arabic, Dari, Farsi, English, or Swedish, completed an online questionnaire following a three-tiered procedure with screening instruments for each tier. In this study, the Tier 3 scales were used as reference standards for clinically relevant symptoms, to evaluate screening efficiency in terms of accuracy and reduction of item burden in previous tiers. The results show that the tiered procedure could reduce the item burden while maintaining high accuracy, with up to 86% correctly assessed symptoms and few false negatives with moderate symptoms and above (at most 9%), and very few with severe symptoms (at most 1.3%). This study generated an accurate screening tool that efficiently identifies clinically relevant symptoms of common psychiatric disorders among refugees. Using an adapted online tiered procedure to screen for multiple mental health issues among refugees has the potential to facilitate screening and increase access to mental health services for refugees. We discuss the utility of the screening tool and the necessity of further evaluation.

Micklitz, H. M., Nagel, Z., Jahn, S., Oertelt-Prigione, S., Andersson, G., Bengel, J., & Sander, L. B. (2023). Digital self-help for people experiencing intimate partner violence: a qualitative study on user experiences and needs including people with lived experiences and services providers. *BMC Public Health*, 23, 1471.

Intimate partner violence (IPV) is a prevalent public health issue associated with multiple physical and mental health consequences for survivors. Digital interventions can provide low-threshold support to those experiencing IPV, but existing digital interventions have limited efficacy in improving the safety and mental health of IPV survivors. Digitally adapting an integrative intervention with advocacy-based and psychological content holds promise for increasing the efficacy of digital interventions in the context of IPV. This study examines the needs, acceptability and usability of an integrative digital intervention for people affected by IPV. We used the think-aloud method and semi-structured interviews with a sample of six people with lived experiences of IPV and six service providers. We analyzed the data using thematic analysis. We identified the increasing general acceptance of digital support tools and the limited capacity of the current support system as societal context factors influencing the acceptance of and needs regarding digital interventions in the context of IPV. An integrative digital self-help intervention offers several opportunities to complement the current support system and to meet the needs of people affected by IPV, including the reduction of social isolation, a space for self-reflection and coping strategies to alleviate the situation. However, potentially ongoing violence, varying stages of awareness and psychological capacities, and as well as the diversity of IPV survivors make it challenging to develop a digital intervention suitable for the target group. We received feedback on the content of the intervention and identified design features required for intervention usability. An integrative digital self-help approach, with appropriate security measures and trauma-informed design, has the potential to provide well-accepted, comprehensive and continuous psychosocial support to people experiencing IPV. A multi-modular intervention that covers different topics and can be personalized to individual user needs could address the diversity of the target population. Providing guidance for the digital intervention is critical to spontaneously address individual needs. Further research is needed to evaluate the efficacy of an integrative digital self-help intervention and to explore its feasibility in different settings and populations.

Moche, H., Erlandsson, A., Dickert, S., & Västfjäll, D. (2023). The potential and pitfalls of unit asking in reducing scope insensitivity. Judgment and Decision Making, 18, e28.

This article revisits and further investigates the extent to which scope insensitivity in helping contexts can be reduced by the unit asking (UA) method. UA is an intervention that first asks people to help one unit and then asks for willingness to help multiple units. In 3 studies (N = 3,442), participants took on the role of policymakers to allocate help (motivation to help and willingness to pay) to local aid projects. They underwent either UA or a control condition (in which they stated their willingness to help only to the multiple units). Against expectations, the first 2 studies found a reversed UA effect for helping motivation, such that help decreased when participants were in the UA condition. However, the third study found a UA effect for helping motivation when participants made the sequential assessments within one project (when the individual unit belonged to the multiple units-group), rather than between projects (when the individual unit belonged to another group). Thus, our results suggest that the 2 assessments critical for the UA method should be done within the same project rather than between 2 projects to successfully reduce scope insensitivity. Further, the age of the unit (child or adult), the number of the unit(s), the composition of the group (homogeneous or heterogeneous), and the size of the group did not substantially reduce scope insensitivity with UA.

Nielsen, M. B., Rosander, M., & Einarsen, S. V. (2023). Witnessing workplace bullying — protocol for a systematic review and meta-analysis of individual health and well-being outcomes. Systematic Reviews, 12, 119.

Most research on workplace bullying has examined the impact of the mistreatment on those exposed. Although bullying also is assumed to have significant ripple effects on bystanders, the empirical evidence for this line of research is highly fragmented and inconclusive. The overarching aim of this planned systematic review and meta-analysis is therefore to determine whether witnessing bullying of others at the workplace is associated with health problems and lower well-being among the observers. To achieve this aim, the review includes an assessment of which theoretical frameworks and methodological designs used in research so far and shed light on which confounders, mediators, and moderators that have been accounted for. A systematic review and meta-analysis will be conducted. Electronic databases will be searched using predefined search terms to identify relevant studies. Eligible studies should report empirical findings on any individual outcome variable assessed among witnesses to workplace harassment and bullying or any overlapping concept. Primary

observational studies with cross-sectional or prospective research design, case-control studies, and studies with experimental designs will be included. Qualitative interviews and case studies will be excluded. The methodological quality of the included studies will be assessed with a previously established checklist for studies on workplace bullying. The quality of evidence for an association between witnessing bullying and potential outcomes will be evaluated in accordance with the GRADE system. A random effects meta-analysis will be conducted with the Comprehensive Meta-Analysis software, version 3. We expect that findings on outcomes of bystanding to workplace bullying will provide practitioners with an understanding of the effects workplace bullying may have also on non-targets and the workplace as a whole. Such information is important regarding the development and implementation of effective measures and interventions against bullying. In addition, the review will increase our understanding of existing research gaps and enable us to make recommendations to address them. Our work aligns with the sustainable development agenda to protect workers and reduce inequalities at the workplace.

Nilsson, D., Svedin, C. G., Lundqvist, C., & Dahlström, Ö. (2023). Resilience in Swedish adolescents - does resilience moderate the relationship between trauma experience and trauma symptoms? Psychological Trauma, 15(Suppl 1), S125–S134.

The objective was to examine whether universal prevention via a digital health platform can reduce the injury incidence in athletics athletes aged 12–15 years and if club size had an influence on the effect of the intervention. This was a cluster randomised trial where young athletics athletes were randomised through their club following stratification by club size into intervention (11 clubs; 56 athletes) and control (10 clubs; 79 athletes) groups. The primary endpoint was time from baseline to the first self-reported injury. Intervention group parents and coaches were given access to a website with health information adapted to adolescent athletes and were encouraged to log in and explore its content during 16 weeks. The control group continued training as normal. Training exposure and injury data were self-reported by youths/parents every second week, that is, eight times. The primary endpoint data were analysed using the log-rank test. Cox proportional hazards regression was used to analyse the second study aim with intervention status and club size included in the explanatory models. The proportion of completed training reports was 85% (n=382) in the intervention group and 86% (n=545) in the control group. The injury incidence was significantly lower (HR=0.62; $\chi^2 = 3.865$; $p=0.049$) in the intervention group. The median time to first injury was 16 weeks in the intervention group and 8 weeks in the control group. An interaction effect between the intervention and stratification factor was observed with a difference in injury risk between athletes

in the large clubs in the intervention group versus their peers in the control group (HR 0.491 (95% CI 0.242 to 0.998); $p=0.049$). A protective effect against injury through universal access to health information adapted for adolescent athletes was observed in youth athletics athletes. The efficacy of the intervention was stronger in large clubs.

Nilsson, K., Andersson, G., Johansson, P., & Lundgren, J. (2023). Developing and designing an internet-based support and education program for patients awaiting kidney transplantation with deceased donors: A delphi study. *BMC Nephrology*, 24, 311.

The aim of this study was to develop and refine the content and design of an internet-based support and education program for patients awaiting kidney transplantation from deceased donors. A Delphi process was used. A prototype internet-based intervention was drafted, based on previous research. The intervention included educational and psychological support to manage the uncertain waiting time and specific education enabling preparation for transplantation and adjustment to life after transplantation. In a two-round Delphi process, patients who had received a kidney transplant from a deceased donor within the last 2 years ($n = 27$), significant others ($n = 6$), health-care personnel with renal ($n = 20$) or transplant ($n = 14$) expertise, rated importance of content and design aspects of the prototype intervention on a 5-point scale using web questionnaires. A median of ≥ 3 was considered as consensus. Quantitative data was analyzed using descriptive statistics. Free text answers were encouraged and analyzed using deductive content analysis. The STROBE-checklist was used. Consensus was reached for all suggested content and design items in round 1, with median ratings of 4 or 5. Qualitative analysis from round 1 suggested four new content and design items which were rated in round 2, on all which consensus was reached; information about life with young children as relatives, expansion of kidney transplantation specific information, program extension by one week and individualization by making information available based on individual needs. There was consensus among heterogenous experts regarding suggested educational and psychological support content and design aspects, and additional content and design aspects were identified for an internet-based support and education program for patients awaiting kidney transplantation from deceased donors.

Nissling, L., Weineland, S., Vernmark, K., Radvogin, E., Engström, A.-K., Schmidt, S., Granberg, E. N., Larsson, E., & Hursti, T. (2023). Effectiveness of and processes related to internet-delivered acceptance and commitment therapy for adolescents with anxiety disorders: a randomized controlled trial. *Research in Psychotherapy*, 26, 681.

Early access to evidence-based help is crucial for adolescents with anxiety disorders. Internet-delivered acceptance and commitment therapy (iACT) may offer adolescents increased access to care and more flexibility in engaging with treatment when and how they prefer. Process-based therapies, such as ACT, focus on theoretically derived and empirically tested key mechanisms in treatment that enable change. This study aimed to investigate the effectiveness of iACT for adolescents with anxiety disorders. The study also assessed the relationship between psychological flexibility and treatment outcomes and the relationship between participating adolescents' and therapists' perceived alliance and treatment outcomes. This was a randomized controlled trial comparing a 10-week intervention group with a wait-list control group. The 52 participants, aged 15 to 19, were recruited from all over Sweden. The treatment was effective in increasing quality of life and psychological flexibility, with moderate between-group effect sizes based on observed values. Changes in psychological flexibility was associated with changes in anxiety symptoms. The results further showed a statistically significant between-group difference in post-treatment diagnoses. No significant time per group interaction was found for anxiety symptoms, as both groups improved. Working alliance was rated as high by both participating adolescents and therapists but showed no significant relationship with treatment outcomes. Participants found the treatment an acceptable intervention. This study shows promising results for iACT in treating adolescents with anxiety disorders. The results suggest the model of psychological flexibility as an important process of change in treatment outcomes. Future research should validate these findings in larger samples and clinical contexts.

Nomeikaite, A., Andersson, G., Dear, B. F., Dumarkaite, A., Gelezelyte, O., Truskauskaite, I., & Kazlauskas, E. (2023). The role of therapist support on the efficacy of an internet-delivered stress recovery intervention for healthcare workers: A randomized control trial. *Cognitive Behaviour Therapy*, 52, 488–507.

Internet-delivered CBT interventions effectively improve different aspects of mental health, although the therapist's role remains unclear. The aim of this trial was to evaluate the efficacy of a therapist-supported 6-week internet-delivered intervention in improving stress recovery among healthcare workers compared to a group with optional therapist support. A total of 196 participants were recruited

and randomly allocated to regular therapists' support or optional therapists' support groups. The primary outcome measure was the Recovery Experiences Questionnaire (REQ), developed to assess four components of stress recovery: psychological detachment, relaxation, mastery, and control. Secondary outcomes measured perceived stress (PSS-10), anxiety (GAD-7), depression (PHQ-9), and psychological well-being (WHO-5). All four stress recovery skills improved significantly after participating in the intervention at a 3-month follow-up, with small to medium effects (0.27-0.65) in both groups. At follow-up, we also found a significant reduction in perceived stress, depression, and anxiety in both groups, as well as an improvement in psychological well-being. The results indicate that ICBT can be effective in improving stress recovery skills among healthcare workers with optional support from the therapist, provided at the participants' request. This RCT suggests that optional therapist support could meet participants' needs and reduce resources needed in routine care.

Nomeikaite, A., Gelezelyte, O., Berger, T., Andersson, G., & Kazlauskas, E. (2023). Exploring reasons for usage discontinuation in an internet-delivered stress recovery intervention: A qualitative study. *Internet Interventions, 34*, 100686.

Internet-delivered cognitive behavioral therapy (ICBT) interventions can be as effective as traditional face-to-face therapy for various mental health conditions. However, a significant challenge these online interventions face is the high rate of people who start but then stop using the program. This early discontinuation can be seen as incomplete treatment and can reduce the potential benefits for users. By exploring why people stop using ICBT programs, we can better understand how to address this problem. This study aimed to examine the experiences of healthcare workers who had stopped using a therapist-guided internet-delivered stress recovery program to gain deeper insights into usage attrition. We conducted semi-structured interviews with twelve participants who were female healthcare workers ranging in age from 24 to 68 years ($M = 44.67$, $SD = 11.80$). Telephone interviews were conducted and the data were transcribed and analyzed using thematic analysis. Qualitative data analysis revealed that most participants had multiple reasons for discontinuing the program. They identified both barriers and facilitators to using the program, which could be categorized as either personal or program related. Personal aspects included life circumstances, personal characteristics, and psychological responses to the program. Program-related aspects encompassed technical factors, program content, and the level of support provided. The findings of this study can enhance our understanding of why people stop using guided internet-delivered programs. We discuss the practical and research implications, with the ultimate aim of improving the design and efficacy of internet interventions.

Pahnke, J., Andersson, G., Bohman, B., Bjureberg, J., Jokinen, J., Jansson-Fröjmark, M., & Lundgren, T. (2023). Acceptance and commitment therapy for autistic adults: A randomized controlled pilot study in a psychiatric outpatient setting. *Autism*, 27, 1461-1476.

Autistic adults are often stressed and feel depressed or anxious. However, mental health programs that are suited for autistic adults are few. Acceptance and commitment therapy is a psychotherapy method that seems to help people feel better, although not thoroughly evaluated in autistic individuals. In this study, 20 autistic adults had 14 weeks of acceptance and commitment therapy group treatment suited for autism (NeuroACT), while 19 autistic adults had ordinary care. The acceptance and commitment therapy group treatment program seemed logical and reasonable to the participants. Also, when comparing the participants in the NeuroACT group with those in the ordinary care group, the NeuroACT participants reported less stress and higher quality of life. Compared to the ordinary care group, they could also manage distressing thoughts better, perceived themselves as more flexible, and did not avoid stressful situations as much as before. However, there was no significant difference between the groups in depression, anxiety, sleep problems, social aspects of autism, everyday functioning, or executive challenges. Slightly more NeuroACT participants did not finish the treatment than ordinary care participants. In conclusion, the NeuroACT program may be a treatment for autistic adults who feel stressed and have reduced quality of life. More studies are needed to see how helpful the NeuroACT program is for autistic adults.

Pedras, S., Rocha, M., Garcia, D., Faria, S., & Moreira, P. (2023). Stability and change in adolescent's affective profiles over a two-year and a six-year period. In D. Garcia (Ed.), *The Affective Profiles Model: 20 Years of Research and Beyond* (pp. 287-312). Cham, Switzerland: Springer.

The affective profiles model, operationalized as the combination of individuals' high/low positive/negative affective experience, is a well-established method for providing insights into adolescents' affective functioning and self-regulation: self-fulfilling (high positive affect, low negative affect), high affective (high positive affect, high negative affect), low affective (low positive affect, low negative affect), and self-destructive (low positive affect, high negative affect). However, there is lack of longitudinal studies investigating profile stability and change during adolescence. We aimed to investigate if having a specific affective profile at one point in time predicted adolescents' affective profile 2 and 6 years later. At a general level, the results suggest that having a self-fulfilling profile at

the 7th grade might protect well-being through adolescence. Moreover, the fact that individuals with certain profiles are at more risk of keeping low levels of positive emotions or high levels of negative emotions has important implications for the promotion of adaptive and functional affective regulation during adolescence. Knowing when and which students are at risk of maintaining or changing to a dysfunctional and non-adaptive profile, from one year to the next, may allow the implementation of interventions that meet the emotional and affective characteristics of each adolescent.

Persson Asplund, R., Asplund, S., von Buxhoeveden, H., Delby, H., Eriksson, K., Gerhardsson, M., Johansson, T., Palm, J., Torstensson, J., Ljótsson, B., Carlbring, P., & Andersson, G. (2023). Work-focused versus generic internet-based interventions for employees with stress-related disorders: Randomized controlled trial. *Journal of Medical Internet Research*, 23, e34446.

In recent decades, stress-related disorders have received more attention, with an increasing prevalence, especially within the working population. The internet provides new options for broad dissemination, and a growing body of evidence suggests that web-based interventions for stress might be effective. However, few studies have examined the efficacy of interventions in clinical samples and work-related outcomes. The aim of this study was to evaluate the efficacy of an internet-based cognitive behavioral intervention for stress-related disorders integrating work-related aspects (work-focused and internet-based cognitive behavioral therapy [W-iCBT]), compared with a generic internet-based cognitive behavioral therapy (iCBT) group and a waitlist control (WLC) group. In this trial, 182 employees, mainly employed in the health care, IT, or educational sector, who fulfilled the criteria for a stress-related disorder, were randomized to a 10-week W-iCBT (n=61, 33.5%), generic iCBT (n=61, 33.5%), or WLC (n=60, 33%). Self-rated questionnaires on perceived stress, burnout, exhaustion, and other mental health- and work-related outcomes were administered before and after the treatment and at 6- and 12-month follow-ups. Compared with the WLC group, participants of the W-iCBT and iCBT groups showed an equal and significant reduction in the primary outcome (Shirom-Melamed Burnout Questionnaire [SMBQ]) from pretreatment to posttreatment assessment (Cohen $d=1.00$ and 0.83 , respectively) and at the 6-month follow-up (Cohen $d=0.74$ and 0.74 , respectively). Significant moderate-to-large effect sizes were also found in the secondary health- and work-related outcomes. The W-iCBT was the only group that exhibited significant effects on work ability and short-term sickness absence. Short-term sickness absence was 445 days lower than the WLC group and 324 days lower than the iCBT intervention group. However, no significant differences were found in terms of work experience or long-term sick leave. The work-

focused and generic iCBT interventions proved to be superior compared with the control condition in reducing chronic stress and several other mental health-related symptoms. Interestingly, effects on work ability and short-term sickness absence were only seen between the W-iCBT intervention and the WLC groups. These preliminary results are promising, indicating that treatments that include work aspects may have the potential to accelerate recovery and reduce short-term sickness absence because of stress-related disorders.

Persson Asplund, R., Carvalho, F., Christensson, H., Videsäter, E., Häggman, A., Ljótsson, B., Carlbring, P., & Andersson, G. (2023). Learning how to recover from stress: results from an internet-based randomized controlled pilot trial. *Internet Interventions*, 34, 100681.

This randomized, controlled pilot trial evaluated the efficacy of a brief internet-based recovery training intervention targeting a clinical sample of distressed employees. A sample of 69 employees with elevated symptoms of stress were assigned randomly to a five-week guided recovery training intervention (iRTP, $n = 35$) or a wait-list control (WLC, $n = 34$). The study was conducted in Sweden and participants enrolled via an open recruitment strategy. Self-report data were collected pre- and post-intervention, then six and 12 months after the intervention. The primary outcome measure was the Recovery Experience Questionnaire (REQ). The secondary outcome measures gauged other relevant mental and work-related health outcomes. Participants in the wait-list control group received access to iRTP after the six-month follow-up. Compared with the controls, participants in the intervention group showed a significant and large overall improvement on the primary outcome REQ ($d = 0.93$), and small to moderate effects on the secondary outcomes including, perceived stress ($d = 0.48$), anxiety ($d = 0.49$), quality of life ($d = 0.47$), and work ability ($d = 0.47$) during post-assessment. No significant differences were found at any time point regarding burnout, exhaustion, depression, physical exercise, work experience, or sickness absences. This pilot trial is one of the first to examine a brief recovery training program's efficacy, suggesting that employees across a wide range of professions could learn how to recover from elevated stress symptoms. This type of accessible and brief recovery intervention could potentially prevent and reduce the negative effects of stress, as well as improve recovery and quality of life. However, more research is needed with larger samples before further conclusions can be drawn.

Reichenberg M., Thunberg, G., Holmer, E., Palmqvist, L., Samuelsson, J., Lundälv, M., Mühlenbock, K., & Heimann, M. (2023). Reading interventions and teacher self-efficacy: Will an app-based reading intervention change how teachers rate their teaching self-efficacy beliefs? A test of social cognitive theory in Swedish special educational settings. *Frontiers in Education*, 8, 1184719.

Educational researchers have challenged Bandura's prediction that self-efficacy beliefs tend to be established early in learning and that once set, self-efficacy beliefs persist unless a critical event causes them to be reevaluated. However, the results have been mixed in previous research, including being positive, negative, and unchanged. In response, we evaluated how 75 teachers (i.e., special educators) rate their teaching self-efficacy beliefs in motivating student reading and adapting reading instruction at two time points. All teachers taught students with an intellectual disability, communication difficulties, and poor reading skills. The teachers participated in a workshop to learn teaching reading strategies with apps under various conditions (comprehension strategies, phonemic strategies, or both comprehension and phonemic strategies). We analyzed teacher self-efficacy beliefs at two time points with a 12-week span (pre-and postintervention). First, we developed measures of teacher self-efficacy through confirmatory factor analyses. Next, we analyzed the data with multiple imputation and mixed linear regression with difference-in-differences (DiD). The results indicated no statistically significant treatment effect on teachers' rating of their teaching self-efficacy beliefs. We conclude that our results agree with Bandura's original prediction and thus, his social cognitive theory.

Rosander, M. (2023). Könsperspektiv på mobbning i svenskt arbetslivet. In H. Sandmark (Ed.), *Ett hälsofrämjande arbetsliv? Utmaningar och möjligheter* (pp. 81–107). Studentlitteratur.

Mobbning och kränkande särbehandling är ett stort problem i svenskt arbetsliv. Upp emot var femte yrkesarbetande i Sverige utsätts för en negativ behandling till den grad att det starkt påverkar hälsa och mående och arbetsupplevelsen i stort. Kapitlet handlar om detta arbetsmiljöproblem, med specifikt fokus på om och i så fall hur könsskillnader i utsatthet och dess konsekvenser kan komma till uttryck. Kapitlet tydliggör vad mobbning är, hur vanligt det är, vad som kan ligga bakom, vilka konsekvenserna är och vad som kan göras för att komma till rätta med problematiken.

Rosander, M., Hetland, J., & Einarsen, S. V. (2023). Workplace bullying and mental health problems in balanced and gender-dominated workplaces. Work & Stress, 37, 325–344.

We investigate risks of exposure to workplace bullying and related mental health outcomes for men and women when being in a gender minority as opposed to working in a gender-balanced working environment or when belonging to a gender majority. Based on a social identity perspective, we tested hypotheses about the risks of bullying and differences in the increase in mental health problems in a probability sample of the Swedish workforce in a prospective design. The results showed an increased risk of bullying and an increase in mental health problems as an outcome for men when in a gender minority, however, there were no corresponding risks for women. The risks for men were most obvious for person-related negative acts and for anxiety as an outcome. Social identity may clarify why a minority might be more at risk as well as the outcome it may lead to. Deviating from the group prototype may be perceived as a threat to the group alienating the target and opening up for sanctions. The observed gender differences may further be understood using social role theory. Men in female-dominated workplaces may deviate more from the expected traditional gender role and may be more susceptible to sanctions and suffer graver consequences as a result. The outcomes may be more severe if exposed to person-related acts compared to acts related to one's work.

Rosander, M., & Nielsen, M. B. (2023). Witnessing bullying at work: Inactivity and the risk of becoming the next target. Psychology of Violence, 13, 34–42.

Bullying is a form of psychological violence defined as a prolonged, systematic mistreatment at work where the victim has difficulties defending themselves. While the antecedents and consequences for those exposed to workplace bullying are well known, little is known about the consequences for bystanders who intervene when witnessing bullying of others. To fill this knowledge gap, this study examines the risk of bystanders becoming the next target of workplace bullying if they intervene or remain inactive. The study is based on a longitudinal probability sample of the Swedish workforce ($n = 788$). To assess new victims of bullying, respondents bullied at baseline were excluded from the analyses. The analyses were adjusted for sex, age, place of birth, education, employment period at the current place of work, managerial position, mental health problems, and unclear roles in the organization. The results showed no increased risk of becoming a new victim of bullying for respondents who had actively intervened when witnessing bullying of others. In contrast, respondents who remained

inactive had a threefold risk of becoming a victim of bullying at follow-up. The findings point to the importance of intervening when witnessing bullying, both for the victim and for oneself, and that this may help the organization become a safer workplace.

Rosander, M., & Nielsen, M. B. (2023). Perceived ability to defend oneself against negative treatment at work: Gender differences and different types of bullying behaviours. Applied Psychology, 72, 1430–1448.

A lack of ability to defend oneself against bullying behaviour is considered a defining aspect of workplace bullying. The aim of the present study was to investigate the effects perceived ability to defend has on exposure to bullying behaviour, and whether there are gender differences as well as differences regarding the type of bullying behaviour one is exposed to. The study is based on a longitudinal probability sample drawn from the whole Swedish workforce. The final sample size (394 participants, 43% men and 57% women) included only those who responded at both time points and who reported exposure to at least one bullying behaviour. The results showed that perceived ability to defend oneself only had a protective effect on bullying behaviours for male targets exposed to direct types of bullying behaviours. The study is an important contribution to the understanding of workplace bullying as a concept by showing that the perception of being able to protect oneself from bullying behaviour, in most cases, has little or no effect on the levels of bullying behaviour, and thereby on further escalation of the exposure, especially for women. An implication of the results is that organisations and employers must actively intervene in the early stages of the bullying process rather than believing that the targeted worker is able to deal with or withstand the exposure on their own.

Rosander, M., & Salin, D. (2023). A hostile work climate and workplace bullying: Reciprocal effects and gender differences. Employee Relations, 45, 46–61.

In this paper the authors argue that organizational climate and workplace bullying are connected, intertwined and affect each other. More precisely, the focus of the present study is how a hostile climate at work is related to workplace bullying. A hostile work climate is defined as an affective organizational climate permeated by distrust, suspicion and antagonism. The authors tested four hypotheses about the reciprocal effects and possible gender differences. The study is based on a longitudinal probability sample of the Swedish workforce (n = 1,095).

Controlling for age, the authors used structural equation modelling and cross-lagged structural regression models to assess the reciprocal effects of a hostile work climate on workplace bullying. Gender was added as a moderator to test two of the hypotheses. The results showed a strong reciprocal effect, meaning there were significant associations between a hostile work climate and subsequent bullying, $\beta = 0.12$, $p = 0.007$, and between baseline bullying and a subsequent hostile work climate, $\beta = 0.15$, $p = 0.002$. The forward association between a hostile work climate and bullying depended on gender, $\beta = -0.23$, $p < 0.001$. The findings point to a possible vicious circle where a hostile work climate increases the risk of bullying, which in turn risks creating an even more hostile work climate. Furthermore, the findings point to gender differences in bullying, showing that the effect of a hostile work climate on workplace bullying was stronger for men.

Sanmartín, R., Garcia, D., Vicent, M., González, C., & García-Fernandez, J. M. (2023). Affective latent profiles and personality dimensions in Spanish children. In D. Garcia (Ed.), *The Affective Profiles Model: 20 Years of Research and Beyond* (pp. 145-158). Cham, Switzerland: Springer.

During the last years, the affective profiles model has been applied to study individual differences among Spanish children in psychological characteristics, such as optimism and pessimism. This research has replicated past studies from adult and adolescent Swedish populations by identifying four profiles using clustering methods on self-reports of children's experience of positive (PA) and negative affect (NA): self-fulfilling (high PA and low NA), high affective (high PA and high NA), low affective (low PA and NA), and self-destructive (low PA and high NA). Nevertheless, only a few studies have investigated individual differences in personality using the affective profiles model as the framework, none of them among children. Personality is, for instance, a topic with an important impact on child development. Moreover, more advanced person-centred techniques for the clustering of profiles need to be tested to confirm these observed patterns of affectivity or profiles. Our aims were the identification of affective profiles through latent class analysis (LCA) and to test individual differences in personality between children with these distinct affective profiles. We verified a three affective profile distribution through LCA, including a new group characterised by neutral affect. Moreover, adaptive personality traits (high Extraversion, high Openness, high Agreeableness, high Conscientiousness, and low Neuroticism) were found to be related to children with a self-fulfilling profile, whereas maladaptive personality traits (e.g. high Neuroticism) were related to children with a self-destructive profile. We suggest that these findings need to be considered in the creation of person-centred programmes for children

that aim to promote well-being, welfare, and positive affect and to reduce stress and negative affect.

Scholten, W., Seldenrijk, A., Hoogendoorn, A., Bosman, R., Muntingh, A., Karyotaki, E., Andersson, G., Berger, T., Carlbring, P., Furmark, T., Bouchard, S., Goldin, P., Kampmann, I., Morina, N., Kocovski, N., Leibing, E., Leichsenring, F., Stolz, T., van Balkom, A., & Batelaan, N. (2023). Baseline severity as a moderator of the waitlist-controlled association of CBT with symptom change in social anxiety disorder: a systematic review and individual patient data meta-analysis. *JAMA Psychiatry*, *80*, 822-831.

Social anxiety disorder (SAD) can be adequately treated with cognitive behavioral therapy (CBT). However, there is a large gap in knowledge on factors associated with prognosis, and it is unclear whether symptom severity predicts response to CBT for SAD. To examine baseline SAD symptom severity as a moderator of the association between CBT and symptom change in patients with SAD. For this systematic review and individual patient data meta-analysis (IPDMA), PubMed, PsycInfo, Embase, and the Cochrane Library were searched from January 1, 1990, to January 13, 2023. Primary search topics were social anxiety disorder, cognitive behavior therapy, and randomized controlled trial. Inclusion criteria were randomized clinical trials comparing CBT with being on a waiting list and using the Liebowitz Social Anxiety Scale (LSAS) in adults with a primary clinical diagnosis of SAD. Authors of included studies were approached to provide individual-level data. Data were extracted by pairs of authors following the Preferred Reporting Items for Systematic Reviews and Meta-analyses reporting guideline, and risk of bias was assessed using the Cochrane tool. An IPDMA was conducted using a 2-stage approach for the association of CBT with change in LSAS scores from baseline to posttreatment and for the interaction effect of baseline LSAS score by condition using random-effects models. The main outcome was the baseline to posttreatment change in symptom severity measured by the LSAS. A total of 12 studies including 1246 patients with SAD (mean [SD] age, 35.3 [10.9] years; 738 [59.2%] female) were included in the meta-analysis. A waiting list-controlled association between CBT and pretreatment to posttreatment LSAS change was found ($b = -20.3$; 95% CI, -24.9 to -15.6; $P < .001$; Cohen $d = -0.95$; 95% CI, -1.16 to -0.73). Baseline LSAS scores moderated the differences between CBT and waiting list with respect to pretreatment to posttreatment symptom reductions ($b = -0.22$; 95% CI, -0.39 to -0.06; $P = .009$), indicating that individuals with severe symptoms had larger waiting list-controlled symptom reductions after CBT (Cohen $d = -1.13$ [95% CI, -1.39 to -0.88] for patients with very severe SAD; Cohen $d = -0.54$ [95% CI, -0.80 to -0.29] for patients with mild SAD). In this systematic review and IPDMA,

higher baseline SAD symptom severity was associated with greater (absolute but not relative) symptom reductions after CBT in patients with SAD. The findings contribute to personalized care by suggesting that clinicians can confidently offer CBT to individuals with severe SAD symptoms.

Semonella, M., Bertuzzi, V., Dekel, R., Andersson, G., Pietrabissa, G., & Vilchinsky, N. (2023). Applying dyadic digital psychological interventions for reducing caregiver burden in the illness context: A systematic review and a meta-analysis protocol. *BMJ Open*, *13*, e070279.

Providing informal care to one's romantic partner who is ill may become a highly distressing and demanding task. Based on the innovative dyadic coping model, several support interventions have been developed to alleviate informal caregivers' burden, including both caregivers' and care receivers' needs. Considering the unique challenges characterising the caregiving phenomenon, such as geographical barriers and time restrictions, digital solutions should be considered. However, there is a lack of research examining the effectiveness of dyadic digital solutions. Thus, this review aims to examine the existing literature on the efficacy of dyadic digital psychological interventions designed for caregivers and their care-receivers couples within the illness context.

Randomised controlled trials targeting caregivers' burden among dyads of informal caregivers and care receivers will be identified via an electronic search of the following databases: PubMed, Embase, the Cochrane Library, Cinhal, Scopus, PsycINFO, MEDLINE and supplemented by hand searching of previous systematic reviews. The search will be undertaken following the PICO (population, intervention, comparison and outcome) elements. If possible, a meta-analysis will be conducted to examine: (1) the effectiveness of dyadic digital psychological interventions for reducing caregivers' burden (primary outcome) among caregivers who are in a romantic relationship with the care receivers; (2) the effectiveness of dyadic digital psychological interventions on secondary outcomes such as anxiety, depression, stress, quality of life, well-being and self-efficacy among caregivers and care receivers; and (3) moderating effects of clinical and methodological factors on caregivers' burden. Prior to inclusion in the review, retrieved papers will be critically appraised by two independent reviewers. The Cochrane Risk of Bias tool will assess the risk of bias for randomised controlled trials.

Skagenholt, M., Lyons, I. M., Skagerlund, K., & Träff, U. (2023). Connectome-based predictive modeling indicates dissociable neurocognitive mechanisms for numerical order and magnitude processing in children. *Neuropsychologia*, *184*, 108563.

Symbolic numbers contain information about their relative numerical cardinal magnitude (e.g., $2 < 3$) and ordinal placement in the count-list (e.g., 1, 2, 3). Previous research has primarily investigated magnitude discrimination skills and their predictive capacity for math achievement, whereas numerical ordering has been less systematically explored. At approximately 10-12 years of age, numerical order processing skills have been observed to surpass cardinal magnitude discrimination skills as the key predictor of arithmetic ability. The neurocognitive mechanisms underlying this shift remain unclear. To this end, we investigated children's (ages 10-12) neural correlates of numerical order and magnitude discrimination, as well as task-based functional connectomes and their predictive capacity for numeracy-related behavioral outcomes. Results indicated that number discrimination uniquely relied on bilateral temporoparietal correlates, whereas order processing recruited the bilateral IPS, cerebellum, and left premotor cortex. Connectome-based models were not cross-predictive for numerical order and magnitude, suggesting two dissociable mechanisms jointly supported by visuospatial working memory. Neural correlates of learning and memory were predictive of age and arithmetic ability, only for the ordinal task-connectome, indicating that the numerical order mechanism may undergo a developmental shift, dissociating it from mechanisms supporting cardinal number processing.

Sonesson, S., Dahlström, Ö., Panagodage Perera, N. K., & Hägglund, M. (2023). Risk factors for injury and illness in youth floorball players – a prospective cohort study. *Physical Therapy in Sport*, *59*, 92–102.

The objective was to investigate risk factors for injury and illness in female and male youth floorball players (12-17 years) during a 26-week floorball season. This was a prospective cohort study in a recreational youth sport setting with 471 players (142 females) 12-17 years. The main outcome measures were measured by a weekly survey including questions about stress, sleep quality, well-being, sport exposure and average weekly rating of perceived exertion (RPE). Acute:chronic workload ratio (ACWR) was calculated. The Oslo Sports Trauma Research Center questionnaire on health problems was used. Predictors of new injury and illness were examined using multi-level logistic regression models with weekly measures nested within individuals. Higher stress, poorer sleep quality and well-being increased the odds of a new injury in the subsequent week by 8% (2.0-13.5%), 10% (4.2-15.9%) and 8% (2.4-13.5%) per 1 unit increase. Higher stress,

and poorer well-being increased the odds of illness by 8% (2.6-12.6%), and 12% (7.2-16.6%). ACWR below 0.8 or above 1.3 increased the odds of illness by 34% (4.9-70.8%). Perceived stress, well-being, and sleep quality were associated with injury and illness occurrence in the subsequent week. ACWR outside the range 0.8-1.3 was associated with illness the subsequent week.

Stén, G., Ayers, S., Malmquist, A., Nieminen, K. & Grundström, H. (2023). Assessment of maternal PTSD following childbirth: Psychometric properties of the Swedish version of City Birth Trauma Scale. *Psychological Trauma, 15*, 1153-1163.

City Birth Trauma Scale (City BiTS) is an instrument designed to evaluate and diagnose postpartum posttraumatic stress disorder (PTSD) according to the 5th edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-5). No validated Swedish instrument exists to measure postpartum PTSD according to DSM-5. Therefore, the primary aim of this study was to assess the psychometric properties of the Swedish version of the City BiTS (City BiTS-Swe) and to examine the latent factor structure of postpartum PTSD. The secondary aim was to report the Swedish prevalence of PTSD following childbirth. A total of 619 women, who had given birth at five clinics in the past 6–16 weeks, completed an online version of City BiTS-Swe and the Edinburgh Postnatal Depression Scale (EPDS). Additionally, sociodemographic and medical data were collected. A second questionnaire was answered by 110 women to examine reliability over time. The confirmatory factor analysis using the two-factor model gave best fit to the data. We found a high internal consistency ($\alpha = .89-.87$) and good test–retest reliability (ICC = 0.53–0.90). Divergent reliability with EPDS showed significant correlations with satisfying results for the subscale birth-related symptoms ($r = .41$). We also found discriminant validity concerning mode of birth, parity, gestational age, mental illness, history of traumatic childbirth, and history of traumatic event as expected. The prevalence of PTSD was 3.8%. The City BiTS-Swe is a valid and reliable instrument to assess and diagnose PTSD following childbirth.

Strid, K., & Heimann, M. (2023). Attention: A prerequisite for learning. In Tierney, R.J., Rizvi, F., & Erkican, K. (Eds.), *International Encyclopedia of Education*, vol. 6 (pp. 117-126). Elsevier

A child's ability to direct his or her attention drives awareness; only objects and events attended to will enter the child's mind. In this sense, attention processes are essential for learning and cognitive development. Attention influences and is, in turn, influenced by various brain systems, an interaction that creates priorities affecting both perception and action. Thus, alertness and the way attention

regulates, or is regulated by, brain functions becomes highly relevant for all domains of learning. Without attention it becomes difficult, if not impossible, to take in new and important information. We, adults and children, are active in selecting what to attend to and what to ignore – a process that becomes more and more voluntary during development.

Strömbäck, C., Lindkvist, E., & Västfjäll, D. (2023). Individual differences in environmental wellbeing and pro-environmental behaviors explained by self-control. *Frontiers in Psychology, 14*, 1462.

Climate change is an increasing problem, with more extreme weather conditions and rising temperatures. To fulfill the temperature goals of the Paris agreement a societal change is needed, a change that requires a shift of lifestyle from all of us. If we want to change our behaviors to more sustainable ones, we need to sacrifice substantial things today to improve a future, which often seems distant and abstract. People with high level of self-control have been shown to have a better ability to visualize future events, which makes self-control an interesting trait to look at in relation to pro-environmental behavior. The aim of this study was to examine how self-control correlates with environmental well-being and environmental behavior. An internet-based survey was sent to a representative Swedish sample (n = 602). The respondents were asked to fill out a newly developed scale measuring their anxiety and security regarding environmental matters (environmental wellbeing), as well as indicate how often they engage in six different pro-environmental behaviors (e.g., turning lights off when leaving the room). Additionally, data on the respondents' gender, age, political orientation, and self-control was collected. Our results suggest a positive correlation between self-control and environmental wellbeing and a weaker, but still positive, correlation between self-control and some pro-environmental behaviors. Additionally, respondents who identified themselves as politically left had lower environmental wellbeing, while men had higher environmental wellbeing, but behaved less environmentally friendly. Thus, our results suggest that political orientation was a better predictor of sound environmental behavior than subjective self-control was.

Sundqvist, A., Koch, F. S., Birberg-Thornberg, U., Barr, R., & Heimann, M. (2023). A longitudinal study of the relationship between children's exposure to screen media and vocabulary development. *Acta Paediatrica, 113*, 517-522.

This study addresses the scarcity of longitudinal research on the influence of screen media on children. It aims to explore the longitudinal relationship between children's vocabulary development and their exposure to screen media. The study,

initiated in 2017, included 72 children (37 boys) in Östergötland, Sweden, at three key developmental stages: preverbal (9.7 months), early verbal (25.5 months) and preliterate (5.4 years). Parents completed online surveys at each time point, reporting their child's screen time. At 10 months and 2 years, age-appropriate vocabulary assessments were conducted online. At age 5, children's vocabulary was laboratory assessed. Correlational analysis revealed a negative relationship between language scores and screen media use across all time points. Furthermore, a cross-lagged panel model demonstrated that screen media use showed significant continuity over time, with screen use at age 2 predicting language development at ages 2 and 5. This longitudinal study, spanned from 9 months to 5 years of age, established a predictive negative association between children's exposure to screen media and their vocabulary development. These findings underscore the need to consider the impact of screen media on early childhood development and may inform guidelines for screen media use in young children.

Svanholm, F., Björk, M., Löfgren, M., Gerdle, B., Hedevik, H., & Molander, P. (2023). Work Interventions within interdisciplinary pain rehabilitation programs (IPRP) - Frequency, patient characteristics, and association with self-rated work ability. *Journal of Pain Research*, 16, 421–436.

Interdisciplinary pain rehabilitation programs (IPRPs) help people with chronic pain improve their health and manage their work; however, the way IPRPs address sick leave could be improved. Although work interventions can be a part of IPRP, it is not well known how and to what extent. This study explored the frequency of work interventions and the characteristics of patients who participate in work interventions as part of IPRP at specialist pain rehabilitation departments in Sweden. In addition, this study explored the association between participation in work interventions and change in patients' self-rated work ability after IPRP. Data were from the Swedish quality registry for pain rehabilitation (SQRP), which includes 3809 patients between 2016 and 2018, were analysed with descriptive statistics and regression analyses. The results indicated a high participation rate in work interventions (90%). Some differences were evident concerning characteristics of patients who participated in different work interventions. The return-to-work (RTW) plan, the most frequently used work intervention, had the strongest association with change in self-rated work ability after IPRP. However, the effect sizes were small, and the initial score best explained the change. Furthermore, there were differences between employed and unemployed patients and employment had a positive association with change in self-rated work ability. More research is needed to understand IPRP's mechanisms and work interventions to support patients with chronic pain, reduce

sick leave, and manage work. Employment status needs to be considered and interventions should be tailored to match the individual needs.

Thornberg, R., Forsberg C., & Hammar Chiriac, E. (2023). The association between student-teacher relationship quality and school liking: A small-scale 1-year longitudinal study. *Cogent Education*, 10, 2211466.

This 1-year longitudinal study examined the association between student-teacher relationship quality and school liking in a sample of 234 students from two public schools in Sweden, who completed an online questionnaire on two separate occasions. The age range was 9–15 years in Time 1 and 10–16 years in Time 2. A path analysis showed that students who were younger, liked their school more, and had more positive, warm, and supportive relationships with their teachers were more inclined to score high in school liking one year later. In addition, younger students and students who liked their school and had better relationships with their teachers at Time 1 were inclined to have better relationships with their teachers one year later.

Timpka, T., Fagher, K., Bargaría, V., Andersson, C., Jacobsson, J., Gauffin, H., Hansson, P.-O., Adami, P. E., Bermon, S., & Dahlström, Ö. (2023). Injury acknowledgement by reduction of sports load in world-leading athletics (track and field) athletes varies with their musculoskeletal health literacy and the socioeconomic environment. *British Journal of Sports Medicine*, 57, 849–855.

Although injury burden prompts elite athletics (track and field) athletes to engage in injury management, little is known about their health literacy. We investigated musculoskeletal (MS) health literacy in world-leading athletics athletes and associations with prechampionship injury acknowledgement by reduction of training load in different socioeconomic environments. Adult and youth athletics athletes (n=1785) preparing for World Championships were invited to complete the Literacy in Musculoskeletal Problems instrument and report acknowledgement of injury by reduction in training load during prechampionship tapering. Their socioeconomic standing was estimated through the Human Development Index of their home country. Demographic differences were examined using χ^2 tests and determinants of injury acknowledgement assessed using logistic regression. Complete data were obtained from 780 athletes (43.7%) with 26% demonstrating sufficient MS health literacy, higher in adult (41%) than youth (13%) athletes ($p < 0.001$). Adult athletes at the uppermost socioeconomic level showed higher MS health literacy than athletes at lower socioeconomic levels ($p < 0.001$). At the uppermost socioeconomic level, adult athletes with

sufficient MS health literacy had increased likelihood of acknowledging an injury by reduction in training load compared with peers demonstrating insufficient MS health literacy (OR=2.45; 95% CI 1.33–4.53). Athletes at middle socioeconomic levels with sufficient MS health literacy had decreased likelihood for acknowledging an injury during tapering (OR=0.29; 95% CI 0.11–0.78). The prevalence of sufficient MS health literacy in world-leading athletics athletes is low. Associations between MS health literacy and injury acknowledgement in these athletes vary with the resourcefulness of the socioeconomic environment, implying that health literacy and resources for medical and performance support should be ascertained concurrently.

Tinghög, G., Koppel, L., & Västfjäll, D. (2023). Dual-process theory is Barbapapa. *Behavioral and Brain Sciences*, 46, e144.

The biggest benefit of dual-process theory lies in its role as a benchmark theory that, regardless of its empirical plausibility, serves as a starting point for better and more domain-specific models. In this sense, dual-process theory is the Barbapapa of psychological theory – a blob-shaped creature that can be reshaped and adapted to fit in the context of any human behavior.

Truskauskaitė-Kunevičienė, I., Dumarkaitė, A., Petrauskaitė, G., Andersson, G., Brailovskaia, J., Karatzias, T., Margraf, J., & Kazlauskas, E. (2023). ICD-11 PTSD and complex PTSD in Lithuanian university students: Prevalence and associations with trauma exposure. *Psychological Trauma*, 15, 772-780.

Young adults are at high risk for developing mental disorders. Moreover, trauma exposure and trauma-related disorders in emerging adulthood are highly prevalent. The study aimed to explore the prevalence of traumatic experiences, probable ICD-11 posttraumatic stress disorder (PTSD), probable complex PTSD (CPTSD), and links between trauma exposure and traumatic stress reactions among first-year university students in Lithuania. In total, 1,626 university students from Lithuania, 68.2% female, mean age 19.09 (SD = 1.05) years, were recruited for the study. Probable ICD-11 PTSDs were measured using the self-report International Trauma Questionnaire (ITQ). A majority (77.2%) of young adults had been exposed to traumatic experiences. The prevalence of probable ICD-11 PTSD and CPTSD in the total sample was 4.6% and 3.4%, respectively. Both PTSD and CPTSD were associated with cumulative lifetime trauma experiences. CPTSD was related to sexual trauma, whereas PTSD was linked to single traumatic incidents, like a physical assault. Both probable PTSD and probable CPTSD were associated with physical and sexual abuse in childhood. The findings of our study show that nearly 8 in 10 university students were

exposed to trauma at the beginning of their studies. The prevalence of probable PTSD/CPTSD was comparable to other studies conducted on the general population and university students.

Träff, U., Skagerlund, K., Östergren, R., & Skagenholt, M. (2023). The importance of domain-specific number abilities and domain-general cognitive abilities for early arithmetic achievement and development. British Journal of Educational Psychology, 93, 825–841.

Children's numerical and arithmetic skills differ greatly already at an early age. Although research focusing on accounting for these large individual differences clearly demonstrates that mathematical performance draws upon several cognitive abilities, our knowledge concerning key abilities underlying mathematical skill development is still limited. Two aims were addressed: Firstly, to identify key cognitive abilities contributing to children's development of early arithmetic skills. Secondly, to examine the extent to which early arithmetic performance and early arithmetic development rely on different or similar constellations of domain-specific number abilities and domain-general cognitive abilities. One hundred and thirty-four Swedish children (Mage = 6 years and 4 months, SD = 3 months, 74 boys) participated in this study. Verbal and non-verbal logical reasoning, non-symbolic number comparison, counting knowledge, spatial processing, verbal working memory, and arithmetic were assessed. Twelve months later, arithmetic skills were reassessed. A latent change score model was computed to determine whether any of the abilities accounted for variations in arithmetic development. Arithmetic performance was supported by counting knowledge, verbal and non-verbal logical reasoning, and spatial processing. Arithmetic skill development was only supported by spatial processing. Results show that young children's early arithmetic performance and arithmetic development is supported by different cognitive processes. The findings regarding performance supported Fuchs et al.'s model (2010b) but the developmental findings did not. The developmental findings align partially to Geary et al.'s (2017) hypothesis stating that young children's early arithmetic development is more dependent upon general cognitive abilities than number abilities.

Törnqvist, T., Ekstedt, M., Wiggins, S., & Abrandt Dahlgren, M. (2023). Connecting knowledges: First-year health care students' learning in early interprofessional tutorials. *Journal of Interprofessional Care*, 37, 758-766.

Collaboration across professional boundaries is an essential aspect of health care, and interprofessional education (IPE) is a common way to help increase students' collaborative abilities. Research on how and when IPE should be arranged in a curriculum remains, however, inconclusive. How students actually develop interprofessional competencies have been difficult to demonstrate and is still an under-researched area. Studying IPE in context is therefore important to understand its full complexity. This paper examines how students work with scenarios from professional health care contexts when learning together in interprofessional problem-based learning tutorials during the first year of undergraduate education. The data are video-recorded tutorials of students from medicine, nursing, occupational therapy, speech and language pathology, and physiotherapy programmes. The analysis focuses on students' discussing their readings of the literature. Drawing on "Communities of Practice," findings show that students discuss and connect professional knowledge, with "brokers" (the tutors) and "boundary objects" (scenarios) supporting the emergence of students' professional knowledge. The scenarios, as boundary objects, also enabled the students to turn into brokers themselves. The paper contributes to research on interprofessional learning and offers support for implementing IPE in the early stages of undergraduate education.

Vázquez, I., Gato, J., Coimbra, S., Barrientos, J., Tasker, F., Miscioscia, M., Cerqueira-Santos, E., Malmquist, A., Seabra, D., Leal, D., Houghton, M., Poli, M., Gubello, A., Miranda Ramos, M., Guzmán, M., Urzúa, A., Ulloa, F., & Wurm, M. (2023). Psychological adjustment profiles of LGBTQ+ young adults residing with their parents during the COVID-19 pandemic: An international study. *International Journal of Environmental Research and Public Health*, 20, 3188.

The COVID-19 pandemic has been associated with poor mental health symptoms, particularly among vulnerable populations such as LGBTQ+ individuals. In the present study, we aimed to (i) identify different psychological adjustment profiles among LGBTQ+ young adults during the COVID-19 pandemic and compare LGBTQ+ young adults in relation to (ii) sociodemographic characteristics and COVID-19-related experiences and (iii) the internal and external protective resources associated with each adjustment profile. An online questionnaire was administered to 1699 LGBTQ+ young adults

from six countries (Brazil, Chile, Italy, Portugal, Sweden, and the UK). A cluster analysis was conducted, and four profiles of psychological adjustment were identified: unchallenged, resilient, distressed, and at-risk. The at-risk cluster scored lowest in social support (particularly from family). The profiles of participants who experienced the highest levels of pandemic adversity (at-risk and resilient) comprised mostly South American participants, those under lockdown at the time of survey completion, those who self-identified as transgender and non-binary, and those with a plurisexual sexual orientation. Interventions should consider strategies to help young adults maintain support systems and reinforce the value of positive family relationships. Specific groups within the LGBTQ+ community that seem to be in a particularly vulnerable situation may need additional tailored support.

Wall, H., Magnusson, K., Hellner, C., Andersson, G., Jayaram-Lindström, N., & Rosendahl, I. (2023). The evaluation of a brief ICBT program with therapist support for individuals with gambling problems in the context of a gambling helpline, a randomized pilot trial. *Pilot and Feasibility Studies*, 9, 26.

Gambling helplines are a natural way of first contact for individuals with gambling problems. However, few studies have evaluated the feasibility and effectiveness of brief interventions in a gambling helpline. To reduce this knowledge gap, this study evaluated the feasibility of an online cognitive behavioral therapy (ICBT) program in the context of a gambling helpline as a first step towards a full-scale RCT. This is a two-group parallel randomized controlled pilot trial where the participants were randomized to either a brief four-module ICBT program (n = 22) or a control group (n = 21). Participants were followed up weekly during the intervention, post intervention, and 6 weeks upon completion of intervention. A total of 43 self-identified individuals with gambling problems (scoring 3 or more on the Problem Gambling Severity Index) were recruited via the Swedish national gambling helpline, 59% females, mean age 43.7 years. Feasibility of the procedure and intervention (i.e., recruitment pace, attrition, program engagement, and satisfaction) were the primary outcomes; treatment effect (net gambling losses) was the secondary outcome. Approximately 2 participants per week were randomized, and retention was low, with 47% lost to follow-up at the 6-week follow-up time-point. Most participants engaged in the online modules (86%) and rated their overall satisfaction with the program as high (7.5 out of 10). Both groups decreased their weekly gambling losses at both follow-up time-points, but the between-group comparisons were inconclusive. It is not advisable to conduct a full-scale RCT based on the results from this pilot study. Future studies in a gambling helpline should consider

interventions that are more suited to be incorporated in a gambling helpline and identify ways to increase participant engagement.

Wallsten, D., Norell-Clarke, A., Anniko, M., Eriksson, O., Lamourín, V., Halldin, I., Kindbom, T., Hesser, H., Watkins, E., & Tillfors, M. (2023). Treatment of worry and comorbid symptoms within depression, anxiety, and insomnia with a group-based rumination-focused cognitive-behaviour therapy in a primary health care setting: a randomised controlled trial. *Frontiers in Psychology, 14*, 1196945.

Repetitive negative thinking (RNT) has been described as a maintaining transdiagnostic factor for psychopathology within the areas of depression, anxiety and insomnia. We investigated the effects of rumination-focused cognitive-behaviour therapy (RF-CBT) in a group format at a primary health care centre on symptoms of depression, anxiety, insomnia, RNT, and quality of life. The participants presented clinical symptom levels of worry and at least two disorders among anxiety disorders, major depressive disorder, and insomnia disorder. A randomised controlled superiority parallel arm trial was used. 73 participants were included and randomised in pairs to either group-administered RF-CBT or a waiting list condition. The primary outcomes were self-rated worry and transdiagnostic symptoms (depression, anxiety, and insomnia). Intention-to-treat analyses of group differences were conducted using linear mixed models. Adverse side effects and incidents were presented descriptively. Group RF-CBT significantly reduced self-reported insomnia at post-treatment and self-reported insomnia and depression at the 2 month-follow-up, relative to the wait-list control group. There was no significant difference in change in RNT, anxiety, or quality of life. The current study suggests that group-administered RF-CBT may be effective for insomnia and potentially effective for depression symptomatology. However, the study was underpowered to detect small and moderate effects and the results should therefore be interpreted with caution.

Watson, D., Gustafsson, H., & Lundqvist, C. (2023). Working with perfectionistic athletes in sport. An acceptance and commitment therapy perspective. In A Hill. *The Psychology of Perfectionism in Sport, Dance, and Exercise* (pp. 285-304). Routledge Routledge.

In this chapter we draw on our applied experiences and research to highlight how perfectionistic athletes can be supported using Acceptance and Commitment Therapy (ACT). The first part of the chapter describes ACT and research that has examined its use for perfectionism. In keeping with other chapters in this section of the book, the second part of the chapter presents a case example of a

perfectionistic athlete. Our case example is an aspiring young athlete who in making the transition to the senior performance squad has begun to experience emotional and behavioural problems. Our novel contribution to previous work of this kind is our focus on ACT. Few studies have adopted ACT interventions to reduce perfectionism even though we believe it to be a valuable way of doing so. In addition, there are even fewer exemplars of how to implement this type of intervention in sport. As such, our intention is that the chapter serves as a guide for practitioners unfamiliar with ACT and is a useful addition to other illustrative examples of how to work effectively with perfectionistic athletes.

Wienicke, F. J., Beutel, M. E., Zwerenz, R., Elmar Brähler, E., Fonagy, P., Luyten, P., Constantinou, M., Barber, J. P., McCarthy, K. S., Solomonov, N., Cooper, P. J., De Pascalis, L., Johansson, R., Andersson, G., Lemma, A., Town, J. M., Abbass, A. A., Ajilchi, B., Connolly Gibbons, M. B., López-Rodríguez, J., Villamil-Salcedo, V., Maina, G., Rosso, G., Twisk, J. W. R., Burk, J. W., Spijker, J., Cuijpers, P., & Driessen, E. (2023). Efficacy and moderators of short-term psychodynamic psychotherapy for depression: A systematic review and meta-analyses of individual participant data. *Clinical Psychology Review, 101*, 102269.

Short-term psychodynamic psychotherapy (STPP) is frequently used to treat depression, but it is unclear which patients might benefit specifically. Individual participant data (IPD) meta-analyses can provide more precise effect estimates than conventional meta-analyses and identify patient-level moderators. This IPD meta-analysis examined the efficacy and moderators of STPP for depression compared to control conditions. PubMed, PsycInfo, Embase, and Cochrane Library were searched September 1st, 2022, to identify randomized trials comparing STPP to control conditions for adults with depression. IPD were requested and analyzed using mixed-effects models. IPD were obtained from 11 of the 13 (84.6%) studies identified ($n = 771/837$, 92.1%; mean age = 40.8, SD = 13.3; 79.3% female). STPP resulted in significantly lower depressive symptom levels than control conditions at post-treatment ($d = -0.62$, 95%CI [-0.76, -0.47], $p < .001$). At post-treatment, STPP was more efficacious for participants with longer rather than shorter current depressive episode durations. These results support the evidence base of STPP for depression and indicate episode duration as an effect modifier. This moderator finding, however, is observational and requires prospective validation in future large-scale trials.

Wiggins, S. (2023). How infant food likes become established as knowledge: Parental food assessments during infant mealtimes in the home. *Appetite*, 184, 106489

Early infancy is a critical period for the development of food likes and dislikes, but very little is known about the role of the social context and parent-child interaction within this process, and even less about what happens in the home environment. The current paper addresses this issue by examining how and when parents utter food assessments about their infants' eating practices during mealtimes in the home, and the practices through which infant likes become established as knowledge. A data corpus of 77 video-recorded infant mealtimes from six infants (aged 5-9 months) and their parents was analysed using discursive psychology, with a specific focus on the use of object-side and subject-side assessments. Data were recorded in English-speaking family homes in Scotland and Sweden. The analysis highlights three key findings: (1) infants' interactional rights to assess food are invoked during first tastes, (2) infants' food likes are established through anchoring in family food preferences and as shared knowledge among family members, and (3) infants' potential food dislikes are challenged by parents using object-side assessments and claims about previous likes. Parents thus play a crucial role in the establishment of infant food likes through the formulation of subject-side category assessments during early infant mealtimes. The research suggests that more focus should be placed on examining infant eating practices as collaborative and interactional events in everyday contexts.

Wiggins, S., & Keevallik, K. (2023). Transformations of disgust in interaction: The intertwining of face, sound, and the body. *Social Interaction*, 6, <https://doi.org/10.7146/si.v6i2.134841>

Expressions of disgust have typically been studied as isolated faces or voices but rarely as embodied practices in everyday interaction. Building on multimodal interactional research on emotions and sensoriality, this paper addresses disgust as a unique topic at the intersection between psychological theory and interactional facts. A case of an adult enacting post-consumption disgust is analysed, detailing the transformation of the facial, auditory, and embodied expressions across interactional sequences and in collaboration with others. The paper showcases the variability of disgust expressions and their involvement in social actions such as displaying stamina or stoicism toward challenges.

Willemsen, A., Wiggins, S., & Cromdal, J. (2023). Young children's mealtimes and eating practices in early childhood education and care: A scoping review of 30 years of research from 1990 to 2020. *Educational Research Review*, 38, 100503.

Young children's eating practices and mealtimes within early childhood education and care have attracted considerable attention over the past 30 years, with an increasing focus on nutrition and family-style meals. Research in this field is typically conducted in parallel strands that would benefit from an overview perspective and critical discussion. This article addresses that need, reviewing international research from 166 empirical papers published between January 1990 to December 2020. A scoping literature review was used to inductively identify three core areas of research: i) factors influencing children's eating practices, ii) teacher's and children's perspectives on mealtimes, and iii) situated meal practices. Key trends included a focus on repeated exposure, modeling behavior, teachers' feeding practices, rules and norms vs. playfulness, and participation in the meal as event. Future research could work across disciplinary boundaries and combine a focus on nutritional concerns with an examination of the multimodal interaction within the mealtimes.

Woodward, A., Burchert, S., Barry, A. S., Broerse, J. E. W., Sondorp, E., Bold, A., Ruberl, A., Hessling, J. M., Knaevelsrud, C., Roberts, B., Fuhr, D. C., Ventevogel, P., Hosny, N., *Lindegaard, T.*, Shahnava, S., Sijbrandij, M., Cuijpers, P., McKee, M., & Dieleman, M. A. (2023) Scalability of digital psychological innovations for refugees: A comparative analysis in Egypt, Germany, and Sweden. *SSM - Mental Health*, 4, 100231.

E-mental health interventions may offer innovative means to increase access to psychological support and improve the mental health of refugees. However, there is limited knowledge about how these innovations can be scaled up and integrated sustainably into routine services. This study examined the scalability of a digital psychological intervention called Step-by-Step (SbS) for refugees in Egypt, Germany, and Sweden. We conducted semi-structured interviews (n = 88) with Syrian refugees, and experts in SbS or refugee' mental health systems in the three countries. Data collection and analysis were guided by a system innovation perspective. Interviewees identified three contextual factors that influenced scalability of SbS in each country: increasing use of e-health, the COVID-19 pandemic, and political instability. Nine factors lay at the interface between the innovation and potential delivery systems, and these were categorised by culture (ways of thinking), structure (ways of organising), and practice (ways of doing).

Factors related to culture included: perceived need and acceptability of the innovation. Acceptability was influenced by mental health stigma and awareness, digital trust, perceived novelty of self-help interventions, and attitudes towards non-specialist (e-helper) support. Factors related to structure included financing, regulations, accessibility, competencies of e-helpers, and quality control. Factors related to practice were barriers in the initial and continued engagement of end-users. Many actors with a potential stake in the integration of SbS across the three countries were identified, with nineteen stakeholders deemed most powerful. Several context-specific integration scenarios were developed, which need to be tested. We conclude that integrating novel e-mental health interventions for refugees into routine services will be a complex task due to the many interrelated factors and actors involved. Multi-stakeholder collaboration, including the involvement of end-users, will be essential.

Zahlquist, L., Hetland, J., Notelaers, G., *Rosander, M.*, & Einarsen, S. V. (2023). When the going gets tough and the environment is rough: The role of departmental level hostile work climate in the relationships between job stressors and workplace bullying. *International Journal of Environmental Research and Public Health*, 20, 4464.

In line with the work environment hypothesis, the present study investigates whether department-level perceptions of hostile work climate moderate the relationship between psychosocial predictors of workplace bullying (i.e., role conflicts and workload) and exposure to bullying behaviours in the workplace. The data were collected among all employees in a Belgian university and constitutes of 1354 employees across 134 departments. As hypothesized, analyses showed positive main effects of role conflict and workload on exposure to bullying behaviours. In addition, the hypothesized strengthening effect of department-level hostile work climate on the relationship between individual-level job demands and individual exposure to bullying behaviours was significant for role conflict. Specifically, the positive relationship between role conflict and exposure to bullying behaviours was stronger among employees working in departments characterized by a pronounced hostile work climate. In contrast to our predictions, a positive relationship existed between workload and exposure to bullying behaviours, yet only among individuals in departments with low hostile work climate. These findings contribute to the bullying research field by showing that hostile work climate may strengthen the impact of role stress on bullying behaviours, most likely by posing as an additional distal stressor, which may fuel a bullying process. These findings have important theoretical as well as applied implications.

Zhao, X., Boersma, K., Gerdle, B., Molander, P., & Hesser, H. (2023). Fear network and pain extent: Interplays among psychological constructs related to the fear-avoidance model. *Journal of Psychosomatic Research*, 167, 111176.

Psychological constructs related to the fear-avoidance model such as fear of movement, pain catastrophizing, and affective distress have been found to be inter-related among patients with chronic pain. However, relationships of these constructs have mostly been examined using regression-based analyses. This cross-sectional study employs a novel analytical approach, network analysis, to illustrate the complex interplays among these variables as well as pain intensity and pain interference. This study utilized the Swedish Quality Registry for Pain Rehabilitation, including data from 10,436 participants (76.0% women; Mage = 45.0 years). Networks were analyzed separately for patients with different pain extents (i.e., numbers of pain locations) as the interplays may differ qualitatively depending on pain extent. We found that patients with a larger pain extent showed a worse clinical presentation (i.e., more depression and anxiety, increased fear of movement and pain interference), and their network differed from the patients with a smaller number of pain extent in terms of how strongly key variables were interconnected. In all network models, pain interference and catastrophizing showed consistently influential roles. Our findings highlight the interactive nature of psychological aspects of pain and how interrelated associations differ depending on pain extent. Findings are discussed based on ideas on how both fear and pain become overgeneralized.

Åkerman, A-K. (2023). Relationally focused specialized foster care: Relational experiences and changes in mental health and adaptive functioning. *Linköping Studies in Arts and Science 858, Linköping Studies in Behavioural Science 253*, Linköping University.

Background: Foster care is a relatively common arrangement when parents are unable to meet the needs of their children. Specialized foster care is sometimes applied in cases when problems are more serious and complex. More knowledge is needed about the effects of such specialized foster care.

Aims: To explore trajectories of change associated with specialized foster care in a treatment model with a relational and mentalization-based orientation, and to develop the understanding of foster children's and their foster parents' experiences of their relationship living in a treatment foster family.

Methods: Children and young people between the ages of 5 and 20 years who received treatment within a specialized foster care model, Treatment By Foster care (TBF), participated in this study. Longitudinal data collected in a naturalistic setting were analyzed quantitatively. In Studies 1 and 2, the number of

participants at baseline varied for different instruments between 76 – 105. The Achenbach System of Empirically Based Assessment (ASEBA) was used to measure how psychiatric symptoms change from the perspectives of the foster children, the foster parents, and teachers. The Adaptive Behavior Assessment System – second edition (ABAS-II) was used to measure adaptive functioning from the foster parents' perspective. Self-ratings by the children and young people of their emotional and social problems were measured with the Beck Youth Inventories of Emotional and Social Impairment (BYI). Data about experiences of the relationship between child and foster parent were collected through repeated individual short interviews/speeches with both children and their foster parents according to Five Minute Speech Sample (FMSS) (n = 14). Interviews/speeches were analyzed using Thematic Analysis (TA).

Results: The ratings of foster parents and foster children differed. The analyses showed a significant reduction in psychiatric symptoms, emotional and social problems according to the self-ratings by the children and young people. According to foster parents and teachers, psychiatric symptoms did not decrease. The baseline ratings of adaptive functioning by foster parents showed that adaptive functioning was considerably below peers from the Swedish non-clinical norm group. Adaptive functioning did improve but not enough to approach or catch up with peers. Analysis of the interviews/speeches generated three main themes containing seven subthemes. Main themes were: No 'real' family, A co-created relationship, and Time. Participants related to a norm for what a 'real' family is and seemed to presuppose that the biological family is the 'real' family. A co-created relationship related to No 'real' family as an answer or a solution. The challenges in the foster family constellation could be overcome by a mutual ambition to build a relationship and by liking each other. Time appeared as a common theme and both as an opportunity and a threat to the relationship. Despite the fact that no interview question concerned the duration of the relationship, the participants described their relationship based on how long they had known each other.

Conclusions: According to the foster children's and young people's self-ratings, their mental health improved, and their social problems decreased. It is likely that the TBF-model contributed to this improved psychological well-being, although causal relationships could not be established without any comparison group. However, the model did not seem to contribute to the foster parents experiencing improvement in the foster children's psychological well-being or adaptive functioning. Based on the results of this thesis, it may be effective to place children and young people in specialized foster care with a relational and mentalization-oriented focus, but the results are not clear-cut. Practice and policies should take greater account of the time aspect in foster care, and work with the aim of increasing clarity and security, and thereby enabling a more stable upbringing for some of society's most vulnerable children. Also, this may make foster parents want to continue their mission. More studies are needed to gain

knowledge about how specialized foster care should be applied. Future studies also need to focus on creating knowledge about which aspects of the treatment are decisive.

Åkerman, A.-K. E., Holmqvist, R., & Falkenström, F. (2023). What changes during specialized foster care? A study on adaptive functioning and emotional and social problems. *Child & Family Social Work, 28*, 405-416.

Various models of specialized foster care have been developed, but research on them is limited. This longitudinal, exploratory study analysed data on adaptive functioning, emotional and social problems and self-concept in a specialized foster care service in Sweden. The focus of the study was on the development of the children and young people in placement. The Adaptive Behaviour Assessment System (ABAS-II) was used to measure adaptive functioning, and the Beck Youth Inventories of Emotional and Social Impairment (BYI) was used to measure self-rated emotional and social problems and self-concept. Self-ratings showed significant improvements in disruptive behaviour, anger, anxiety and depression. Adaptive functioning as rated by foster parents improved but not enough to catch up with the non-clinical norm group. The average adaptive functioning among the participants at baseline was considerably below the Swedish norm group. Similar to the results of a previous study of the same treatment model, children and young people rated improvement while their foster parents did not do so to the same extent. Possible explanations for this are discussed in the paper. The study is limited by the lack of a control group and by data attrition.

Östergren, R., Träff, U., Elofsson, J., Hesser, H., & Samuelsson, J. (2023). Memorization versus conceptual practice with number combinations: their effects on second graders with different types of mathematical learning difficulties. *Scandinavian Journal of Educational Research, 68*, 1155–1170.

The study set out to explore different mathematical difficulties among 877 second-grade children and to test the effect of memorization versus conceptual practices with number combinations. It used a latent profile analysis of baseline measurements of digit writing speed, number combination fluency, multidigit calculation, and number sense skills to identify six latent classes: three mathematical learning difficulty classes, two typical classes, and one high-achieving class. The memorization practice produced superior improvement for all classes of students except the high-achievers class. These results suggest that memorization practice with basic number combinations should not be considered

poor teaching practice. It is important for teachers to incorporate practices with number combinations that focus on speed and memorization, even for children who struggle with mathematics.

Östling, A.-K., & Andersson, G. (2023). Behandling av beteendeproblem. In H. Nyman & A. Bartfai (Eds.), *Klinisk neuropsykologi* (3 ed., pp. 485-496). Lund: Studentlitteratur.

Kapitel som beskriver användning av beteendeterapeutiska principer vid hjärnskaderehabilitering.

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