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**ORAL  
PRESENTATION**

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***SÖZLÜ  
BİLDİRİLER***



## UniVRse: Developing and Evaluating a Virtual Reality CBT Intervention for Students with Social Anxiety

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**Introduction:** Social anxiety is a common mental health difficulty for students who are the first in their family to attend university (i.e. first generation). This social anxiety is the result of imposter feelings and worse preparedness. First-generation students who are socially anxious are less likely to attend and engage with their university studies and the social aspects of university life. Cognitive behaviour therapy (CBT) is an effective intervention for social anxiety but there are a number of barriers preventing first-generation students from accessing traditional CBT – including, long waiting lists and stigma.

**Aims:** We have worked with a group of first-generation students to coproduce a cognitive-behaviour therapy (CBT) intervention using Virtual Reality (VR) called UniVRse. In this talk we will outline the learning acquired during the coproduction process and share the initial findings of our evaluation of UniVRse.

**Methods:** The UniVRse project has two phases: (1) coproduction: we worked with a group of first-generation students to design the UniVRse VR-CBT programme from scratch, making use of graded exposure techniques; and (2) evaluation: we are conducting a pilot randomised controlled trial comparing the effects of UniVRse to a wait list control condition. We will determine the effects of UniVRse on a range of mental health and education outcomes.

**Results and Conclusions:** The trial is still ongoing. The results will be available before the conference. During our coproduction process we have learnt what aspects of university life first generation students find most difficult and the triggers within these. This information has informed the production of the UniVRse programme. Within UniVRse, users are able to enter four different university-based situations and improve their confidence by working through a series of graded steps.

## Understanding and Measuring Stigma, Barriers and Attitudes Associated with Seeking Psychological Help Among Young Adults in Czech Republic

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200 million people in the world experience serious mental health problems and only one third seek professional help. Help-seeking is described as a last resort. Adolescents and young adults have a higher prevalence of mental health problems. Mental health stigmatisation is a key element in the decision making to seek help and is divided into (i) self-stigma (self-stigmatisation) including internal beliefs, low self-esteem, and lower quality of life and (ii) public stigma (social stigma) including stereotypes, beliefs and society's disapproval of help-seeking having a negative effect on help-seeking and our attitudes.

Previous research has been mainly focused on examining the construct of help-seeking, avoidance, and delaying separately and trying to find out why people do not seek help in the right time and what obstacles stand in their way. Barriers are not static and are changing over time and in the stage of help-seeking. Attitudes are closely connected to self-stigma and social stigma and are predicting whether a person will seek professional help. Barriers (stigmatization, a sense of humiliation, insufficient recognition of the problem, preferences, solving it alone and distrust of a professional) and facilitators (previous experience with mental problems, social support and help from others) are factors influencing help-seeking.

The current research on the Czech population of young adults responds to the gap between a person with mental health problems and actual seeking of professional help. The aim of the study is to describe in detail the individual constructs and factors, to understand the person seeking help and to define possible obstacles on this path of seeking help.

A sample of approximately 250 participants (age 18-35) would take part in the online questionnaire, conducted in May-June 2023, and would be administered a demographic questionnaire and four scales measuring attitudes (Attitudes Toward Seeking Professional Psychological Help – Short form), barriers (Barrier to Help Seeking Scale), self-stigma (Self Stigma of Seeking Help) and stigmatization (Perceptions of Stigmatization by Others for seeking help). Firstly, all four scales would be translated into the Czech language. The aim is (I) to determine the validity and reliability of the Czech translation of the scales, (II) to examine the factors of the scales on the Czech population and compare them retrospectively with the results of reliability and validity from the original language of the scales and (III) to examine the connections between attitudes towards seeking, avoidance or delaying the search for professional psychological help due to the demographic and individual differences of the participants, barriers, self-stigmatization and social stigmatization.

We expect to carry out the first study on the given topic in the Czech Republic, to identify and better understand the factors leading to the avoidance of seeking professional help and to reveal the relationships between stigmatization, attitudes and barriers leading to the avoidance or postponement of seeking professional help. The belief is to find out whether the Czech population of young adults differs from the data found on the foreign population in individual constructs, as cultural differences in individual countries were found in previous research.

## The Effect of Femicides on Women: An Experimental Study on the Axis of Trauma Sexism and Affect

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**Introduction:** Sexism causes discrimination and hostile attitudes toward women considering femicides. There were 579 femicides in Turkey last year. That means femicides are a substantial issue in Turkey and may cause traumatic symptoms in women. Traumatic symptoms occur with negative emotions. The aim of the research is to reveal experimentally how femicide affects women considering sexism, trauma, and affect.

**Method:** 96 female participants between the ages of 18 and 35 were included in the study. The participants completed the Post Traumatic Stress Disorder Checklist (PTSDC), the Ambivalent Sexism Inventory (ASI), the State Anger Scale (SAS), and the Positive and Negative Affect Scale in the laboratory. After 48 hours, the participants came back to the laboratory and were exposed to a video about femicides. After the intervention, the participants completed the same scales: PTSDC, ASI, SAS, and PANAS. Paired sample T-test analyses were conducted in order to see the possible effects of the video in accordance with the pretest-posttest design.

**Results:** State anger scores ( $\bar{X}=16.41$   $SS=8.10$ ) increased after the video intervention ( $\bar{X}=26.04$   $SS=8.09$ ). Negative affect ( $\bar{X}=19.81$   $SS=8.13$ ) increased after the video intervention ( $\bar{X}=33.09$   $SS=8.21$ ). Positive affect ( $\bar{X}=34.18$   $SS=8.70$ ) decreased after the video intervention ( $\bar{X}=30.26$   $SS=8.62$ ). Hostile sexism ( $\bar{X}=28.52$   $SS=11.00$ ) decreased after the video intervention ( $\bar{X}=22.88$   $SS=10.69$ ). Benevolent sexism scores ( $\bar{X}=9.88$   $SS=3.68$ ) increased after the video intervention ( $\bar{X}=11.27$   $SS=4.43$ ).

**Discussion:** According to the findings, it was observed that the participants' benevolent sexism, state anger, and negative emotion scores increased significantly after the video intervention whereas positive emotion and hostile sexism scores decreased. On the other hand, no change was observed in trauma scores. Anger is a key point for feminist identity improvement. Negative affects create motivation to fight to prevent femicides. It can be assumed that anger and negative affect have a catalyzing role for women to lean towards the women's movement peeling off from their traditional gender roles.

**Conclusion:** More coverage of femicides in the media creates political pressure to prevent femicides and motivates women to participate in the women's movement.

## Emerging Concepts in Unpredictable Times: Emotional Resilience and Metacognitive Awareness Regarding Childhood Anxiety Disorders

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**Background:** Childhood anxiety disorders can significantly impact a child's social, academic, and emotional development. In children, metacognitive awareness refers to their ability to monitor and regulate their thoughts, feelings, and behaviors. In the context of anxiety disorders, children with higher levels of metacognitive awareness may be better able to recognize their anxious thoughts and feelings and apply coping strategies to manage them. They are also able to identify their strengths and weaknesses, set goals for themselves, and monitor their progress toward achieving those goals. Emotionally resilient children may be better able to cope with the stress and uncertainty that often accompany anxiety, and may be more able to engage in adaptive coping strategies. The study aimed to compare the metacognitive awareness and emotional resilience levels of children with anxiety disorders with healthy controls and to examine the relationship between these concepts and the frequency of anxiety symptoms expressed by parents.

**Objective:** This study aimed to compare the levels of metacognitive awareness and emotional resilience in children with anxiety disorders and healthy controls and to investigate the association between these concepts and anxiety symptoms expressed by parents.

**Methods:** The study included 32 patients diagnosed with anxiety disorders and 30 age- and sex-matched healthy controls. The study groups completed the Metacognitive Awareness Inventory (MAI) and the Resiliency Scales for Children and Adolescents (RSCA), while the parents completed the Revised Child Anxiety and Depression Scale-Parent Form (RCADS-P).

**Results:** The age range of the subjects participating in the study was 7-14 years. The mean age of the group with an anxiety disorder (N: 32) was  $11.5 \pm 2.09$ ; the control group (N: 30) was found to be  $10.45 \pm 1.99$ . The most prominent diagnoses in the anxiety disorder group were generalized anxiety disorder (40.6%), obsessive-compulsive disorder (18.7%), and social anxiety disorder (12.5%). In this study, we found no significant difference in the total scores of the MAI and RSCA between the patient and control groups. However, a positive correlation was found between the RSCA scores and RCADS-P anxiety and total scores ( $p=0.005$ ,  $r=0.371$ ,  $p=0.006$ ,  $r=0.363$ , respectively) in the study group.

**Conclusion:** The study's findings suggest that addressing metacognitive awareness and emotional resilience levels in anxiety disorders at an early stage may contribute significantly to a holistic evaluation of these patients. Additionally, interventions aimed at improving metacognitive awareness and emotional resilience may be mentally protective in anxiety-prone youth. Interventions for childhood anxiety disorders often focus on improving emotional resilience by helping children develop coping skills and strategies, building positive relationships and social support, and creating a safe and supportive environment that fosters resilience. Strategies such as positive thinking, emotional control, and rational decision-making against unpredictable events may help manage the difficulties of daily life.

## Smartphone Applications for Eating Disorders: A Systematic Review and Meta-analysis

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**Introduction:** Smartphone applications are an area of great clinical interest. They can help overcome the barriers that prevent individuals from getting help for an eating disorder (ED), but their effectiveness remains unclear.

**Method:** The online databases Scopus, PubMed, APA PsycArticles, APA PsycINFO, Psychology and Behavioral Sciences Collection, Academic Search Ultimate, Education Source and ERIC were searched for randomized controlled trials (RCTs) that included a psychological intervention delivered through an app and published in peer-reviewed journals between January 2010 and June 2022. We followed the PRISMA guidelines for systematic reviews and meta-analysis and the Cochrane Collaboration methodology for intervention reviews. The Cochrane Risk of Bias Tool assessed the RCTs' methodological quality.

**Results:** Eight RCTs were included in the meta-analysis, and effect sizes with confidence intervals were calculated for the postintervention point. We found large effect sizes concerning binge eating episodes and an overall small effect in global levels of ED symptomology, dietary restraint, drive for thinness and depression. Twelve in 13 apps were developed based on cognitive behavioural therapy principles. Discussion: The results favoured app intervention over control conditions in reducing symptoms related to ED. Self-monitoring was the most common principle, which may indicate that digital self-monitoring could be an excellent alternative to paper-and-pen records.

**Conclusion:** The results suggest that apps could be an effective treatment for ED, but more high-quality RCTs are still needed.

## Measures of Social Stress in Virtual Reality

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**Introduction:** Virtual reality (VR) technology is increasingly used in the assessment and treatment of social-cognitive processes due to its capability to confront individuals with lifelike but highly-controlled social situations, but also due to its capability to automatically monitor complex behavioral variables such as social gaze. However, it remains poorly understood how dispositional and situational factors in artificial social situations are both reflected in behavioral and physiological reactions. Here we assessed subjective and objective markers of social stress (social gaze, pupil size, heart rate, HF-HRV) in individuals in both a socially including and a socially excluding (i.e., socially stressing) virtual situation.

**Method:** 80 participants experienced a Cyberball game in VR where they were included and excluded in a randomized order. Participants were characterized along common facets of psychopathology (social anxiety, anxiety, depression levels). We assessed subjective stress levels, but also eye gaze towards the virtual agents' faces (social gaze), pupil size, heart rate and HF-HRV in a subsequent neutral scene where participants were co-located with the same artificial agents and were free to gaze at their faces or elsewhere.

**Results:** Social exclusion led to moderately enhanced subjective stress and negative mood but not to alterations on objective markers of stress. By contrast, underlying psychopathology levels were associated with substantially stronger alterations on subjective stress markers and were additionally associated with reduced eye gaze at virtual agents' heads, larger pupil size, higher heart rate and reduced high-frequency heart-rate variability. Effects for social anxiety, general anxiety and depression levels were overall similar with largest effects on objective stress markers linked to general anxiety. There were no interactions between underlying psychopathology levels and the situation's inclusiveness on any stress markers.

**Discussion:** Objective stress markers in the present study were linked to psychopathology levels but not to characteristics of the virtual situation (inclusion vs. exclusion). Future research should expand on the capabilities of social stress detection in VR but also more directly compare effects of the Cyberball paradigm with real-world social stressors. Additionally, future research should investigate more closely and in individuals with stronger psychopathology levels if markers of social stress reflect psychopathology levels more generally or can be more specifically linked to individual facets of psychopathology (e.g., internalizing, anxiety). Unlike a majority of current VR research and treatment applications, future settings may more commonly include interactions between real people (e.g., different participants, patients and therapists) located in the same virtual environment (Social VR). Behavioral markers such as social gaze in this environment may exhibit different patterns compared to interactions with artificial agents and should be investigated separately.

**Conclusion:** Objective measures of social stress were linked to a person's psychopathology levels in VR. A particular interesting variable for clinical applications may be social gaze which is assessed automatically with no additional participant burden and can be processed robustly in real-time, thus potentially providing a valuable measure of social stress within VR environments.

## The Safety of Digital Mental Health Interventions: A Systematic Review and Recommendations

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**Background:** Evidence suggests that Digital Mental Health Interventions (DMHIs) for common mental health conditions can be effective. However, these digital interventions, like face-to-face therapies, pose risks to patients.

**Objective:** Review the literature to assess how DMHIs are assessing safety, what risks are reported, and how they are mitigated both in research and post-market. To build on existing recommendations for assessing, reporting, and mitigating safety in DMHI and standardizing practice.

**Method:** Psycinfo, EMBASE, and Medline were searched for studies that address the safety of DMHIs. The inclusion criteria were any study that addressed the safety of a clinical DMHI even if not as a main outcome, in an adult population, and in English. Results were synthesized in the form of tables and percentages. We calculated odds ratios and confidence intervals, wherever published data permitted, to illustrate the use of a single common safety metric across studies.

**Results:** Twenty-three studies were included in this review. While many of the included studies assessed safety by actively collecting adverse events data, over one third did not assess or collect any safety data. The methods and frequency of safety data collection varied widely and very few studies performed any formal statistical analyses. The main treatment-related reported adverse event was deterioration in symptoms. The main method used to mitigate risk was exclusion of high-risk groups. A secondary online search found that six DMHIs were available for users/patients to use (post-market), all of which used indications and contraindications for use to mitigate risk.

**Discussion:** Based on the findings of this review, the authors developed a list of recommendations to improve the quality of safety data in DMHIs: (1) safety assessment as standard- risk and safety should be systematically assessed in every DMHI study, (2) frequency of safety assessments should take place at regular intervals throughout both the intervention and follow-ups, (3) the methods and instruments used to measure safety should be reported in sufficient detail to permit replication, (4) rates of harm should be statistically compared both between study arms and across different studies using standardized quantitative metrics, (5) if deterioration of symptoms is an expected part of treatment, a quantitative threshold identified for defining this as an adverse event, (6) safety and efficacy should be assessed in high-risk groups, with appropriate safeguards, and finally (7) safety data collected during the research phase should be used to inform risk mitigation post-market.

**Conclusion:** This review produced seven specific, measurable and achievable recommendations with the potential to bring immediate impact to the field, were they to be implemented across ongoing and future research. Beyond this, the review highlighted a pressing need for consensus-building research to standardize practice across a number of areas, including measurement, classification, analysis, interpretation and post-market refresh of safety.

## Effectiveness of Cognitive Behavioral Group Therapy, Psychodrama, and Their Integration for Treatment of Social Anxiety Disorder: A Randomized Controlled Trial

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**Background and Objectives:** Although cognitive behavioral group therapy (CBGT) is an effective treatment for social anxiety disorder, many socially anxious patients are still symptomatic after treatment. A possible improvement for CBGT could come from the more experiential group psychotherapy, psychodrama (PD). The integration of CBGT and PD (labeled CBPT) might offer an even more effective treatment than CBGT or PD alone. With the present study, we investigated first whether three kinds of group therapy (CBGT, PD, and CBPT) are superior to a waitlist (WL). Second, we investigated whether CBPT is more effective than CBGT or PD alone.

**Methods:** One hundred and forty-four social anxiety patients were randomly assigned to three active conditions or a WL. After wait, WL-participants were randomized over the active treatment conditions.

**Results:** The results of a multilevel analysis showed that all treatments were superior to WL in reducing social anxiety complaints. Only CBGT and CBPT differed significantly from WL in reducing fear of negative evaluations. There were no significant differences between active conditions in any of the variables after treatment and after six-month follow up, neither were there significant differences in treatment dropout.

**Limitations:** First there is the lack of a long-term follow-up. Second, because of loss of participants, we did not reach the planned numbers in the active treatment groups in comparison to WL. Moreover, this study was not designed as a non-inferiority or equivalence trial.

**Conclusions:** Although the integrative CBPT showed good results, it was not more effective than the other treatments.

**Keywords:** integrative therapies, cognitive behavioral therapy, psychodrama, randomized controlled trial

## Evaluation of a Brief Acceptance Facilitating Intervention and an Internet-Based Training to Increase Self-Esteem in Adults with Body Dysmorphic Symptoms

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**Introduction:** Different barriers contribute to low treatment rates for Body Dysmorphic Disorder (BDD). Although internet-based interventions are considered a low-threshold and effective format, studies report acceptance deficits. For this reason, we evaluated a brief acceptance-facilitating intervention (AFI) for internet-based training addressing self-esteem in individuals with BDD symptoms. Several findings highlight the pronounced negative self-evaluations and the importance of low self-esteem in BDD. Accordingly, the second aim of the project consisted of the evaluation of a two-week internet-based training that focused on the improvement of self-esteem in BDD.

**Method:** Before offering internet-based training, we randomly assigned 46 participants with distinct BDD symptoms to a 6-min animated whiteboard video (AFI,  $n = 21$ ) or a waiting control group ( $n = 25$ ). The AFI, developed in a preceding study, specifically addresses perceived barriers to treatment for BDD and known factors for acceptance of internet-based interventions. Based on the Unified Theory of Acceptance and Use of Technology, we examined the between-group effects on acceptance, performance expectancy, social influence, and effort expectancy. After the clinical diagnostic interview, 38 participants ( $n = 14$  fulfilling fully diagnostic criteria for BDD) entered the two-week internet-based training. The online training consisted of psychoeducational content and daily practical exercises. In the beginning, after one week, and at the end of the training participants completed questionnaires on self-esteem, BDD symptom severity, body image dissatisfaction, and depressive symptoms.

**Results:** The AFI led to greater improvements in acceptance, effort expectancy, facilitating conditions, and slightly in social influence than the control group. While there was no effect of AFI on training uptake or adherence, higher self-reported acceptance was still associated with higher adherence. The overall dropout from the online training was 37% ( $n = 14$ ), but 88% of completers attended every day of training. The completer analyses showed significant improvements in the three facets of appearance-related, performance-related, and social self-esteem, in BDD symptom severity, in body image dissatisfaction, and in depressive symptoms at post-treatment. There was an additional gain by the second training week in appearance-related self-esteem and BDD symptom severity.

**Discussion:** The results suggest that a specifically designed, brief video improves self-reported acceptance and other related factors. Acceptance in the sample was already high at the beginning (85% with moderate/high scores), which was reflected in high training uptake and the very good adherence of completers. The self-esteem training resulted in short-term improvements in relevant outcome measures. Due to the within-subject design of the training evaluation, time effects cannot be ruled out. Further studies should investigate the specificity of the self-esteem training effects and its long-term outcome.

**Conclusion:** Subject to review, the potential benefit of an AFI may be to enhance treatment rates in BDD by improving acceptance of effective internet-based intervention. Two-week internet-based training improved not only self-esteem but also BDD symptoms. It represents a low-threshold approach for people with BDD to engage in therapy. The focus on the resource-oriented topic of self-esteem may have promoted interest among this group.

## Reliability and Validity of Social Cognitions Questionnaire

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**Objective:** Social Cognitions Questionnaire (SCQ) is developed by Clark and Wells and it is used in the treatment processes of individuals with Social Anxiety Disorder. This mental measurement enables us to determine patients' cognitions related to SAD. We aimed to examine validity and reliability studies for SCQ to be used in patient follow-ups and clinical studies in Turkey.

**Methods:** The study was performed with a total of 162 people, including 114 patients diagnosed with Social Anxiety Disorder according to DSM-5 diagnostic criteria, who applied to the Psychiatry outpatient unit of Bağcılar Training and Research Hospital, and 48 controls who were similar in age, gender and education level to the patients. Sociodemographic information of the participants was obtained during the interviews, and Social Cognitions Questionnaire, Liebowitz Social Phobia Symptoms Scale (LSFS), Beck Anxiety Inventory (BAI), and DAS-R-TR were applied. Statistical analyzes were performed by using IBM SPSS 22.0 program, and Exploratory Factor Analysis was analyzed with the AMOS program.

**Results:** The Social Cognitions Questionnaire (SCQ) has a three-factor structure that explains 52.23% of the total variance, and the total Cronbach's alpha value was found to be 0.809. The Cronbach's alpha values of the sub-dimensions of the scale were found to be 0.821 for factor 1, 0.618 for factor 2, and 0.671 for factor 3. It was found that there was a positive and significant correlation between SCQ and its subscales and BAI, LSFS and its subscales, DAS-R-TR ( $p < 0.05$ ).

**Conclusion:** According to the results obtained in our study SCQ have a strong factorial structure and this questionnaire is valid and reliable measurement for use in the field of Social Anxiety Disorder.

## Examining Variables Associated with Parents' Irrational Beliefs: A Meta-Analysis Study

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**Introduction:** Irrational beliefs can be related to parenting as in many other areas (Ellis & Harper, 2005). The main purpose of this study is to examine the variables related to parents' irrational beliefs about parenting by meta-analysis method and to determine the effect sizes of the variables related to parental irrational beliefs.

**Method:** Within the scope of the study, 1409 studies were reached by examining the studies in Google Scholar and Web of Science databases with the relevant keywords. As a result of the evaluations made by considering the inclusion and exclusion criteria, 15 studies were included in the meta-analysis. After the initial analysis, the variables related to parental irrational beliefs were determined as "Parent Negative Mental Health", "Child Negative Mental Health", "Positive Parental Behaviors", "Negative Parental Behaviors", "Parent Positive Mental Health" and "Child Positive Characteristics". In addition, subgroup analyses were made in terms of the country where the study was conducted.

**Results:** The effect size for the relationship between parents' irrational beliefs and general irrational beliefs was estimated as 0.56 within the 95% confidence interval according to the fixed effects model. According to the country of the study, USA (0.85) has the highest effect size and Turkey (0.49) has the lowest effect size. The estimated effect size for the relationship between parents' irrational beliefs and parents' negative mental health characteristics is 0.18 within the 95% confidence interval. No significant difference was observed in terms of the country where the study was conducted. The relationship between parents' irrational beliefs and children's negative mental health characteristics was estimated as 0.15 within the 95% confidence interval. Since the studies included in the meta-analysis for this variable were not heterogeneous, subgroup analyses were not performed for this relationship. The effect size of the data obtained for the relationship between parents' irrational beliefs and positive parental behaviors was estimated as -0.08. It was observed that there was no relationship between the variables analyzed. Regarding the differences between subgroups of country type, USA has the highest effect size data while Turkey has the lowest effect size. Finally, the effect size of the data between parents' irrational beliefs and negative parental behaviors was estimated as 0.05. It was observed that there was no relationship between the variables examined. According to the country of the study, USA has the highest effect size and Turkey has the lowest effect size.

**Discussion and Conclusion:** The findings show that the variables related to parental irrational beliefs are mostly related to general irrational beliefs and least related to negative parental behaviors in terms of effect sizes. In terms of the country where the study was conducted, Turkey had the lowest effect size and the USA had the highest effect size in the data related to general irrational beliefs, positive and negative parental behaviors. The findings of the study indicate that the variables related to parental irrational beliefs show cultural differences.

## Transdiagnostic Unified Protocol on Anxiety Disorders

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**Introduction:** The transdiagnostic approach argues that the common features are needed to be taken into account [e.g. distress intolerance (DI), intolerance of uncertainty (IU), anxiety sensitivity (AS)] underlying emotional disorders rather than evaluating them separately since the dissection of anxiety disorders has increased with each emerging version of the Diagnostic and Statistical Manual of Mental Disorders (DSM), in which the classification of anxiety disorders resulted in an increased number of intervention protocols for each disorder. That is why an increase in comorbidity among anxiety disorders is observed. This also caused an increase in comorbidity among anxiety disorders. The transdiagnostic approach offers a unified protocol (UP) for strengthening the common features, thereby both preventing the emergence of emotional disorders and/or intervening in the symptom severity of emotional disorders, which can be applied to different types of emotional disorders. The main aim of this study is to develop a unified protocol. The UP will include interventions developing the levels of common transdiagnostic features (DI, IU, AS).

**Method:** The UP will be designed according to the CBT model, which will include cognitive (psychoeducation, cognitive restructuring etc.) and behavioral interventions (exposure, relaxation techniques, modification of action, etc.). Although beyond the scope of this conference paper, other phases planned for later will also be briefly mentioned in the following. After developing the UP, there will be an intervention group receiving the UP and a waitlist group. The participants will be randomly assigned to the groups (intervention and waitlist groups). The intervention group will receive UP in 8 weeks group therapy program. The other group will be on the waitlist during the process.

**Result:** Although the stages following the development of the UP are planned to occur after the conference, the expected results will be mentioned in the following sections. The research data will be analyzed in the SPSS program. To compare groups' differences, mMixed-ANOVA statistics will be conducted. The UP is expected to be effective, like other CBT protocols specific to different types of anxiety.

**Discussion:** The transdiagnostic approach is one of the new areas of interest in mental health, and there are still a few studies in this area. Therefore, the current study is expected to contribute to transdiagnostic the literature. This research is important to offer an alternative to comorbidity and decrease the symptom severity of anxiety disorders. In addition, the result of this research is expected to lead to further studies for developing both transdiagnostic intervention and prevention programs. Lastly, there has been no transdiagnostic study conducted in Turkey before. Therefore, the study is expected to contribute to mental health studies in Turkey.

**Conclusion:** UP is an alternative intervention for preventing and/or treating different emotional disorders. An effective UP will be promising for treating different comorbidities and developing more economical treatment protocols. It may be important necessary for countries like Turkey, which hosts many migrants and where limited mental health services are available in their mother tongue.



## Culturally-adapted Family Intervention (CaFI) for People with Psychosis From African and African Caribbean Backgrounds: Case Examples From Therapists' Perspectives

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**Background:** Family interventions have consistently been shown to improve outcomes for people with psychosis and their family members. Family interventions might particularly benefit people from African and African-Caribbean backgrounds who have the highest incidence of psychosis in Western countries and a long duration of untreated psychosis which is likely to increase family stress and carer burden. However, Black people have inferior access to psychological therapies including family interventions. There is therefore a growing recognition of the need to culturally adapt and evaluate psychological interventions for ethnic minority groups to improve access. The CaFI study is an ongoing multi-centre randomised controlled trial of a culturally-adapted CBT-based family intervention for people with psychosis in the UK.

**Method:** This presentation will give a brief background to the ongoing trial and then describe two case examples to illustrate the work. These examples, told from the therapists' perspectives, highlight key components of the intervention and issues that arose in working with this client group.

**Results:** Findings from the study suggest that it is possible to engage this client-group in family therapy similar to traditional evidenced-based family interventions, although as illustrated through the case examples, it is important that therapists pay attention to themes that are likely to be particularly pertinent for this group, including experiences of trauma, discrimination and mistrust of services. The use of Family Support Members, comprising members of the person's care team or volunteers recruited from the community, may also help support people to engage in therapy in the absence of biological relatives.

**Discussion:** Key themes and therapeutic implications that are discussed include the particularly pertinent role of trauma for this client group including in traumas within everyday life and those experienced within the mental health system. We also discuss the issues faced in delivering family work in the context of estranged family relationships and working with different cultural beliefs about the psychotic experiences.

**Conclusion:** We have been able to deliver key components of a CBT-based family intervention for psychosis to people from African and African-Caribbean backgrounds. The trial is still ongoing so the final outcomes are not available. However, the adapted therapy was based on several years of consultations with service users and their family members and a large feasibility study, meaning that the therapy is likely to be acceptable approach to service users and their families.

## Is Major Depression Associated with a Reduced Pupillary Response to Positive Prediction Errors?

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**Introduction:** Major depression has been linked to difficulties adjusting negative beliefs in response to unexpected positive experiences. With reference to a predictive processing model of depression, it has been proposed that this deficient integration of new experiences is associated with reduced processing of positive prediction errors at the neural level. The results of a previous pilot study indicated an association between elevated BDI-II scores and a reduced pupillary response to unexpected positive information. The aim of the present study was to investigate this finding in a clinical vs. healthy sample and an extended experimental design.

**Method:** Patients with major depression ( $n = 46$ ; 69.57% female; age:  $M = 35.02$ ,  $SD = 13.82$ ; BDI-II:  $M = 23.65$ ,  $SD = 9.8$ ) and healthy subjects ( $n = 44$ ; 68.18% female; age:  $M = 34.89$ ,  $SD = 14.28$ ; BDI-II:  $M = 2.45$ ,  $SD = 3.46$ ) completed a task which presented different social scenarios each consisting of three consecutive pieces of information. At the behavioral level, agreement with different (positive vs. negative vs. absurd) interpretations of the scenarios was examined. At the psychophysiological level, the central dependent variable was the pupil dilation in response to the outcome of the scenarios (unexpectedly positive vs. expectedly positive vs. unexpectedly negative vs. expectedly negative).

**Results:** At the behavioral level, preliminary results indicate that patients with depression rated negative interpretations more likely and positive interpretations less likely than healthy subjects across all conditions,  $F(1,86) = 27.507$ ;  $p < .001$ ;  $\eta^2p = .242$ . Analysis of the eye tracking data revealed no sample differences in the pupillary response to the last piece of information on the different scenarios. When considering the severity of depressive symptoms, there was a non-significant trend toward a smaller pupil dilation in response to surprisingly positive information in subjects with higher BDI-II scores,  $F(1,1966.10) = 3.780$ ,  $p = .052$ ,  $\eta^2p = .002$ .

**Discussion:** The behavioral results can be interpreted in terms of a negative interpretation bias of depressed individuals. As already shown in previous studies, patients with major depression tend to expect more negative events and interpret situations in a more negative way than healthy people. The pupillary data did not reveal clear differences between depressed and healthy subjects. Nevertheless, exploratory analyses suggest that the severity of depression might be associated with a slightly decreased pupillary response to novel positive information. The results of further exploratory analyses will be presented at the conference.

**Conclusion:** Due to the immense relevance of major depression for our society, it is important to identify its maintaining mechanisms. The results of the present study do not yet provide a conclusive evidence for such a mechanism on the psychophysiological level. Therefore, further research is needed to determine psychophysiological correlates of reduced processing of new positive information.

## Depression and Anxiety Levels in Children and Adolescents with Attention Deficit Hyperactivity Disorder

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**Introduction:** Attention deficit/hyperactivity disorder (ADHD) is one of the most frequent neurodevelopmental diseases in kids, with a meta-analysis study reporting a global incidence of 5.29%. [1]. The prevalence of ADHD was found to be 12.4% in multicenter research done in Turkey [2]. ADHD is most frequently accompanied by oppositional defiant disorder (CO-ODD) (40.6%), major depressive disorder (21.6%), generalized anxiety disorder (GAD) (15.2%), and any anxiety disorder (32.2%). [3]. In this study, we aimed to determine the accompanying psychiatric comorbidities in children and adolescents with ADHD and to compare their depression and anxiety levels with healthy controls.

**Method:** Children and adolescents aged 8 to 12 years diagnosed with ADHD using DSM-5 criteria (n=80) were enrolled in the study and compared to healthy volunteer controls (n=40). A child/adolescent psychiatrist performed a complete diagnostic examination on each patient using the Schedule for Affective Disorders and Schizophrenia for School-Aged Children, Present and Lifetime Version (K-SADS-PL) and a sociodemographic and clinical information questionnaire was completed [3]. Children and adolescents completed the Revised Child Anxiety and Depression Scales – Child Version (RCADS-CV) [4]

**Results:** The ADHD group consisted of 80 cases (30 females, 50 males) and the control group consisted of 40 cases (10 females, 30 males). Regarding age and sex, there was no statistically significant difference between the two groups. The RCADS-CV questionnaire's mean total and subscale scores for the ADHD group were found to be statistically significantly higher than those for the control group.

**Discussion:** When the literature is examined, it has been reported that depression develop over the years in children and adolescents with ADHD. Both clinical and epidemiological studies show that 1/3 of children with ADHD have anxiety disorder. Consistent with the literature, we found higher levels of depression and anxiety in the ADHD group compared to the controls. This may be due to the fact that children realize their inadequacies better due to the increase in their cognitive capacities with age, they are not as successful as their friends in their lessons, and they are ostracized by their friends due to behavioral problems.

**Conclusion:** Comorbidity of depression and anxiety disorder affects the prognosis negatively in ADHD cases. Therefore, examining ADHD cases in terms of depressive disorder and anxiety disorders in the diagnosis and treatment process is of great importance in terms of accurate and effective treatment and long-term prognosis.

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## Not Gone: After Death Communications in Addressing Grief

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People of the world have recently endured dramatic increases in illness and death related to events including a global pandemic, horrendous warfare, manmade environmental disasters and natural climate events. For each death, there are on average 9 individuals who grieve that human loss. Although we have ongoing death and dying, and related grief, there has been a lack of progress in developing effective treatments for either fear of death and dying or for grief. We explore a phenomenon called after death communications (ADCs) that people report experiencing. An ADCs involve experiences of sensing the presence or receiving messages from a deceased person. We report on data from widow and widowers who reported ADCs and the impact on their grieving, healing, and acceptance of loss. The results show that 79% of participants found ADCs to bring comfort and emotional healing, while 7% reported that it made the absence of the deceased more painful. Interestingly, 64% of participants considered ADCs to be important for their bereavement process. Furthermore, 56% of participants believed that their bond with the deceased continued after death and that ADCs deepened that connection. 41% of participants wished for new contact, while 33% felt that the perceived contacts were already sufficient. Additionally, the study found that 51% of participants reported that ADCs reduced sadness triggered by loss, and 62% believed that ADCs made it easier to accept their loss. Finally, 49% of participants believed that their recovery and return to life's enjoyment were accelerated by ADCs, and 61% believed that their bereavement process would have been different if they had not experienced ADCs. This study adds to the research demonstrating the positive impact of ADCs on widows and widowers in addressing grief. Results also emphasize the importance of understanding this phenomenon in the grieving process and the need to further explore this phenomenon across cultures and for therapeutic implementation.

## Motor Related Positive Affect in Depressed Individuals

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**Introduction:** Finding new mechanisms that can be targeted to improve the psychological treatment of depression is a constant preoccupation. Non-clinical research suggests that, like perceptual fluency, motor fluency similarly evokes positive affect related to fluent actions. When individuals interact with objects with a fluent movement, they prefer those objects more than when they interact in a non-fluent manner (an obstacle makes the movement more difficult) (Hayes et al., 2008). Up to this moment, this effect has not been evidenced in clinical populations. Here we investigate the differences in motor fluency related positive affect between depressed and non-depressed individuals. In Study 1, we hypothesized that individuals with depression will have lower levels of reported movement related pleasure and will seek fewer activities that require physical movement. We also hypothesized that movement-related pleasure would mediate the relationship between depressed mood and anhedonia. In Study 2, we hypothesized that depressed participants would have lower motor fluency-related positive affect than non-depressed participants.

**Method:** In two studies, we examined the motor-related positive affect in depressed vs. nondepressed individuals. In a cross-sectional study, Study 1, 51 high depressed participants (PHQ-9 > 9; Manea et al., 2012) and 41 non-depressed (PHQ-9 < 5) participants completed subjective measures related to anhedonia (Snaith-Hamilton Pleasure Scale; Snaith et al., 1995) and rated the pleasure they feel when they move and whether they seek to do movement related activities on a Likert-type scale from 0 (not at all) to 6 (very much). In Study 2, we examined whether movement-related pleasure is affected in depressed individuals based on implicit measures. To this end, we selected 20 non-depressed and 20 depressed participants using PHQ-9 scores. Based on previous methodology (e.g., Hayes et al., 2008), participants had to move different objects (10 pairs of similar objects) in a fluent (no obstacle between the start and end of the movement) and non-fluent (participant had to overcome an obstacle) condition. After each trial, participants had to estimate how much they liked the object based on their first impression. At the end of the experiment, they responded to control questions.

**Results:** In Study 1, results showed that depressed participants reported less pleasure related to movement ( $t = 2.272$ ,  $p = .008$ ) and seeking movement in activities ( $t = 4.235$ ,  $p < .001$ ). Moreover, movement-related pleasure mediated the relation between depressed mood and anhedonia ( $b = 0.679$ , 95% CI: LL=0.155; to UL=1.390). In Study 2, results showed that depressed participants have lower levels of motor fluency than non-depressed participants ( $t = 2.167$ ,  $p = .037$ ).

**Discussion:** This study suggests that depressed individuals show a deficit in motor-related positive emotion. Moreover, our results suggest that this deficit may be evidenced both by self-reported and implicit measures.

**Conclusion:** We present preliminary evidence for a new mechanism, deficits in motor fluency-related positive affect that may be involved in anhedonia in individuals with depression. We discuss cognitive behavioural strategies that may be used for dealing with deficits in motor related positive affect.

## Development and Examination of Psychometric Properties of the Anticipatory Anxiety Inventory

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**Introduction:** Anticipatory Anxiety (AA) is defined as a course of thoughts, feelings, and actions occurring just and only "before" the anxiety-provoking event (Hinrichsen, & Clark, 2003). A recent neural model of anticipation anxiety, the Uncertainty and Anticipation Model of Anxiety (Grupe & Nitschke, 2013; UAMA) aimed to clarify how anticipation before the uncertain threat is associated with the development and maintenance of psychological disorders (Grupe & Nitschke, 2013). To elucidate the reasons of AA, the UAMA model suggests the importance of consideration and measurement of five processes. Therefore, the absence and creation of an assessment tool that address 5 processes was warranted.

**Materials:** Anticipation Anxiety Inventory (AAI), Beck Anxiety Inventory (Beck & Steer, 1993), State-Trait Anxiety Inventory (Spielberger et al., 1995), World Health Organization Quality of Life-BREF (WHOQOL Group, 1998), Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2004) were administered to examine the aim of this projects.

**Method:** In order to explore and examine the psychometric features of AAI, exploratory, and confirmatory factor analysis was carried out. Furthermore, the hierarchical linear analysis was performed to test the incremental validity of AAI. Lastly, moderated mediation analysis was carried out for investigating the utility of the AAI. Participants: In data collection 1, one hundred and ninety-nine participants were recruited. In data collection 2, four hundred and twenty six university students were recruited. The second data was collected before the final exam period.

**Results:** Exploratory factor analysis results suggested 4-factor solution for AAI; Emotional Hypersensitivity (Factor 1), Physical responses to AA (Factor 2), Dysfunctional Cognitions (Factor 3) and Daily Functioning (Factor 4). Findings of Confirmatory Factor analysis (CFA) conducted with AMOS indicated that AAI is an acceptable, reliable, and valid measure with an excellent internal consistency ( $\alpha = 0.92$ ). Hierarchical Linear analysis findings also indicated that AAI, using the WHOQOL measure as a dependent variable, did not present significant predictive validity. Nevertheless, AAI displayed good convergent and concurrent validity. There were no significant gender group differences. However, Independent samples t-test results suggested no gender group differences in anticipation anxiety; nonetheless, AAI, STAI, BAI, WHOQOL-BREF, and DERS significantly rise in the existence of mental health problems (MHP).

Last but not least, PROCESS moderation analysis results indicated that difficulties in emotion regulation do not moderate the relationship between anticipation and outcome variables. Based on these findings, a post hoc analysis was run to check the impact of whether difficulties in emotion regulation moderate the relationship between clinical anxiety and anticipation anxiety. The results demonstrated a significant moderating effect of difficulties in emotion regulation in the relationship between clinical anxiety and anticipation anxiety.

**Conclusions:** As a conclusion, AAI showing excellent internal consistency, concurrent and convergent validity proposes that this research provided a new instrument to the field of stress and anxiety research. These findings also provided further clinical and research implications i.e AAI may serve as a tool that informs the practitioner, and the researchers. For the future implications, additional research is needed regarding the utility of this measure in clinical settings.

## Dating Violence and Adverse Childhood Experience: The Mediating Role of Sensitive Rejection, Irrational Beliefs

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Looking at the rates of dating violence in the world, it is seen that it is quite common. It has been determined that more than one out of every four women who have a partner between the ages of 15-49 have experienced physical/sexual violence by their partner at least once in their lifetime. In this study, the mediating role of rejection sensitivity and irrational beliefs in the relationship between young adults' childhood traumatic experiences and their attitudes towards dating violence were examined. 960 university students studying at different faculties at Mehmet Akif Ersoy University and Gaziantep University participated in the research. Personal Information Form, Dating Violence Scale, Childhood Trauma Questionnaire (CTQ), Rejection Sensitivity Scale and Relationship Belief Inventory were used in the study. Structural equation model, t test and ANOVA test were used to analyze the data. As a result of the analyzes, it was determined that there is a negative relationship between childhood traumatic experiences, rejection sensitivity and irrational beliefs and attitudes towards dating violence. The decrease in the average score taken from the scale for the attitude towards dating violence means that violence in dating is accepted. In other words, as childhood traumatic experiences, rejection sensitivity and irrational beliefs increase, the level of acceptance of dating violence also increases. For the structural equation model, the measurement model was tested in the first stage, and then the structural model was tested. According to the results obtained, it was determined that rejection sensitivity and irrational beliefs had a mediating role in the relationship between childhood traumatic experiences and attitudes towards dating violence. It was determined that the model explained 29% of the total variance of attitudes towards dating violence. In addition, in the study, the differentiation status of the attitude towards dating violence according to demographic variables was investigated. According to the results obtained, it was determined that the attitude towards dating violence differed according to gender and substance use status, but did not differ according to age and duration of relationship. With the findings obtained, it is understood that different risk factors may be effective in the intergenerational transmission of violence. Cognitive and emotional pathways model is proposed to explain the intergenerational transmission of domestic violence. This model considers the interactions between various cognitive processes (such as beliefs and knowledge structures) and various emotional processes (such as trauma responses, emotional regulation, rejection sensitivity). As a result, it was determined that childhood traumatic experiences predict the attitude towards dating violence through rejection sensitivity and irrational beliefs, and it was thought that the result obtained would contribute to the young adult's establishing healthy romantic relationships and the efforts to prevent dating violence.

## The Effects of Religiously Integrated Cognitive Behavioral Therapy: A Brief Intervention Program for Post-Traumatic Stress Symptoms

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**Introduction:** Earthquakes are considered one of the most life-threatening, destructive and uncontrollable of the many types of natural disasters. They can cause massive destruction and loss of life, and survivors may face a serious burden of psychological symptoms. In addition, disaster survivors are at risk for acute stress disorder, depression or PTSD. Therefore, after earthquakes and major disasters, there is a need for short interventions that can be distributed to disaster victims in a cost-effective manner. In this direction, in psychotherapeutic treatment studies for ASD with proven effectiveness, it is stated that 5 to 6 sessions of therapy are generally given and good success is reported. However, posttraumatic reactions and recovery are the result of reciprocal and complex interactions between biological, personal, cultural and environmental factors and culturally sensitive approaches are important in creating appropriate mental health strategies for disaster scenarios and different trauma events. Accordingly, the aim of the study is to implement the Religiously Integrated Cognitive Behavioral Therapy A Brief Intervention Program for Post-Traumatic Stress Symptoms on those who directly experienced.

**Method:** The research is a quasi-experimental design study. The DSM-5 Acute Stress Symptom Severity Scale was used to identify the participants; the Posttraumatic Stress Disorder Checklist for DSM-5 (PTSD-5), the Posttraumatic Growth Inventory (PGRI), the Posttraumatic Cognitions Inventory (PTCI), and the Religious Coping Scale for Muslims (RCCS) were administered before and after treatment, and at 1-week and 1-month follow-up measurements for treatment outcomes. The study was conducted with 24 people with posttraumatic stress symptoms. The participants were nonrandomly divided into two groups as experimental and control groups. Participants received a 5-session, 2.5-week marathon intervention programme developed in consultation with clergy and trauma specialists.

**Results:** When the findings of the analyses were analyzed, the level of posttraumatic stress disorder, which was the key measure of the study, revealed a statistically significant decrease in the experimental group compared to the control group in the posttest assessment. Both groups showed a significant decrease in posttraumatic cognitions and an increase in posttraumatic growth and adoption of religious coping methods. In addition, some of the written feedbacks of the participants about what was useful in the therapy were as follows: "(the therapy) has introduced my values that I had realised but could not name", "I knew my values but I was not oriented towards them", "The ayats-hadiths were useful", "I learnt what I was going through in a professional way, the definition of the problem and the reactions given and the ways of coping", "Accepting some events, living by handing things over to Allah and being more surrendered can lighten the burden of human beings", "Normalising the moments that I remember negatively or avoid remembering by returning to that moment".

**In Conclusion:** religiously integrated CBT intervention programme for posttraumatic stress symptoms are significantly effective in altering both PTSD symptoms and maladaptive cognitions. These findings also suggest that culturally sensitive interventions can be used as an alternative early intervention method to alleviate PTSD symptoms and prevent them from developing.

## Barriers to and Enablers of the Delivery and Implementation of Tuning in to Kids, an Emotion-Focused Parenting Program – an International Mixed Method Survey of Lessons Learned From 20 Years of Research and Practical Experience Worldwide

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**Introduction:** Early childhood is an important window for the development of socio-emotional skills, also known as emotion socialization period. Mainly within the family context, children learn about emotions, emotion expression and emotion regulation. The Australian emotion-focused parenting program Tuning in to Kids (TIK)<sup>®</sup> enhances emotion related parenting behaviours. Research has shown that also child development and behavior as well as the family climate improve. TIK is well documented and has been evaluated in several countries, cultures and contexts in Australia, Asia, The Americas and Europe.

Implementation research on parenting programs has revealed a bunch of critical factors like finances, infrastructure, collaboration, participant and group facilitator factors. Still, there is much implicit and process knowledge that could improve the development, delivery and implementation of emotion-focused parenting programs, when these blind spots will be uncovered. Therefore, this study aims to examine the barriers and enablers of the delivery of TIK based on the facilitators' practical experience worldwide.

**Method:** After video calls and email exchange with nine colleagues from six countries, categories of barriers and enablers were defined. This first grid was sent to a group of 19 researchers from eight countries. These filled in their comments in the respective category. Resulting hereof, an online survey was set up, including important items from implementation literature if not already covered. The survey was sent to as many TIK researchers and practitioners worldwide possible. The survey was developed qualitatively and answered by researchers and practitioners experienced in TIK worldwide to collect and quantify answers.

**Results:** Already in the qualitative stage of the study, the following categories emerged: organization, finances, infrastructure, training, collaboration, participants, online-delivery, parenting programs during the covid-19 pandemic, group dynamics, recruitment, cultural aspects and certain contextual aspects of the TIK program.

**Discussion:** This study contributes to a better understanding of barriers and enablers of parenting programs that aim at improving parenting skills and child behavior.

Results and implementation uncovered blind spots will be presented and discussed.

## The Mediating Role of Difficulties in Positive and Negative Emotion Regulation in the Relationship between Early Maladaptive Schemas and Cyber Dating Violence

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**Introduction:** Cyber dating violence includes all kinds of words, attitudes and behaviors that individuals use against their partners in order to harm the partner in the digital environment. In the present study, it was aimed to examine the mediating role of difficulties in positive emotion regulation and negative emotion regulation in the relationship between early maladaptive schemas and cyber dating violence.

**Method:** The sample of the study consists of 298 individuals between the ages of 18-30 who are in a romantic relationship or have had a romantic relationship in the last 1 year. The data of the research was collected through Demographic Information Form, Cyber Dating Abuse Questionnaire, Young Schema Questionnaire-Short Form, Difficulty in Emotion Regulation Scale-Short Form and Multidimensional Measure of Difficulties in the Regulation of Positive Emotions.

**Results:** Pearson Correlation Analysis was used to determine the relationship between early maladaptive schemas, difficulty in positive emotion regulation, negative emotion regulation and applied and exposed cyber dating violence. As a result of the statistical analyzes, significant relationships were found between four schema areas, disconnection&rejection, impaired autonomy and performance, other-directedness, overvigilance&inhibition, and the digital dating violence both applied and exposed. Mediation analysis revealed that difficulty in positive emotion regulation had a partial mediator role in digital dating violence applied and exposed to four schema domains. In addition, a partial mediating role of difficulty in regulating negative emotion was found between the areas of disconnection&rejection and others-directedness schema areas and the digital dating violence exposed.

**Discussion:** Individuals with an early life in an unhappy family develop schemas that cause them to turn to strategies such as fear, suppression and sabotage instead of feeling guilty for experiencing and enjoying positive emotions. At this point, the sabotage can be seen as the person being exposed to cyberbullying and/or being a cyberbully. The fact that digital dating violence seen in romantic relationships occurs especially through positive emotion regulation strategies reveals a need for how a positive emotion can be regulated especially in the adolescence and emerging adulthood group.

**Conclusion:** The association of early maladaptive schemas and emotion regulation difficulties with digital dating violence suggests that clinicians may be effective in developing interventions for emotion regulation skills. In particular, in terms of regulation of positive emotions, impulse control, goal-oriented behavior, ability to activate emotional strategies, acceptance of emotions and regulation of target-oriented emotions and behaviors will be important therapeutic targets. Finally, awareness of cyber dating violence, cyberbullying and/or being a cyberbully that can be seen in adolescence and emerging adulthood group should be increased and people should be aware of their possible victimization.

## Comparative Efficacy of Two Mobile Psychological Interventions in Reducing Depressive, Anxiety and Stress Symptoms: PsyPills and Online Contingent Attention Training (OCAT)

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**Introduction:** The relevance of mobile health interventions has been highlighted especially at the level of the general population, for awareness, prevention and low-intensity interventions of common psychological problems. The most common mental health problems in the general population are depression, anxiety and stress. Although many apps have been around, studying the efficacy and mechanisms involved in change are still needed.

Two mobile interventions suited for these aims, that are targeted at general distress, but by purported different mechanism, are PsyPills and OCAT. "PsyPills" consists in prescribing personalized rational thinking strategies to change levels of dysfunctional emotionality. Whereas OCAT works by facilitating disengagement from negative content and positive engagement of personally relevant information, providing instruction and performance feedback.

**Methods:** The current study is a three-arm controlled clinical trial, with 4 waves of data collection, preregistered with the ClinicalTrials.gov identifier: NCT05294809, and representing the comparative hypotheses of the primary efficacy outcomes.

For this aim, 229 participants from the general population of Romania were retained, recruited through social media announces, with an age of minimum 18 and maximum 65, and having access and being able to use a smartphone. Participants were randomly assigned to one of three conditions: 2 experimental conditions (PsyPills and OCAT) and an active control group (shamOCAT, a "fake" version of the OCAT intervention, by offering the same attentional training, without training and feedback on performance).

The primary outcome measure is depression, anxiety and stress symptoms, measured by the DASS-21 questionnaire, with scores from 0 to 63, higher scores meaning worse outcomes. Measurements were collected before allocation (baseline), at the mid of the intervention (5 days), at the post intervention (10 days), and at an interval of one month after the intervention (follow-up).

**Results:** We obtained significant group \* time interactions for psychological distress ( $F=2.378$ ,  $p=.030$ ), anxiety ( $F=2.409$ ,  $p=.028$ ), and stress ( $F=186.517$ ,  $p=.028$ ). Following these results with specific pairwise comparisons, we observed that PsyPills ( $\beta=-5.219$ ,  $p=.032$ ) as well as OCAT ( $\beta=-6.299$ ,  $p=.015$ ) reduced significantly the main psychological distress outcome compared with the active control group, at the follow up, with medium effect sizes ( $d=.48$ , and  $d=.58$ , respectively). For the anxiety outcome, PsyPills has the sole significant pairwise comparison with the control group ( $\beta=-2.165$ ,  $p=.011$ ), with a medium effect size ( $d=.60$ ) at the follow up, while for the stress, both apps performed significantly better than the control at the follow up (PsyPills,  $\beta=-2.640$ ,  $p=.013$ ,  $d=.59$ ; OCAT,  $\beta=-2.618$ ,  $p=.020$ ,  $d=.58$ ). To note, although for the depression subscale, no significant interaction or comparisons effects were registered, the trend was still in the expected direction, with an effect size of  $d=.34$  for the OCAT app.

**Discussion and Conclusion:** The results confirm both the equal effectiveness of the two interventions in the symptomatology of psychological distress, with a medium effect size, and indices of specificity in the mechanisms involved (PsyPills with a larger effect size on Anxiety, and OCAT in Depression, although with a non-significant difference). Future studies should focus on investigating the separate active ingredients behind the efficacy of these two interventions.

## A network analysis approach to cognitive emotion regulation strategies and academic burnout symptoms in children and adolescents

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School children experience high levels of academic stress associated with exams, the interaction with teachers, bullying, and parental consequences associated with failure in the academic context. An important question to be asked is how can certain people manage stressful academic situations efficiently, whereas other people struggle, and eventually develop mental health problems such as academic burnout. The purpose of this study is to identify the how different academic burnout symptoms are interconnected and associated with specific cognitive emotion regulation strategies (CERS). A secondary objective was to investigate whether the network changes its connectivity across genders.

The sample consisted of 710 children and adolescents aged 9-16 ( $M = 10.67$ ). Networks were estimated using the Gaussian graphical model. The results of the study identified emotional exhaustion and cynicism as the main symptoms of academic burnout in the current sample, and catastrophizing and reappraisal as the main CERS in the network structure. In terms of important links within the network, the analysis emphasized the relationship between exhaustion and cynicism symptoms, followed by the relationship between exhaustion and inadequacy, self-blame and catastrophizing, and positive reappraisal and refocus on planning. We employed a network subgroup analysis in order to test for statistically significant differences between the networks for females and males, respectively. In terms of global strength and edge weights, there were no statistically significant differences across the networks. When we looked at the individual edge differences, several differences emerged.

Following additional replication of our findings, future prevention and intervention programs should focus on cognitive strategies that would particularly target catastrophizing and train reappraisal strategies in stressful academic settings.

## **A New Approach to Psychotherapy: Qualitative Case Analysis of Culturally Adoptable Motivational Cognitive Affective Determination Therapy**

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**Introduction:** Using a qualitative approach, the current study explored therapist and client perspectives using a fourteen-session Culture-Adoptable Motivational Cognitive Affective Determination Therapy (CA-MCADT) protocol on a 21-year-old male client with social phobia and problems with career planning. The CA-MCADT methodology is a novel approach that seeks to empower clients to create their own life's purpose, cultivate inner peace, develop self and others-love, and satisfy their fundamental psychological needs (namely, autonomy, competence, and the need for relatedness) through a combination of cognitive, emotional, and behavioral interventions. In addition to employing traditional Rational Emotive Cognitive Behavioral Therapy techniques, the approach also employs culture-specific metaphors, common aspects of Sufism teaching, discourse analysis and reconfiguration, emotional regulation, motivational strategies, and psychoeducational methods as intervention tools.

**Method:** In adherence to a qualitative research methodology, various sources were utilized to collect data including (1) observations from the therapist and client, (2) clinical treatment notes, (3) client feedback, (4) session notes, and (4) homework completion records. Additionally, an independent clinical psychologist observer listened recordings to of sessions and provided feedback. The results were assessed based on feedback from the client and observer, the usefulness of homework completion, understanding of CA-MCADT themes, and adherence to the theoretical assumptions of CA-MCADT during interviews.

**Findings:** The client who receiving therapy expressed that he found the discussions, metaphors, and assigned tasks pertaining to self-love and inner peace helpful in reducing their social phobia. However, he did not feel that the exercises had any impact on his understanding of life's purpose or fulfillment of basic psychological needs. The therapist followed the established treatment protocol, but the effectiveness of exploring the concept of life's meaning in clients presenting with symptoms of social phobia should be re-evaluated. The observer noted the potential significance of the therapy for career planning.

**Discussion:** The results indicated that the CA-MCADT approach was implemented through sessions focused on the main theoretical themes. While there were partially promising outcomes in terms of reduced social phobia symptoms and increased self-acceptance and self-love of the client, the approach highlighted the necessity for a more systematic model regarding intervention tools in the treatment.

## **An Integrated Cognitive Behavioral Therapy Program in Consultation with a Clergyman for Behavioral Activation Against Rumination: A Case Report**

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**Introduction:** Repetitive negative thoughts such as worry and rumination may be more common in adults who have been exposed to negative experiences/traumatic experiences in childhood, which may lead to other negative consequences such as posttraumatic stress symptoms, depression, and cognitive complaints (Mansueto et al., 2021). Therefore, considering these negative clinical outcomes, interventions to reduce recurrent negative thoughts are important. In this direction, it is seen that treatment approaches such as Cognitive Behavioral Therapy (CBT) (Wilhelm et al., 2005), Acceptance and Commitment Therapy (Kaplan et al., 2017), Rumination Focused CBT (Watkins, 2018) are recommended in studies. However, these intervention approaches do not sufficiently emphasize culture-specific factors. Considering the role of cultural background in an individual's learning processes (Rosa-Alcázar & Iniesta-Sepúlveda, 2018), the need for culturally sensitive individualized interventions becomes evident.

The aim of this study is to discuss the results of integration of the consultation intervention with an expert clergyman to the cognitive behavioral therapy practice for stopping rumination about traumatic experiences that prevent behavioral activation through a case study.

**Method:** In this study, a 21-year-old woman with unspecified trauma and stressor-related disorder and comorbid generalized anxiety disorder was presented. Beck Depression Inventory, Beck Anxiety Inventory and Generalized Anxiety Disorder-7 scales were used to assess symptoms during therapy; self-report was obtained for post-intervention assessment. The treatment included CBT methods consisting of 50-60 minute sessions once a week. In addition, the client was not in contact with her father due to traumatic experiences with him father. Due to her religious values, she was hesitant about issues such as "Do I have a responsibility towards my father?". For this reason, traumatic experiences were addressed and in addition to the classical cognitive intervention, religious information was shared through an expert clergyman about the ruminative content that prevented the behavioral activation of the client.

**Results:** When the obtained scale scores are analyzed, it is seen that there was a significant decrease in the symptoms of the case. In addition, the feedback received from the client at the end of the consultation intervention with an expert clergyman shows that the intervention clarified the client's ambivalence about how to regulate family relationships, which the client was constantly ruminating about, with religious information and restored the client's behavioral activation: "My mind is clear about whether I have a duty towards my father. I feel more at ease now. I am glad I went and talked to him. Now I will try to focus on the things in front of me without thinking about it. I will look at what I want to do with my school and my studies."

**Discussion-Conclusion:** The intervention was significantly effective in reducing the client's symptoms and stopping rumination, which inhibits behavioral activation. These findings also suggest that interventions such as religious information and counseling with clergy may function to increase treatment adherence for clients who are assessing whether something is appropriate in terms of their religious values. Therefore, it becomes important to develop culturally sensitive interventions or to adapt existing interventions to cultural sensitivities.

## Validating a new Measure of Violation Appraisals in the Context of Mental Contamination

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**Background:** Mental contamination refers to feelings of internal dirtiness and/or washing behaviour that arise without contact with a physical contaminant. Instead, these feelings are proposed to arise in response to violating internal experiences (i.e., thoughts, images, memories). For this reason, the symptom is common among survivors of sexual trauma as well as those with obsessive-compulsive disorder. Cognitive models of mental contamination suggest that these feelings arise when individuals make a serious and negative misappraisal of a violation. However, little research has been done to identify and measure the specific appraisals that underlie this phenomenon. Therefore, the aim of the present study was to develop and validate a quantitative measure of mental contamination-relevant appraisals of violation.

**Method:** Items for the new violation appraisal measure were generated from semi-structured qualitative interviews with individuals with OCD and/or histories of sexual trauma aimed at understanding the meaning of violation. Undergraduate students (N=376) at Concordia University in Montreal, Canada were invited to complete a battery of questionnaires online, including the new measure. An exploratory factor analysis was conducted to determine the factor structure of the new measure, and psychometric properties of the measure were established through correlations with measures of related and distinct constructs.

**Results:** A five-factor solution was deemed to best fit the data based on a comparison of Eigenvalues from the data and the parallel analysis. The five factors identified were: responsibility/self-blame; permanence; self-doubt; powerlessness; and trust & safety. The measure showed excellent internal consistency, convergent, divergent, and predictive validity.

**Conclusion:** This appears to be a valid and reliable quantitative measure of mental contamination-related violation appraisals. A measure like this can help to evaluate the possible mediating role of different types of violation-related appraisals in the relationship between the experience of sexual assault and the development of subsequent mental contamination symptoms.

## Cost-Benefit of IAPT Norway and Effects on Work-Related Outcomes and Health Care Utilization: Results From a Randomized Controlled Trial Using Registry-Based Data

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**Introduction:** While there is solid evidence of the clinical effectiveness of the "Improving Access to Psychological Therapies" (IAPT) program, its overall cost-benefit and effects on work-related outcomes and health care use are more unsettled. In this study, data from the IAPT Norway trial ("Prompt Mental Health Care" (PMHC)) were linked to several administrative registers, which provided near complete annual outcome data up to three years following the intervention. The aims were 1) to examine the effects of PMHC compared to treatment as usual (TAU) on work-related outcomes and health care use, 2) to estimate the cost-benefit of PMHC, and 3) to examine whether intervention effects on work participation and cost-benefit were explained by intervention effects on self-reported clinical outcomes at 6-months follow-up (i.e., symptoms).

**Method:** The trial was conducted in a routine primary care setting in 2016-2017, and 774 participants were randomly assigned on a 70:30 ratio to either PMHC or TAU. We used Bayesian estimation and 90% credibility intervals (CI), and the posterior probability (PP) of effects in favour of PMHC were calculated for all outcomes. Primary outcome years were 2018, 2019 and 2020. The cost-benefit analysis was based on a societal perspective by estimating the net gains in Norwegian kroner (NOK) after accounting for production gains and losses, as well as health care costs. The trial is registered at ClinicalTrials.gov (NCT03238872); status completed.

**Results:** Registry-based outcome data was available for 738 participants (95.3% of original sample). Overall, the observed patterns were suggestive of intervention effects in favour of PMHC. In more detail, the PMHC group was more likely than the TAU group to be in regular work without receiving benefits in 2019 (34.0% vs 29.1%, OR= 1.28; 90%CI 1.03-1.32, d= .14, PP=96.0%) and 2020 (28.4% vs 22.1%, OR= 1.38; 90%CI 0.93-1.89, d= .21, PP= 95.0%). Results for 2018 were considerably more uncertain. Some evidence was found that the PMHC group spent less on health care services in 2018 and 2019. The cost-benefit of PMHC post-randomization was estimated at a net productivity gain of 26,460 NOK per treated patient per year. The PP of PMHC being cost-beneficial based on the available data was 91%. Mediation analyses suggested that the intervention effects on work participation and cost-benefit were largely explained by the intervention effects on mental health at 6 months follow-up.

**Discussion and Conclusion:** This is the first study that examined the long-term societal impact of an IAPT-like service based on an RCT-design with objective and near complete outcomes. Altogether, the results support the societal benefit of investing in IAPT-like services. Our estimates are surrounded by considerable uncertainty because of the relatively low sample size set against the expected effect sizes of the included outcomes. Still, this study may be the best evidence available to date on this matter in the context of IAPT. The findings from the mediation analyses strengthened our confidence in the presented results, as it provides empirical evidence for the mechanism by which IAPT is expected to impact work outcomes, namely by improving mental health.



## Examining the Impact of Psychological Inflexibility Levels on Depression and Anxiety Levels in Pre-Adolescents

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**Introduction:** The aim of this study is to investigate the influence of psychological inflexibility levels on depression and anxiety levels in pre-adolescents. Previous studies have shown that, similar to adults, psychological inflexibility lies at the core of mental health problems in pre-adolescents. Individuals who exhibit high levels of experiential avoidance, have not explored their values, and struggle to regulate their behaviors accordingly are prone to developing various psychopathologies. Therefore, examining the relationship between psychological inflexibility levels and depression and anxiety levels in pre-adolescents is crucial for the literature on child and adolescent mental health.

**Method:** The participants of this study consisted of 368 students (204 male, 164 female) attending three different state middle schools in Gaziantep province, Turkey. The Avoidance and Fusion Questionnaire for Youth 8-Item Version and the Children's Depression and Anxiety Scale were utilized as data collection instruments. After obtaining the necessary permissions, face-to-face data collection was conducted with the students. Following the verification of the assumptions of simple linear regression analysis, the analysis was performed, starting with simple linear correlations.

**Results:** The results of the simple linear correlation analysis revealed a significant positive relationship between pre-adolescents' psychological inflexibility levels and their total scores for anxiety and depression ( $r = .76, p < .001$ ), social phobia ( $r = .62, p < .001$ ), panic disorder ( $r = .67, p < .001$ ), separation anxiety ( $r = .39, p < .001$ ), generalized anxiety ( $r = .59, p < .001$ ), obsessive-compulsive disorder ( $r = .56, p < .001$ ), depression ( $r = .74, p < .001$ ), and total anxiety ( $r = .73, p < .001$ ). Following the correlation analysis, simple linear regression analysis was performed, revealing a significant relationship between pre-adolescents' psychological inflexibility levels and their anxiety and depression levels ( $R = 0.766, R^2 = 0.586$ ), indicating that psychological inflexibility is a significant predictor of depression and anxiety levels ( $F(1,366) = 519.049, p < .001$ ). Psychological inflexibility accounts for 59% of the variance in pre-adolescents' depression and anxiety levels. The significance test of the regression equation's main predictor variable coefficient ( $B = 2.522$ ) also confirms that psychological inflexibility is a significant predictor ( $p < 0.001$ ). According to the regression analysis, the regression equation predicting pre-adolescents' depression and anxiety scores is as follows: Total depression and anxiety score =  $(2.522 \times \text{Psychological Inflexibility}) + 26.010$ .

**Discussion and Conclusion:** The findings indicate that psychological inflexibility is a crucial predictor of pre-adolescents' mental health. Accounting for 59% of pre-adolescents' depression and anxiety levels highlights the importance of considering psychological inflexibility as a variable. As pre-adolescents' psychological inflexibility levels increase, their depression and anxiety levels also increase. A 59% predictive rate is considered high in social sciences. Future studies could replicate the research with younger age groups, including children and adolescents.

## Validation of the Game-Based Assessment System of RETHink Game for Emotion Regulation Abilities in Youth

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**Background:** Emotional symptoms among young individuals are a significant concern as they can have detrimental effects on their future development as adults. To address this issue, RETHink has emerged as an effective standalone therapeutic game, with demonstrated results. Drawing from the principles of rational-emotive behavioral therapy (REBT), RETHink offers a range of levels specifically designed to cultivate different emotional regulation skills. These levels target essential abilities such as emotion recognition, fostering a positive attention bias, promoting cognitive change, and nurturing mindfulness.

**Objective:** We aim at investigating the reliability and validity of the RETHink therapeutic game assessment system against standardized instruments for the assessment of emotion regulation abilities in youths.

**Method:** In accordance with established guidelines, we recruited 110 youths aged 8 to 14 years old ( $M = 10.38, SD = 1.95$ ), 60% of which were females. Following informed consent, the participants filled out the standard questionnaires and, subsequently, they played the assessment system of the RETHink game. The reliability aspect was investigated by employing internal consistency and the test-retest reliability analysis.

**Results:** The results of the study revealed evidence of statistically significant positive associations between participants' scores and measures of emotion awareness, situational responsibility, and emotional control. In terms of predictive validity, the analysis showed statistically significant positive correlations for prosocial behaviors and negative correlations for conduct problems.

**Discussion:** The findings of our study demonstrate significant associations between the RETHink therapeutic game assessment system and established instruments used to assess emotional regulation abilities in youth. Furthermore, our results indicate that the total game scores obtained from the assessment system can serve as predictors for both conduct problems and prosocial behaviors. These outcomes highlight the validity and utility of the RETHink assessment system within the therapeutic game, offering valuable insights for both research and practical applications. The RETHink assessment system emerges as a reliable method for assessing emotional regulation abilities in youths, with implications for further research and practical implementation.

## Quality Assessment of Cognitive-Behavioural Therapy: Therapist Adherence and Competence, and Patient Outcome for Depression and Anxiety Disorders in Routine Psychiatric Care

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**Introduction:** In the dissemination of evidence-based practice, quality of care is essential. Yet, therapist adherence and competence are seldom assessed in routine clinical care, despite their assumed influence on patient outcome. The aim of the present study was to assess the quality of cognitive-behavioural therapy (CBT) in routine psychiatric care for depression and anxiety disorders, considering therapist adherence and competence, and therapy effectiveness, as well as the associations between them.

**Method:** Therapists (n = 29) in routine psychiatric outpatient care recruited patients (n = 85) with a principal diagnosis of depression or an anxiety disorder in Stockholm, Sweden. Therapist adherence was assessed mid-CBT by an observer and post-CBT by patient and therapist, respectively, using an instrument developed as part of the present study. Therapist competence in CBT was assessed using role-plays with a standardised patient before treatment. Patients rated diagnosis-specific symptoms, depression, general anxiety, functional impairment, and global health pre- and post-CBT. Linear mixed models were used to analyse associations.

**Results:** Therapist adherence was high according to patients, moderate to high according to therapists, and moderate according to observers. Most therapists demonstrated competence in CBT as assessed using the Cognitive Therapy Scale Revised (M = 40.5, SD = 6.5; 76% passed the ≥ 36 points competence threshold). Patients improved significantly from pre- to post-CBT, with large within-group effect sizes across outcome measures (Cohen's ds = 0.80 – 1.37). Neither therapist adherence nor competence was associated to patient outcome.

**Discussion:** The findings that therapists were adherent to and competent in CBT were on par with, or exceeded, results from previous studies in more controlled settings. Large effect sizes were comparable to CBT metaanalyses. Possible explanations to why neither adherence nor competence was related to patient outcome are proposed. Implications for quality assessment and improvement of CBT in routine psychiatric care are discussed.

**Conclusion:** In routine clinical care, therapists can deliver CBT with adherence, competence, and large patient improvements, at least for depression and anxiety disorders, in psychiatric outpatient services in Stockholm, Sweden.

## Evaluation of Autistic Features in Obsessive Compulsive Disorder Patients with Eye Monitoring Tasks

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**Introduction:** It is known that the frequency of autistic features is high in patients with Obsessive Compulsive Disorder (OCD). These features in OCD; The effects on symptom severity and quality, treatment response, and sociodemographic characteristics were also examined in previous studies, and researchers emphasized the importance of conducting more studies on the subject.

**Methods:** In this study, three participant groups (ASD patients, OCD patients, and healthy controls) with sociodemographically similar characteristics were included in the Autism Spectrum Questionnaire (AQ), Brown's Beliefs Assessment Scale (BABS), Stimulant Impulses Scale for Tics (PUTS) and two separate scales. quality eye tracking tasks (pictures in which social and physical norms are violated and videos consisting of interactive social stimuli) were applied. The data obtained; mixed pattern analysis of variance was compared between groups. The relationship between the results obtained and the Yale-Brown Obsession Compulsion Scale applied to OCD participants was examined by Spearman correlation analysis.

**Results:** The data of 48 (OSD:14, OCD:18, Control:16) participants who were accepted into the study were included in the analyses. ASD and OCD groups; It was found that the AQ, BABS, and PUTS scores differed significantly from healthy controls (p's<0.001). It was determined that the first fixation durations of the ASD group in the areas of interest in the pictures were longer than both the OCD (p=0.005) and Control (p=0.024) groups. In the ASD group, the time to first fixation in the areas of interest in socially weird pictures was found to be significantly longer than that of the OCD group (p=0.012). In eye tracking tasks consisting of video stimuli; OSB group's "Fransızca Öğreniyoruz!" they focused on the faces significantly less (p=0.022) and fixed later (p=0.012) in the video; It was determined that they focused more on anterior objects (p=0.009) than controls. It was found that the ASD group focused on faces less than the controls in the video "Heykeltraş Olmanız İçin Buyrun İlk Ders: Heykele Giriş" (p=0.023).

**Discussion:** AQ survey results; It shows that the frequency of autistic features is higher in OCD patients than in healthy controls. When the results of eye tracking tasks in pictures are evaluated; It can be thought that the subtle differences detected may reflect the social attention and social cognition deficiencies of ASD patients. Video task results; A significant difference was made between the ASD group and the controls in terms of focusing time on the face. The duration of focusing on the face of the OCD group; Although it was more than the ASD group and less than the control group, there was no significant difference between the groups, the group effect in the interest analysis and the linear relationship between the groups drew attention.

**Conclusion:** It was observed that the results of eye tracking tasks differed significantly between ASD patients and healthy controls. In the tasks consisting of video stimuli, the group effect for the focusing times on the faces and the results approaching the separation from the controls were observed for the OCD group.

## The Lived Experience Causal Influence of Early Course Psychosis Delusional Themes on Psychological and Social Consequences in a Large Ethnically and Culturally Diverse Urban Sample

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**Introduction:** Targeting specific delusion components potentially offers an augmented CBT intervention but a literature gap currently exists to guide Early Intervention in Psychosis (EIP) CBT staff about specific delusional cognitive themes and their possible subsequent psychosocial consequences after a first episode psychosis. Knowledge of this could help guide early intervention CBT for delusions aimed at the delusional theme itself or its causally implicated psychosocial consequences.

**Method:** The study took place in a London UK EIPS as part of a registered Quality Improvement project. The patient sample (N=400) was the most ethnically and culturally diverse sample of early course psychosis delusion patients to be reported to our knowledge. Previous carer surveys in our service have found that the majority of parents of our patients were not born in the UK and speak English as a second language. The study employed a secondary analysis design to assess the impact of different delusional themes (n=21) on psychological (n=13) and social (n=13) consequences (problem or benefit), examining patient case notes from the LESS project. Delusion-psychosocial consequence pairs were recorded when a causal relationship was identified based on patients' reported lived experiences, or where unavailable, from staff/caregivers. Delusional theme and psychosocial consequence prevalence rates were determined by recording their presence/absence. Furthermore, a clustering analysis was conducted on the causal pairs to identify if themes/consequences formed any single or co-morbid subgroups.

**Results:** A diverse range of delusional themes were reported including persecutory (93%) and religious (35%). Over three-quarters (76%) of patients reported at least one psychological (e.g. anxiety) or social (e.g. isolation, family, legal) consequence. Overwhelmingly, it was persecutory delusional theme that showed most of the negative psychosocial consequences. Utilising a K-means clustering algorithm and dimensionality reduction techniques, a framework of delusion-consequence relationships was established. Twelve psychological and twelve social clusters of varying size were identified. The clustering analysis indicated, in particular, varied psychosocial problems associated with persecutory delusions, such as anger or sadness, depending on the co-occurrence of other delusions.

**Discussion:** The prevalence pattern of delusional themes and associated psychosocial consequences we found may reflect cultural factors. Theoretically, our results can inform models of delusions which account for delusional consequences. Clinically, the results can inform CBT formulations and suggest theme/problem therapeutic targets for both patient and family intervention CBT. Potentially, the results might help classify patients as needing early intervention CBT intervention for a single versus multiply clustered set of problems. The results can also inform staff training and patient psycho-educational normalisation.

**Conclusion:** This large-scale study offers insights into the prevalence and psychosocial consequences of early course delusional themes and their psychosocial sequelae. The findings inform CBT clinicians to provide more personalised CBT for diverse communities.

## Investigating the Mediating Effect of Difficulty in Emotion Regulation in the Relationship of Early Maladaptive Schemas with Couple Burnout in Married Women

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**Introduction:** The aim of this study was to investigate the relationship between early maladaptive schemas and couple burnout levels of married women. The hypothesis that difficulties in emotion regulation would mediate the relationship between schema domains and levels of couple burnout was tested. In addition, it was examined whether women's sociodemographic variables provided any differentiation in terms of schema domains, levels of couple burnout, and levels of emotion dysregulation.

**Method:** The sample of the study consisted of 400 women between the ages of 22 and 60 who have been married for at least 2 years residing in Istanbul. Socio-demographic Information Form, Young Schema Scale Short Form-3 (YSQ-SF), Couple Burnout Scale, and Difficulties in Emotion Regulation Scale (DERS) were used to measure the variables of the study. Pearson correlation, simple regression and multiple linear hierarchical regression analyses were applied to analyze the study's main hypotheses. In addition, independent groups t-test and one-way ANOVA analyses were used to determine the differences in the variables of the study according to sociodemographic variables.

**Results:** In the study, a significant positive relationship was found between maladaptive schema domains and couple burnout. Similarly, a significant positive correlation was found between couple burnout and emotion regulation difficulties. Along with the relationship between the variables, the predictive effect was examined, and it was found that the five sub-dimensions of early maladaptive schema domains and emotion regulation difficulties predicted couple burnout. Difficulty in emotion regulation was found to have a partial mediating effect in the relationship between early maladaptive schema domains of disconnection, impaired autonomy, other orientation, high standards and suppression, and couple burnout. In addition, it was found that emotion regulation difficulties had a full mediating effect on the relationship between impaired boundaries and couple burnout.

**Discussion and Conclusion:** The study shows that the relationship between early maladaptive schemas of married women and couple burnout occurs through emotion regulation difficulties. Since similar variables have not been studied together before, these findings emphasize the importance of burnout experienced in marriage and contribute to the literature in terms of treatment and preventive interventions.

**Keywords:** Early maladaptive schemas, couple burnout, emotion regulation difficulties

## A Multinational Systematic Narrative Review of the Clinically Significant Features of Auditory Verbal Hallucinations: Implications for Early Intervention CBT

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**Introduction:** Auditory Verbal Hallucinations (AVH's) are the most common form of hallucination occurring in psychosis (e.g. Waters et al., 2012). CBT for psychosis (CBTp) is the individual therapy with the greatest evidence base for this population (NICE, 2014) but treatment effects are moderate at best (Lincoln & Peters, 2019). These findings suggest a need to review the CBT model of psychosis by investigating what the clinically significant features of AVHs are, whether these are consistent across cultures, and whether these are captured within current CBTp models. This multinational review summarises the evidence for features of AVH's in the early course of psychosis in the content, beliefs and topography domains that are associated with clinically important variables in the domains of the course of illness, co-morbidity, consequences of illness, cause of content and response to CBT treatment.

**Method:** A systematic narrative review was conducted and registered on PROSPERO (CRD42021256220). Medline and Psychinfo databases were screened alongside a manual journal search of relevant journals to obtain new publications. The search was limited to English language [HCD(1)] and updated until April 2023. Qualitative and quantitative studies were included with participants aged 18 and above diagnosed with psychosis and in the early course (mean <3 years of psychosis). Results were synthesised and formulated into tables organised by topography, belief and content features, reporting on the AVH feature, its clinical significance and study design characteristics.

**Results:** Data was extracted (N=25 papers) spanning nine nations: Turkey, Poland, Australia, Norway, United-Kingdom, India, Peru, Brazil and China, and comprised a diverse range of ethnicities (N = 1610). Inter-rater reliability ratings of study inclusion/strength between co-authors (JB and TG) was good (Cohen's kappa = 0.7). Thirty-eight features of AVHs are associated with a diverse array of clinically significant variables in early psychosis. Multiple belief, content and topography features were associated with co-morbidities, cause and consequences of the AVH's. No studies tested the responsiveness of content features of voices to CBT. One topography feature was associated with a positive response to CBT. Three belief-based features of AVH's were associated with a positive treatment response to CBT.

**Discussion:** Specific beliefs about AVH's and specific AVH content dimensions in the early course of psychosis have the most evidence for clinical significance. Gaps and design limitations of this literature are discussed. The broadness of the review inclusion criteria allowed all levels of evidence to be examined.

**Conclusion:** This review provides a template to contribute towards a clinical assessment protocol for early intervention CBT. The evidence-based AVH features highlighted here may inform CBT formulations to help explain causes and consequences of AVH's. The AVH features and their consequences also represent specific potential therapeutic targets for early intervention CBT.

## Use of Conversational Agents in Improving Young Population Mental Health: A Scoping Review

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**Introduction:** Despite the growing body of research interested in developing and evaluating automated conversational agents such as chatbots, avatars and robots for addressing emotional problems among young people, the literature on this topic has not been yet characterized. Therefore, the objective of the current paper is to map out the status of automated conversational agents as tools to improve the emotional component of mental health in children, adolescents, and young adults.

**Method:** Our scoping review adheres to the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) guidelines. A comprehensive search was conducted in 6 databases using a combination of terms related to conversational agents, age, and role. Initially 9905 unique studies were identified, 26 studies were included. Studies aiming to design/develop or test the usability, feasibility, efficacy, or economic cost effectiveness of an automated conversational agent as a tool to improve a mental health outcome among children, adolescents, and young adults (age≤25) were included.

**Results:** More often, automated conversational agents targeted anxiety and depression, in young adults, had a preventive role and were guided by Cognitive Behavioral Theory. Usability/feasibility and effectiveness outcomes were reported in 24 studies, while only 2 articles focused exclusively on describing the development of conversational agents. Approximately half of feasibility/usability and evaluation studies used a controlled design. Participants were predominantly recruited from educational settings, followed by hospitals and community settings. Sample size varies between 8 and 233 participants. Overall, the feasibility and usability parameters were reported to be relatively high across studies. However, the safety of using the conversational agents in emotional problems was assessed only in 2 studies, both reporting negative results. In terms of effectiveness, mixed results emerged. For example, when comparing the effect of conversational agents with a control group on anxiety measures, 5 studies reported a positive significant difference compared to control whereas 5 studies found no significant difference. Among uncontrolled studies, a significant decrease in anxiety from baseline to post-intervention was reported in 3 studies while 2 studies reported a negative effect of the conversational agent mediated intervention expressed as an increase in anxiety symptoms. In terms of characteristics of conversational agents, these were predominantly rule-based chatbots using text as communication modality.

**Discussion:** Automated conversational agents represent a feasible and engaging technology to deliver psychological interventions for emotional problems young people. However, their clinical efficacy is still reduced, despite employing evidence-based protocols for the targeted emotional problem.

**Conclusion:** Automated conversational agents hold potential in providing mental health services for youths and young adults from the usability and feasibility perspective, but more efforts should be concentrated to improve the effectiveness outcomes.

## Aberrant Belief Updating in Depression— How Does Cognitive Immunization Affect Learning from Unexpected Positive Experiences?

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**Introduction:** People with depression often maintain negative expectations despite disconfirming positive experiences. These experiences are often considered invalid or regarded as an exception. This process is referred to as “cognitive immunization”. Cognitive Immunization can be an obstacle to interventions aimed at learning from new experience, such as behavioral experiments. In our study, we aimed to replicate that immunization modulates belief updating in major depression. Further, we examined whether people with episodic and persistent depression differ in their belief updating, and how other cognitive factors (i.e., attention, memory & interpretations) relate to immunization.

**Method:** 139 inpatients (18–75 years) diagnosed with major depression were examined. Participants completed a false-feedback task, in which they received unexpectedly positive feedback. After receiving feedback, participants underwent one of four experimental conditions: immunization inhibition, immunization promotion, attention control group, neutral control group). In the immunization modulation conditions, participants read a text that presented the feedback as particularly valid (immunization inhibition) or invalid (immunization promotion). The primary outcome was change in participants’ performance expectations from before to after feedback (or after the experimental manipulation, respectively).

**Results:** There was no significant difference in belief updating between the experimental conditions (generalized expectations:  $F(3, 135) = .79$ ,  $p = .499$ ); task specific expectations:  $F(3, 135) = .57$ ,  $p = .637$ ). To our surprise, across the groups, participants updated their expectations in a positive direction (generalized expectations:  $F(1, 135) = 86.96$ ,  $p < .001$ , partial  $\eta^2 = .392$ ; task specific expectations:  $F(1, 135) = 24.66$ ,  $p < .001$ , partial  $\eta^2 = .154$ ). This pattern did not differ between people with episodic and persistent depression. Overly negative interpretation of the feedback weakly correlated with a lower task specific expectation update, but not with generalized expectation update. There was no significant correlation between expectation update and memory. In contrast to previous studies, the results of the manipulation check indicate that the manipulation was largely unsuccessful in manipulating participants’ appraisal of the feedback.

**Discussion:** The non-significant differences between the experimental conditions are most likely due to the failure of the immunization manipulation. This may be attributed to some procedural differences between the present study and prior studies (e.g., diagnostic interview prior completion of the paradigm, differences in the sample). Further, the manipulation might not have been sufficiently strong to modulate immunization. Stronger manipulation could be achieved through simpler wording and the use of videos instead of text. The unexpectedly overall positive expectation update may be accounted for by the failed manipulation or the lack of comparison to a healthy control sample. The same applies to the results regarding the diagnosis and the other cognitive factors.

**Conclusions:** Our study failed to replicate the effect of immunization on belief updating in depression. Future research may aim to use a stronger manipulation to manipulate immunization successfully. To further examine the effects of immunization on experiential learning, future studies may also consider using more naturalistic experimental designs, e.g., investigating real social interactions.

## Trauma, Posttraumatic Growth and Some Related Variables: Comparison of LGBT+ and Heterosexual Individuals

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Posttraumatic growth (PTG) is an experience of positive changes in various areas of life (e.g., relationships with others, new possibilities, etc.) as a result of the struggle with highly challenging life crises (Tedeschi and Calhoun, 2004). Although challenging events leading to growth is not a new concept as is emphasized in spirituality, PTG has become a topic of academic research over the last four decades. One of the most important models for PTG is the Functional-Descriptive Model (Tedeschi and Calhoun, 2004). Organismic Valuing Theory of Growth (Joseph and Linley, 2005) is also an important model to understand the concept of PTG. These models suggest that traumatic events have destructive effects on people’s schemas, assumptions, and beliefs as well as the importance of rebuilding them in order to experience PTG. Researchers who established these theories also mention different variables (e.g., social support, personality traits, etc.) that support the process of PTG (Tedeschi and Calhoun, 2004; Joseph and Linley, 2005). Schaefer and Moos (1998) suggest that social conditions are also influential in the process of appraising the trauma and the outcomes that may come along with it. However, these conditions may vary among individuals. Considering LGBT+ who are usually subjected to oppression and discrimination, social conditions may result in different outcomes for them than heterosexual individuals. Therefore, we investigated the differences between a sample (LGBT+) that is seen as a minority in Turkey in which have unideal social/legal conditions and a sample (heterosexuals) that have privileged conditions in terms of gender identity/sexual orientation. We aimed to examine whether there are significant differences between LGBT+ and heterosexual individuals with regard to traumatic stress, PTG and some concepts (social connectedness, perceived support etc. that may be related to them. The sample consisted of 113 people (LGBT+=40, heterosexual=73) participants. We used the Turkish versions of the PTG Inventory (Kağan et al., 2012) to assess and PTSD Checklist for Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (PCL-5) (Boysan et al., 2017) to assess traumatic stress. The Brief Resilience Scale (Doğan, 2015), the Social Connectedness Scale (Duru, 2007), the Perceived Available Support Scale (Kapıkıran and Kapıkıran, 2010) and Acceptance and Action Questionnaire-II (Yavuz et al., 2016) were also used to assess concepts that may be related to traumatic stress and PTG. The data was analyzed with independent samples t-test to compare the scores between LGBT+ and heterosexual individuals regarding the variables mentioned above. The results revealed that all of the variables but PTG differed significantly between LGBT+ and heterosexual groups. The scores on resilience, social connectedness, and perceived available support were significantly higher in heterosexuals than in LGBT+ individuals. However the scores on posttraumatic stress and psychological inflexibility were significantly higher in LGBT+ individuals than in heterosexuals. We will discuss these findings with regard to traumatic stress and PTG along with what the results could mean for social conditions and cultural diversity as well as CBT with minorities.

## The Faux-Pas Recognition Test: Validation of Different Evaluation Algorithms

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**Introduction:** Theory of Mind (ToM) refers to the ability to attribute mental states to others. ToM impairments are common in many mental disorders. There is no consensus on how to measure ToM best. The Faux Pas is a popular ToM task, however, there is no agreed upon method to analyse its results. The Faux Pas presents 10 stories that contain a social faux pas and 10 control stories that do not contain a faux pas. Depending on the version, each story is followed by up to 6 questions that assess ToM and 2 attention checks. In the literature, 10 different algorithms for coding the faux pas were reported, differing in the inclusion and exclusion of the questions. Validation of each algorithm was not available. To identify and validate the best algorithm we tested which algorithm was best suited to differentiate between a community and clinical samples and which algorithm showed the highest correlation to other ToM measures.

**Methods:** ROC analyses compared which algorithm differentiated best between the community sample with 59 participants and the three independent clinical samples with patients with depression (48), posttraumatic stress disorder (54) and borderline personality disorder (44). Additionally, correlations between Faux Pas and Reading the Mind in the Eyes test (RMET) were assessed.

**Results:** The algorithms differed substantially in their ability to differentiate between the community and the clinical samples as well as in their correlation with the RMET. We will present the optimal algorithm to analyse the Faux Pas.

**Conclusions:** This work provides a comparison and validation of the analysis method of a central ToM measure. ToM is a crucial dimension underlying mental disorders; improving ToM measures is necessary to deepen our understanding of mental health.

## The Feasibility, Acceptability and Preliminary Efficacy of a Group Intervention Aimed at Reducing Social and Emotional Loneliness: A Pilot Study

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**Introduction:** In 2021, 11% of the population in the Netherlands reported feeling severely lonely. This makes loneliness a major problem. Loneliness is often a temporary state because loneliness motivates individuals to connect with others. However, negative cognitions such as negative interpretation of social cues, or negative emotions such as anxiety, can prolong the experience of loneliness. Chronic loneliness is related to health problems, as well as psychological problems such as depression and anxiety. Moreover, loneliness is often related to social isolation.

Challenging negative cognitions seems most effective for loneliness, but increased levels often remain after these interventions. Moreover, the literature distinguishes between social and emotional loneliness, but this was not often taken into account in previous intervention studies.

Further research into an intervention to reduce social and emotional loneliness is needed. This pilot study investigates the feasibility, acceptability and preliminary efficacy of a protocol-based cognitive behavioural therapy group intervention. The goal of this intervention is to reduce social and emotional loneliness.

**Method:** Participants are recruited through posters at the University of Amsterdam. Inclusion criteria are: a minimal level of moderate loneliness based on the De Jong-Gierveld Loneliness Scale, being older than 16 years and proficient in English. An exclusion criterion is the presence of severe (psychiatric) problems, as indicated by the Mini International Neuropsychiatric Interview (MINI; Sheehan et al., 1998).

To motivate and sustain a change in social behaviour, the intervention focuses on awareness of values. These values serve as an inspiration for a socially oriented goal, which participants will work towards. The intervention incorporates cognitive-behavioural therapy techniques and positive psychology exercises to promote social interaction and develop skills to reduce negative emotions and thoughts. The intervention is designed as a course to lower the barrier to participation and is offered in a group of five to ten participants, provided by two trainers.

Prior to the intervention, there is a baseline period. Then, the intervention consists of seven weekly 120-minute group sessions and a booster session. Data are collected at screening, pre-test, post-test, one-month and three-month follow-up, as well as in weekly measurements during the baseline period and the course. Ratings of sessions by participants and drop-out are included to measure feasibility and acceptability. Preliminary efficacy is measured using the De Jong-Gierveld Loneliness Scale (social and emotional loneliness) and the Lubben Social Network Scale (LSNS; social isolation) as primary outcome measures. The Social Interaction Anxiety Scale (SIAS; social anxiety), Center for Epidemiological Studies Depression Scale (CES-D; depression) and Daytime Functioning (daily functioning) are administered as secondary outcome measures. Another pre-specified outcome measure is the Inventory of Interpersonal Problems-32 (IPP-32; interpersonal problems).

**Results:** The intervention started in May 2023. The results will be presented at the congress.

**Discussion and Conclusion:** To our knowledge, this is the first protocol-based group intervention aimed at reducing loneliness that integrates elements from cognitive behavioural therapy, personal values and positive psychology. If this intervention proves feasible and is well received by participants, its effectiveness will be investigated on a larger scale in a randomised controlled trial.

## The Contextual Factors Contributing to the Discrepancies Between Child and Parent Reports on Child's Mental Health Problems

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**Introduction:** Understanding discrepancies between child and parent reports on child mental health has clinical importance in the context of identifying mental health problems and, assessing treatment outcomes. This study aims to 1) examine the extent of agreement between child and parent-reported child anxiety symptoms, depression symptoms, hyperactivity/inattention and conduct problems, and 2) assess the contribution of the child, parent/family, and community factors in explaining observed discrepancies between child and parent reports of child anxiety, depression, hyperactivity/inattention and conduct problems.

**Method:** This study uses data collected as part of the baseline assessment in a large randomised controlled trial in 84 primary schools in England (Identifying Child Anxiety Through Schools: Identification to Intervention (iCATS-i2i))<sup>1</sup> The sample includes >1,000 children (aged 8-9 years) and their parents. Anxiety and depression symptoms were assessed using the child- and parent-report versions of the Revised Children's Anxiety and Depression Scale (RCADS-C/P), and conduct problems and hyperactivity/inattention were assessed using corresponding subscales of the child- and parent-report versions of the Strengths and Difficulties Questionnaire (SDQ-C/P). We will examine the level of agreement (intra-class correlation, ICC) between child and parent reports on the RCADS-Anxiety scale, RCADS-Depression scale, SDQ-conduct problems subscale, SDQ-hyperactivity/inattention subscale, and calculate discrepancies between child and parent ratings for each measure using standardised difference scores. Hierarchical regression analyses will be used to examine the contribution of the following factors to discrepancies between child and parent reports: child factors (gender, ethnicity, perceived health); parent/family factors (parent age, income, relationship to the child) and community factors, including school characteristics (proportion of pupils: eligible for free schools meals (an indicator of deprivation), on special educational needs support, with English as an additional language) and neighbourhood characteristics (urbanity, vs rurality, neighbourhood deprivation). Statistical analysis will be conducted using SPSS, version 25.

**Results:** Analyses are ongoing and will be complete by September 2023. The strength of agreement between child and parent-reported child anxiety symptoms, depression symptoms, hyperactivity/inattention and conduct problems will be presented, using standard classifications for intra-class correlation coefficients (<0.5=poor; 0.5-0.75=moderate; 0.75-0.9=good; >0.9=excellent). Standardised child-parent discrepancy ratings for the four mental health measures and associations between child, parent/family and community factors and these discrepancies will be presented including regression coefficients, the amount of variance explained by each factor ( $R^2$ ), and the increments of change ( $\Delta R^2$ ) in the variance with each added level of factors with 95% CI and  $p < .01$ .

**Discussion:** Implications for child mental health assessment across research and clinical settings will be discussed.

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## Developing a Cognitive Behavioral Therapy and Virtual Reality (CBT+VR) Intervention Protocol for Athletes with Anterior Cruciate Ligament (ACL) Injury

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**Introduction:** The psychological issues that develop from severe sport injuries, such as anterior cruciate ligament (ACL) injuries, can make return to sport difficult. Although various coping methods for these issues have been proposed, few structured intervention plans have been created. This study aimed to develop a structured intervention protocol based on Cognitive Behavioral Therapy (CBT) enhanced with virtual reality (VR) to help athletes dealing with re-injury anxiety, kinesiphobia, rehabilitation adherence, and self-efficacy issues following ACL surgery.

**Method:** A multidisciplinary team, comprising four researchers with expertise in CBT and sport psychology and one computer scientist collaborated to develop the CBT+VR protocol. The first phase involved constructing a CBT intervention, followed by the creation of VR exposure scenarios in the second phase. In the third phase, immersive videos shot from the perspective of actual basketball, volleyball, and soccer players were completed for the scenarios. The videos were then presented as cine-VR experiences using a mobile VR head-mounted display in the fourth phase. The feasibility of the CBT+VR intervention protocol was assessed in the final phase with four athletes (three males and one female, aged 21 to 29 years) who had undergone ACL surgery and were between the 7th and 12th week of rehabilitation. 10 weekly sessions lasting 1.5 hours were conducted. Psychophysiological anxiety data were collected during the sessions using biofeedback devices. Participants filled out the Tampa Scale for Kinesiphobia (TAMPA), Re-Injury Anxiety Inventory (RIAI), Sport Injury Rehabilitation Adherence Scale (SIRAS), and Athletic Injury Self-Efficacy Questionnaire (AISEQ) at the beginning and end of the sessions. Individual interviews were conducted following the 10th session.

**Results:** Although there were no statistically significant differences between the initial and final measurements of the AISEQ ( $Z = -1.604$ ;  $p > .05$ ), RIAI ( $Z = -1.604$ ;  $p > .05$ ), SIRAS ( $Z = -1.000$ ;  $p > .05$ ), and TAMPA ( $Z = .000$ ;  $p > .05$ ), 3 participants stated that they found the sessions helpful and that their anxious thoughts about the rehabilitation process and returning to sport decreased. 1 participant noted that there was no change in his anxiety because he was not very anxious at the beginning, but after the sessions, he was able to adhere better to physical therapy and became more disciplined in doing home exercises. The most noteworthy adjustment made in the process of finalizing the protocol after feasibility testing was to lower the number of sessions to 7 because participants reported that 10 sessions were not sustainable and that there was repetition across sessions.

**Discussion:** It is clear that athletes may experience psychological issues after ACL surgery and that a structured intervention approach may have utility in addressing these problems. As suggested by feasibility testing, the CBT+VR intervention protocol has the potential to meet this need and enable athletes to return to sport more effectively.

**Conclusion:** The findings suggested that the CBT and VR components of the intervention developed to give psychological support to athletes undergoing rehabilitation following ACL surgery are ready for implementation. CBT+VR is an easy-to-use, structured protocol.

## Efficacy of Narrative Exposure Therapy Among Adolescent Female Survivors of Human Trafficking In India: A Pre-Post Intervention Study

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**Background:** Human trafficking, a form of gender-based violence, is considered modern slavery and constitutes a set of labour and sexual crimes that violates the rights of survivors with detrimental psychological consequences and trauma sequelae. India is one of the largest portals and destination grounds for the trafficking and sexual enslavement of young girls. It is home to an estimated 14 million survivors, including sex trafficking, bonded labour, child labour, domestic servitude and forced marriage. Although this population has received considerable attention from psychosocial organizations, very little clinical research has been conducted on adequately supporting and treating these groups. Given the scarcity of evidence and the need for effective interventions for this group, it is vital to assess the efficacy of a novel short-term manualized treatment, Narrative Exposure Therapy (KIDNET), among survivors of human trafficking.

**Objective:** This pre-post intervention study aimed to investigate the efficacy of Narrative Exposure Therapy (KIDNET) compared to a Waitlisted Control Group in improving trauma symptomatology, psychological distress, anxiety, and depression.

**Methods:** The study was conducted at a shelter home for minor girls, run by the Department of Women, Child Development & Social Security, Govt. of India, using purposive sampling. After conducting a sample size estimation, 30 adolescent girls between the age of 13 to less than 18 years were enrolled in the study. To ensure eligibility, participants underwent screening using assessments of the Trafficking Victim Identification Tool (TVIT), Mini-International Neuropsychiatric Interview for Children and Adolescents (MINI KID), Life Events Checklist (LEC), Standard Progressive Matrices (SPM), and Kessler's Psychological Distress Scale (K10). Random allocation was used to assign participants to the Clinical (N = 20) or Waitlisted Control (N = 10) group. Outcome measures included the Clinician-Administered PTSD Scale, Kessler's Psychological Distress Scale, Beck's Anxiety Inventory (BAI) and Patient Health Questionnaire (PHQ - 9). Baseline and post-intervention measurements were collected from the participants' pre- and post-delivery of KIDNET. Statistical analysis was conducted using descriptive statistics and repeated measures ANOVA.

**Results:** The study shows that the clinical and control groups exhibited comparable socio-demographics, clinical parameters, and baseline symptom scores. Significant improvements were seen in trauma symptomatology, psychological distress, depression, and anxiety in the clinical group post-delivery of KIDNET sessions, compared to the waitlisted control group indicating therapeutic efficacy.

**Discussion:** The findings of our study demonstrate evidence regarding the efficacy of KIDNET in Human Trafficking survivors in India, a population that has been understudied and received only limited access to mental health care so far. The findings show that KIDNET improved post-traumatic symptomatology and reduced psychological distress, anxiety and depressive symptoms in adolescent survivors of Human Trafficking.

**Conclusion:** This study is a small attempt to study the efficacy of KIDNET in providing treatment benefits with effective reduction in trauma symptomatology. It indicates that it is also efficacious in decreasing psychological distress and improving scores of anxiety and depression, suggesting that it may be a potentially effective therapeutic intervention for adolescent survivors of human trafficking in India.

**Keywords:** Trauma Symptomatology, Psychopathology, Narrative Exposure Therapy, KIDNET, Adolescents, Human Trafficking, Intervention Study

## Parental Acceptance/Rejection, Social Emotional Competencies and Bullying Victimization: A Moderated-Mediation Model

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Bullying is a common issue among children and adolescents. A recent study has estimated that 30.5% of children and adolescents (95%CI: 30.2 - 31.0) had been the victims of bullying on one or more days in the previous 30 days (Biswas et al., 2020). Internalizing problems such as depression, anxiety, low self-esteem, and poor academic performance are examples of related issues (Sourander et al., 2007) associated with bullying victimization. Some of the aforementioned problems can continue over time, their negative effects frequently having lasting impacts into adulthood (Schoeler et al., 2018), resulting in a persistent vulnerability. Generally, school bullying is perceived as a group phenomenon (Salmivalli, 2014), but there is a significant body of research showing increased relevance of parental factors regarding peer victimization. One such factor is parental acceptance and rejection, as described by Interpersonal Acceptance-Rejection Theory (IPARTheory) (Rohner, 2021).

High perceived parental rejection and low perceived parental acceptance seem to be associated with negative developmental outcomes for children, such as depression, externalizing problems and school difficulties (Khaleque & Rohner, 2012). Specifically, longitudinal evidence demonstrates that parental rejection at Time 1 significantly predicts bullying victimization at Time 2 (Stravinides et al., 2018). Correspondingly, another study found that the association between maternal rejection and victimization is mediated by depressive symptoms, and that paternal acceptance is a significant moderator of this relationship (Papadaki & Giovazolias, 2014). Apart from depressive symptoms, low levels of social and emotional competencies have been associated with both less perceived parental acceptance (Peixoto et al., 2021) and bullying victimization (Rodríguez-Álvarez et al., 2021). Despite growing evidence of the importance of parental acceptance on child outcomes, we still lack complex understanding of the mechanisms underlying vulnerability towards victimization and bullying.

Consequently, the present study aims to assess the mediating role of social-emotional competencies in the relationship between maternal rejection and bullying, respectively bullying victimization. Subsequently, we aim to test the moderating effect of paternal acceptance on 'maternal rejection - social and emotional competencies' and 'social and emotional - bullying/victimization' relationships.

Participants comprised of 728 students (48,48% girls) aged 11 to 15. The analysis were conducted in RStudio. Results indicated that maternal rejection negatively predicts both bullying and victimization. Social and emotional competencies significantly mediated the relationship between maternal rejection and bullying, but not maternal rejection and victimization. Paternal acceptance was a significant moderator only for the 'maternal rejection - social and emotional competencies' relationships.

The implications of the current study involve a better understanding of the mechanisms explaining the association between maternal rejection and bullying, by presenting social and emotional competencies as a mediator of this relationship. At the same time, it contributes to advancing bullying prevention and intervention programs, by addressing not only school or personal factors, but also home stability and parent-child dynamic. Helping families with learning how to express more warmth and acceptance towards children might decrease victimization in school-aged children.



## Do OCD Symptom Dimensions Differently Relate to Negative Emotionality? Identification of an Important Confound in Obsessive-Compulsive Measures.

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**Introduction:** Items in measures of psychiatric symptoms often include distressing language or negative tone (e.g., “dangerous”, “disgusting”), which makes them assess distress or negative emotionality (NE; e.g., depression and anxiety). Measures of obsessive-compulsive disorder (OCD) symptoms often include negative tone, which may be justified given the nature of the construct (i.e., distressing symptoms). However, OCD measures typically include subscales for different symptom dimensions (e.g., contamination fear, taboo obsessions), and it can be problematic if some subscales have negative tone but not others. To address this issue, we examined associations between NE and OCD measures and its relationship with inflated negative tone across three studies.

**Methods:** In Study 1, we created two versions of a 16-item Obsessive-Compulsive Symptom Scale (OCSS). Both versions were identical except one had words that evoke negative tone in each item (e.g., I had a painful habit of cleaning or avoiding touching things to reduce the chance of awful contamination), and the other did not (e.g., I had the habit of cleaning or avoiding touching things to reduce the chance of contamination). Undergraduates were randomized to complete the OCSS with negative tone ( $n = 124$ ) or without negative tone ( $n = 124$ ), and the Depression Anxiety Stress Scale (DASS). Pearson correlation analyses and Fisher’s  $z$  method were used to examine correlations between DASS total scores and OCSS versions, and compare correlation coefficients between independent samples, respectively. In Study 2, linguistic inquiry and word count (LIWC-22) was used to quantify negative tone in subscales of nine OCD measures. In Study 3, we selected the three most widely used instruments (i.e., OCI-R, DOCS, PI-WSUR) of the nine instruments from Study 2 and conducted a systematic review of English-language peer-reviewed articles that reported a correlation between at least one subscale of the OCI-R, PI-WSUR and DOCS and at least one measure of NE in an unselected sample (i.e., community or college). Meta-analyses were then performed to estimate the correlations between NE and subscales in these three measures. Correlations were then associated with LIWC-22 scores derived from Study 2.

**Results:** In Study 1, DASS total scores were significantly more correlated with the OCSS with negative tone ( $r = .79$ ) relative to the version without negative tone ( $r = .68$ ),  $z = -1.89$ ,  $p = .03$ . In Study 2, all nine measures had at least one subscale with elevated negative tone (>10%), and at least one subscale with no or minimal negative tone (0-2%). In Study 3, all subscales with elevated negative tone had significantly higher correlations with NE,  $r = .51 - .68$ , compared to other subscales of that instrument,  $r = .29-.44$ .

**Discussion:** Results showed that negative tone can influence correlations with NE. Overall, negative tone represents an important confound in existing OCD measures by inflating correlations with NE in subscales with elevated negative tone relative to those without.

**Conclusions:** Developers of future OCD measures may want to (1) make sure negative tone is even across subscales, or (2) eliminate negative tone from item stems, and instead rely on response options to assess distress.

## Understanding Divergent Trajectories: Self-Ambivalence Indirectly Affects Eating Disorder and Obsessive-Compulsive Symptoms Through Different Feared Self-Themes

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**Introduction:** Eating disorders (EDs) and obsessive-compulsive disorder (OCD) have high rates of comorbidity, and several mechanisms have been identified as common to both diagnostic groups. Despite this overlap, it remains unclear why some individuals develop an ED and others develop OCD and vice versa. Uncertainty regarding one’s identity has been theorized to lead to investment in a feared self (i.e., a version of the self possessing undesired qualities or characteristics) and ultimately lead to symptoms of OCD. Associations between eating pathology and indicators of self-uncertainty as well as fear of self have also been observed, suggesting that this model may be relevant to EDs as well. It is possible that self-uncertainty increases risk for the development of both OCD and ED symptoms, and that investment in differing feared self-themes helps explain the nature of the clinical presentation.

**Method:** A sample of undergraduate and community women ( $N = 138$ ) completed questionnaires assessing self-ambivalence (state of uncertainty and conflicting beliefs about personal characteristics), three distinct feared self-themes (corrupted, culpable, and unattractive feared selves), eating pathology, and obsessive-compulsive symptoms.

**Results:** A path analysis was conducted to examine the indirect effect of self-ambivalence on eating and obsessive-compulsive symptoms through different feared self-themes. As expected, self-ambivalence was related to eating pathology indirectly via the feared unattractive self. In contrast, self-ambivalence was associated with obsessive-compulsive symptoms indirectly through the feared corrupted self. In this model, the feared culpable self was not significantly associated with either symptom type.

**Discussion:** Uncertainty regarding one’s identity, operationalized in this study as self-ambivalence, may be a higher order risk factor conferring risk for both EDs and OCD. Subsequent investment in feared selves with differing thematic content (i.e., feared corrupted vs. feared unattractive) may help to explain why one person develops an ED while another develops OCD.

**Conclusion:** Research of this kind contributes to our understanding of multifinality (one factor increasing risk for different disorders) and divergent trajectories (why an individual may develop an ED while another develops OCD) with the aim of improving transdiagnostic models of psychopathology.

## Investigation of Healthcare Professionals Exposed to the 6 February Türkiye Earthquakes in Hospitals

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**Introduction:** After the 6 February Türkiye-centered earthquakes, there was a great destruction. The disaster affected many cities in Türkiye and Syria, where approximately 15 million people live. Earthquake is one of the most life-threatening, destructive and uncontrollable natural disasters. Depending on the magnitude of the earthquake, it is a disaster that can cause people to lose their homes and loved ones, and cause significant mental health problems (Wu et al. 2014). Health workers are an important part of the response system that is affected by the disaster and expected to provide health services after the earthquake. Our aim in this study was to investigate the psychological effects of the earthquake in healthcare workers who experienced the earthquake in the same hospital.

**Method:** The population of this descriptive and cross-sectional study consists of 32 earthquake survivors, who worked in the same hospital in the 6 February Turkey earthquake and gave first aid to the injured after the earthquake. Sociodemographic data of earthquake survivors, Pittsburgh Sleep Quality Index (PSQI), Dissociative Experiences Scale (DES) and Symptom Checklist-90-Revised (SCL-90-R) results were noted.

**Results:** %53.1 (17) of 32 healthcare professionals with a mean age of 32.44±7.4 years were women. Participants' PSQI average score; It was 11.84±4.89. According to PSQI scores, 90.63% (29) of healthcare professionals have low sleep quality. The mean DES score was 17.04±4.95. Participants' SCL-90-R general symptom, depression, anxiety, and additional scale mean scores were 0.78±0.30, 1.66±0.95, 1.73±1.06, 1.73±0.73, respectively.

**Discussion:** Studies have shown that survivors of natural disasters may experience psychological problems, including post-traumatic stress disorder (PTSD), anxiety disorders, and depression (Norris et al. 2002). Consistent with the literature, in our study, it was observed that the depression and anxiety subcategory scores were higher in healthcare workers affected by the Turkey-centered earthquakes of February 6, 2023. An increase in sleep complaints has been shown after a trauma (Neylan et al. 1998). The most common complaints are difficulty in falling asleep, interrupted sleep, shorter sleep duration, restless sleep, sleep-related respiratory disorders, daytime fatigue, and nightmares (Spoomaker and Montgomery 2008). The most common psychological effect in healthcare workers participating in our study was poor sleep quality. It is particularly noteworthy that healthcare professionals do not seek help for their psychological symptoms.

**Conclusion:** Studies conducted in recent years have shown that disasters have significant negative effects on the mental health of medical response teams (Naushad et al. 2019). The traumatic events that health care workers are exposed to and the stress caused by the nature of their work can make them psychologically vulnerable. Therefore, it is important for healthcare professionals to have access to a good support system, psychological counseling and appropriate stress management techniques. In addition, institutions and health systems should take measures and provide support to protect the psychological health of health workers.

## Effectiveness of a Stepped Cognitive-Behavioral Intervention for Distressed Family Caregivers: Primary Outcome Results of the ReDiCare Study

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**Introduction:** Informal caregivers of individuals with diseases or chronic conditions experience negative psychological, physical, social, and economic impacts. Despite the socio-economic relevance of caregiver intervention research, successful interventions have been infrequently translated into routine services. Hence, the Relieving Distressed Caregivers (ReDiCare) study evaluated the effectiveness of a stepped cognitive-behavioral approach for burdened caregivers in routine care settings.

While previous caregiver interventions have been developed and evaluated for specific caregiver groups (e.g., dementia caregivers, stroke caregivers), this study focused on a broader group of caregivers.

**Method:** A pragmatic randomized controlled trial was conducted. Participants were family caregivers of older adults (N = 438) assigned to either the ReDiCare intervention or a control group receiving routine care. The stepped intervention involved a low-threshold care counselling intervention first. Depending on a rescreening after care-counseling, a telephone-based cognitive-behavioral therapy (CBT) intervention was offered to caregivers who continued to experience high distress. Data were collected at baseline and after 3, 9, and 15 months with depressive symptoms measured with the CES-D as the primary outcome.

**Results:** The results indicate that the ReDiCare intervention had significant effects on depression. Reliable change analyses suggest that the effects of the intervention included both enhancing reliable improvement and recovery from clinical depression scores as well as reducing reliable deterioration and preventing transition to clinical depression.

**Discussion:** The results suggest that stepped cognitive-behavioral interventions for family caregivers delivered within existing routine care structures can effectively reduce depression in distressed family caregivers.

**Conclusion:** To address the serious consequences of the expected increase in the number of family caregivers due to demographic change, evidence-based and cost-effective intervention concepts for family caregivers should be established as part of routine care.

## Aftermath of Kahramanmaraş Earthquake: Resilience, Trauma and Sleep

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**Introduction:** Turkey is one of the regions in the world that has been greatly affected by both natural and human-made traumatic events. The south-eastern part of the country had been disturbed by a series of two devastating earthquakes in February, 2023. Current study aims to explore the aftermath of the series of these disasters and how they impacted emotional functioning, resilience, trauma related symptomatology and sleep disturbances in young people and adults.

**Method:** The sample size was 474 young people and adults aged between 15 and 67, 78 % of them were female. Among all, 11% of them were living in areas exposed to the earthquakes and 7 % have been to affected areas to provide assistance in the aftermath of the earthquakes. Resilience, trauma-related cognitions, PTSD symptoms and sleep disturbances were assessed at a single point by an online survey study. Participants completed Life Events Checklist-5, Impact of Events Scale-Revised, Trauma-Related Cognitions Scale, Brief Resilience Scale, Positive and Negative Affect Scale and Sleep Disturbances Scale along with questions on demographic characteristics. Path Analyses were run to examine the associations between resilience (IV), and PTSD symptoms and sleep disturbances (DVs) where trauma related cognitions hypothesised to mediate these relationships in the models.

**Results:** The hypothesised models demonstrated a good fit to the data. Analyses revealed a significant direct effect of resilience on PTSD symptoms, but this relationship was small in magnitude ( $\beta=-0.15$ ,  $p<0.05$ ). This relationship was mediated by trauma related cognitions ( $\beta=-0.27$ ,  $p<0.05$ ). A similar pattern was observed between the small but significant direct path between resilience and sleep disturbances ( $\beta=-0.18$ ,  $p<0.05$ ). Similarly, this significant path was mediated by trauma related cognitions ( $\beta=-0.16$ ,  $p<0.05$ ).

**Discussion:** Findings of the current study highlights the importance of trauma related cognitions in explaining PTSD symptoms and sleep disturbances in relation to resiliency. Less resilient individuals may be likely to suffer more from PTSD symptoms and sleep disturbances, however their beliefs about traumatic experiences play a significant role in the relationship.

**Conclusion:** Further research should examine the nature of trauma related cognitions to better inform development of interventions targeting PTSD symptoms and sleep disturbances for individuals less resilient towards traumatic life events.

## Heart Rate Variability and Suicidal Thoughts and Behaviour: A Systematic Review

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**Introduction:** As almost 1 million people per year commit suicide, we need to better our understanding of risk factors for suicidal thoughts and behaviour. Even though single risk factors such as male gender, advanced age, social isolation, depressive and psychotic illness, substance use, and insomnia are well-studied, the prediction of suicidal attempts or suicide remains insufficient. Here, the consideration of proximal instead of solely distal risk factors was proposed to be promising. Two highly discussed proximal risk factors for suicidal crisis are heart rate (HR) and heart rate variability (HRV). While a negative association between HRV and depression has been suggested, the relationship between HRV and suicidal crisis as part of depression or without depression remains unclear. We therefore aimed to systematically review the empirical evidence for an association between HR, HRV and suicidality.

The review addresses the primary research questions, if there is an association between HR/ HRV and the intensity or frequency of suicidal thoughts or behaviour.

We are interested, at what point in time within the suicidal crisis HR or HRV changes are observed.

**Method:** The review will be conducted according to the PRISMA guidelines for reporting systematic reviews. The search strategy will comprise a combination of keywords or respectively MeSH terms (in the Pubmed library), Boolean operators and truncation. We will search the database from 2000 until 2023. The PRISMA compliant search query will be applied: suicid\* AND ('heart rate variability' OR 'heart rate' OR 'HRV' OR 'Cardiac Vagal Control' OR 'Cardiac Vagal Tone' OR 'Autonomic Nervous System' OR 'Cardio-Vascular Reactivity'). The search will be undertaken using the PubMed database, the PsychINFO database, the WebOfScience database and the Cochrane database.

Inclusion criteria will be (1) studies, that measured HRV or HR and (2) measured suicidal thoughts or behaviour in (3) clinical populations. Quantitative research studies, published until the 1<sup>st</sup> of June 2023, published in or translated to English, published in a peer reviewed journal will be included.

Exclusion criteria will be (1) studies, that did not measure the intensity or frequency of suicidal thoughts or behaviour by a questionnaire as well as (2) studies, that did not quantitatively measure HR or HRV. (3) Non-peer-reviewed and non-English articles will also be excluded. First, studies will be excluded by screening the title and abstract information. In a second step, the full text will be examined to identify further eligible studies.

**Results:** We will provide a narrative synthesis of the findings from the included studies, structured around measure, type of study (Intervention study, observational study), target population, and the type of outcome. Information will be summarized and reported in accordance with PRISMA reporting standards.

**Discussion:** We will summarize the main findings and will embed them into the broader literature on risk factors of suicidality. Limitations of our study methods will be discussed.

## Anthesis: Preliminary Data on the Preparation and Implementation Steps to Develop a Randomized Controlled Trial of an Internet-Based Intervention for Sexual Distress

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**Introduction:** Sexual dysfunctions (SD) are highly prevalent and threaten sexual health, impacting the well-being of individuals and couples. The component that is nuclear to all SD is sexual distress. However, cognitive-emotional models of sexual response, widely acknowledged as prominent explanatory frameworks for understanding SD, have totally disregarded sexual distress. Similarly, clinical trials in clinical sexology have overlooked sexual distress. So, we want to focus on this neglected central aspect. Also, the most up-to-date empirical evidence supports that transdiagnostic factors are associated with SD, such as neuroticism, cognitive inflexibility, repetitive negative thinking, and emotion dysregulation. These findings are consistent with a transdiagnostic approach to emotional distress, demonstrating that this dimensional approach to sexual distress is worth exploring. In this way, we aim to explore sexual distress as a form of emotional distress linked to specific transdiagnostic factors by testing an online intervention for sexual distress. Online interventions are cost-effective, accessible, and appropriate for individuals experiencing the shame of seeking help for stigmatized behaviors. Therefore, we developed Anthesis, a project that aims to determine the acceptability, feasibility and preliminary efficacy of a transdiagnostic approach that uses an internet-based intervention to reduce the levels of sexual distress of people with SD.

**Method:** A randomized controlled trial (RCT) will be conducted. The trial is a two-arm parallel and open-label. Individuals are eligible for this study if they meet the following criteria: (1) understand Portuguese, (2) be above 18 years old, (3) be in a monogamous relationship for at least six months, and (4) meet criteria for a diagnosis of SD. Eligible participants will be equally allocated to either Group 1 (Treatment As Usual; TAU) or Group 2 (Waiting-list Controlled Condition; WCC). Those allocated to TAU will receive the intervention immediately after randomization, whereas participants allocated to the WCC group will receive the intervention program later. Each participant will have the possibility of carrying out the intervention program, complying with ethical principles. Assessments will occur before the trial's start, at the end, and 3-month, 6-month and 12-month follow-ups. This randomized controlled trial will follow the Consolidated Standards of Reporting Trials guidelines for reporting parallel group trials.

**Results:** We hypothesize that the Anthesis will demonstrate efficacy in improving the outcomes of interest (e.g., sexual distress) in the TAU compared to the WCC. Thus, we hypothesize that mitigating sexual distress in people with SD will minimize the adverse effects of sexual problems on both individual and couple levels.

**Discussion:** This study's findings may significantly impact the community and clinical practice. They may pave the way for a new area of research and practice, offering novel therapeutic possibilities that can be applied across various settings, including private practices, hospitals, and primary care.

## Preliminary Study of the Multivariate Association Between Cognitive Flexibility and Enneagram Personality Typing System

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**Introduction:** Psychological flexibility (PF) can be defined as the ability to adaptively shift one's cognitive processes and responses in the face of changing situational demands. According to the perspective of acceptance and commitment therapy (ACT), the core of psychopathology and human happiness lies in psychological inflexibility (PI). PI includes experiential avoidance, cognitive fusion, attachment to the conceptualized self, avoidant persistence, and a lack of contact with chosen values (1). The modern Enneagram Personality Typing System (EPTS) is an approach that classifies individuals into nine different personality types and explores their development throughout their lives. According to this theory, each type possesses distinct coping mechanisms and cognitive thinking styles. EPTS provides in-depth information about personality traits (2). The aim of this study is to investigate the multivariate association between PF and Enneagram personality types.

**Method:** A sociodemographic form, the Psychological Flexibility Scale, and the Enneagram Personality Types and Subtypes scales were administered to healthy participants via an online survey. All the tests were validated in our language.

**Results:** A canonical correlation analysis (CCA) was conducted using the five psychological flexibility traits as predictors of the nine Enneagram personality types to analyze the multivariate shared relationship between psychological flexibility and Enneagram types. CCA yielded four significant functions, of which the first three had significant effect sizes ( $R^2$ ) of 30.6%, 16.2%, and 12.9%, respectively. The full model was found to be statistically significant (Wilks's  $\Lambda = .470$  criterion,  $F(45, 848.55) = 3.66$ ,  $p < .001$ ). In Function 1, Type 3, Type 5, Type 7, and Type 8 were prominent among the relevant criterion coefficients; in Function 2, Type 3 and Type 6; and in Function 3, Type 1 and Type 3. As for the predictor variables, "Values," "Being present," "Self-as-context," and "Defusion" were found to be the primary contributors in Function 1. Only "Acceptance" in Function 2 and "Values" in Function 3 reached interpretable variance.

**Conclusion:** Our results demonstrate that there may be a multi dimensional association between psychological flexibility and Enneagram personality types, suggesting that further studies are needed to clarify this association.

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## What is Known About Maladaptive Daydreaming? A Scoping Review

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**Introduction:** Maladaptive Daydreaming (MD) addresses a dysfunctional cognitive process characterised by time-consuming and absorption-based fantasising, a mental activity that causes distress and impairment. Attention on MD is increasing rapidly as researchers attempt to: overcome conceptual hurdles to clarify MD from other related concepts; explore MD prevalence in general and academic populations as well as its' relation to other constructs (e.g. worry, attention deficit); and, attend to the populations' needs through the development and cultural-adaptation of assessment tools and interventions for mental health professionals' use. With the rise of MD research, a comprehensive assessment of the evidence is underway. We mainly question "What is known from the literature about Maladaptive Daydreaming in all age frames and contexts?" and aim to explore: the MD definition; procedural characteristics of MD research; and, map knowledge on the clinical manifestation of MD.

**Method:** This ongoing ScR is guided by the updated Arksey & O'Malley Framework and PRISMA guidelines. After a preliminary literature review, we defined a search strategy and searched MEDLINE, EBSCO PsychInfo, Scopus, and Web of Science databases for relevant results. We are currently making the ScR protocol available on Open Science Framework. We will also be verifying additional reference lists and grey literature as a part of our search strategy to retrieve all relevant results for the selection process. The extraction of results from the databases is currently an ongoing process that will follow a duplicate removal process and two-phase (title/abstract and full-text) screening procedure based on eligibility criteria facilitated by Rayyan software. Eligibility criteria are designed to include peer- and non-peer-reviewed English-written studies with original data on MD specifically and exclude studies with other concepts of the broader topic of stimulus-independent thought (e.g., mind-wandering), books, editorials, and other non-original data studies. The included articles will be analyzed through quantitative descriptive statistics and qualitative content analysis methods to summarise existing literature on MD.

**Preliminary results and Discussion:** During our preliminary search process, we have already identified 40-100 relevant results in each database. We verified that the most relevant results are found in more than one database. In this sense, the duplicate removal process will reduce the number of studies to be screened for eligibility in the next step of this ScR. Our main findings will summarise the general procedural characteristics of the included research, specifically by addressing geographical and temporal details on the conduction of the research as well as research details on study objectives and hypothesis, methodological approach, assessment measures, etc. Researchers' MD definitions will be analysed to identify common and distinctive aspects. Main themes and study outcomes will be explored to summarise and address our research aim while also identifying the limitations of existing literature. The final results and discussion of the retrieved results will be presented at the conference.

**Conclusion:** With this ScR, we provide a comprehensive overview of the existing empirical evidence on MD, while providing a summarised review of MD knowledge and suggest further directions for researchers in the field.

## Mental Health and Well-Being of Asylum Seekers From Ukraine in Switzerland and Other European Countries

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**Introduction:** The war in Ukraine has caused a humanitarian crisis and widespread suffering, of which migration within and outside the country has been one of the most significant factors.

The search for safe shelter and resettlement has had a powerful impact not only on people's well-being but also on their mental health. Affected people are exposed to a large number of stressors that can have both immediate and long-term consequences.

These include exposure to violence, separation from or loss of loved ones, inadequate living conditions, poverty, food insecurity, physical injury and illness, and lack of access to services such as health, education and social welfare. This is the situation now with many Ukrainian who left their homes and cities of residence.

**The purpose:** of this study is to investigate mental health problems of asylum seekers from Ukraine and empirically identify current levels of distress and the most typical manifestations of mental health problems among Ukrainian people.

**Method:** In the first stage of the study, was used a scientific-theoretical analysis to identify the most typical operationalizable practical approaches in contemporary research on refugee mental health. In the next stage, an empirical study of the mental health of Ukrainian refugees was conducted on the basis of an online questionnaire developed to diagnose components of mental disorders and life well-being. An online questionnaire based on standardised self-report was developed, including: the Brief Symptom Inventory (BSI), Post Traumatic Stress Disorder (PCL-5) symptoms, Pittsburgh Sleep Quality Index (PSQI), Sense of Coherence (SOC), Refugee Post Migration Stress Questionnaire (RPSM), Difficulties in Emotion Regulation Scale (DERS-D), and Socio-Demographic Data.

**Results:** Initially, the study analysed the possibilities of different approaches in studying mental disorders and identifying their symptoms. The possibilities of the traditional clinical approach, the biopsychosocial approach and the cross-cultural clinical-psychological approach in addressing the problem were examined.

The biggest differences among asylum seekers of different groups were found in the manifestations of symptoms of depression, anxiety, post-traumatic stress and post-migration stress, as well as in global index of distress severity and sense of coherence.

The results of the survey now are being finalised and will be finalised before Congress.

**Discussion:** An analysis of the main research approaches has shown that there are advantages in using each of them to illuminate different aspects of the mental health problems of the target group under investigation.

It is also important that people usually start to feel better gradually if the symptoms of the disease are detected in time, including the symptoms of mental disorders considered in our study.

**Conclusion:** This study confirms the relevance of research of problems of mental health of asylum seekers from Ukraine and shows the most significant stressors and the most common symptoms of mental illness. The results of the study will help to reduce at least some of the stressors, improve psychoprophylactic, psychoeducational work and psychosocial support with asylum seekers in general.

## Dimensional Relationship between Enneagram Personality Types and Personality Beliefs: A Preliminary Study

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**Introduction:** The modern enneagram personality theory (EPT) consists of nine different personality types, three subtypes, and their development across the lifespan (Hook et al., 2021). EPT identifies three centers of psychological functioning, including mental, emotional, and somatic and each type uses one of these centers more dominantly than the others (Alexander & Brent., 2020). The cognitive theory of personality disorders emphasizes the role of dysfunctional beliefs as a prominent feature. According to cognitive theory of personality disorders, each personality disorder has a characteristic set of dysfunctional beliefs. The behavior patterns of the different personality disorders are viewed as overt manifestations of the underlying cognitive structures (Beck, Freeman, & Associates, 1990).

**Aim:** In the present study, we aimed to reveal the latent relationships of Enneagram personality and personality beliefs, which offer very important and different perspectives within the scope of human emotion, thought, behavior and personality traits, through personality tests validated in our country. **Methods:** We distributed the sociodemographic questions, Enneagram Types and Subtypes Inventory (ETASI) and Personality Belief Questionnaire-Short Form (PBQ-SF) to 203 healthy people through google forms. ETASI and PBQ-SF were validated in Turkish language.

**Results:** Canonical correlation analysis (CCA) was conducted to examine the dimensional relations between Enneagram types, subtypes and personality beliefs at multivariate level. ETASI types and subtypes were determined as a dependent variable sets, PBS sub scales were determined as an independent variable set. CCA yielded five significant canonical functions for the pair of enneagram types and personality beliefs (CCA-1;  $Rc1=0.345-0.725$ ), three significant canonical functions for the pair of enneagram subtypes and personality beliefs (CCA-2;  $Rc2=0.313-0.581$ ). Inspection of the top two strongest functions in CCA-1 ( $Rc2=52.7\%$  and  $45.9\%$ ) shows that they are explained by distinct predictor personality traits and form a well-defined opposing latent dimension. Dependent (-0.693), schizoid (0.437), borderline (-0.578) personalities have substantial loadings of variance in first dimension predicting the ETASI. On the other hand, obsessive-compulsive (-0.789) trait has marked loadings oppositely in second strongest function.

**Conclusion:** Preliminary results suggest that ETASI was multidimensionally predicted by personality beliefs in discrete patterns. The loadings on the five canonical variate sets obtained were consistent with previous studies and replicated in Turkish culture as supported by well-established personality theories. (Newgent et al., 2004). The demonstration of the latent relationships of theories with different frameworks has provided deep insight into enneagram personality types.

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## Is Measuring Health-Related Quality of Life Redundant When We Already Measure Symptoms of Depression?

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**Background:** Scales for the measurement of subjective quality of life and well-being are frequently being added to the selection of instruments used in studies that already include scales for measuring symptoms of depression and other aspects of distress. The underlying assumption is that quality of life instruments measure something distinctly different from distress. This assumption is addressed in the present study, by examining whether measuring subjective quality of life using the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS, full and short version) increases the information richness of a study where a widely used scale for measuring symptoms of depression, the Patient Health Questionnaire (PHQ), has already been included.

**Methods:** The present study is based on data ( $n=1690$ ) from a baseline data collection which was carried out as part of a cohort study aimed at examining effects of 'Prompt Mental Health Care' (PMHC), the Norwegian Version of the British 'Improving Access to Psychological Therapies' (IAPT) services. Data analyses included use of bifactor and multiple indicators, multiple causes (MIMIC) bifactor models.

**Results:** (i) The correlations between PHQ and the WEMWBS scales were strong and negative, approaching 0.80 with the full WEMWBS scale when modelled as latent variables, (ii) the associations between PHQ and a set of demographic variables were similar to associations between the WEMWBS scales and the same set of demographic variables, only with reversed signs, (iii) the omega reliability coefficients for the WEMWBS scales, after adjustment for the general (PHQ) factor were low (slightly above 0.30), and (iv) associations between the WEMWBS scales and a set of demographic variables generally disappeared when adjusting for the general (PHQ) factor.

**Conclusion:** Previous studies have found the WEMWBS scales to be valid and precise instruments to measure well-being in primary health care patients with symptoms of anxiety and/or depression. Nevertheless, the findings in the current study indicate that when including measures of subjective quality of life in a study, its overlap with scales measuring symptoms of depression and distress might deserve attention.

## Trauma Exposure in First-Responders: A Closer Look to the Links between Traumas and Mental Health Issues

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**Introduction:** First responders (FR) are the first to arrive and provide help at the emergency scene, such as disasters, accidents, and crime. During professional duties, they are indirectly exposed to aversive details of those traumatic events (APA, 2013), considered Chronic Indirect Vicarious Exposure (CIVE) to trauma. As exposure to trauma is linked with mental health disorders, we aim to: i) Look at the links between trauma and mental health disorders, ii) Look at the prevalence of mental health disorders in an FR population; iii) Validate a model of moderation of distress; iv) Examine the longitudinal changes in a subpopulation.

**Method:** Our convenience sample comprised two hundred and twenty-nine first responders (157 males and 72 females) with an average age of 37.5 (SD=11.5). All participants filled in a set of questionnaires online identifying traumatic events and measuring a variety of mental health disorders. In the longitudinal study, 41 participants of the 229 FR filled in the same set of questionnaires online. There were 17 females and 24 males, with an average age of 37.5 years (SD=11.7 years).

**Results:** The number of traumas experienced at work did not significantly correlate with any of the mental health outcomes. There were many intercorrelations between the mental health disorders studied apart from nicotine and alcohol dependency. In the longitudinal study, only burnout, anxiety, and PTSD had reduced over time.

**Discussion:** The number of traumatic events in the workplace is not correlated with any the mental health outcomes. This result could be explained by the permanent state of arousal in FRs, waiting for the next emergency, or because FRs are prepared to encounter traumatic events which become "predictable". Mental health scores are almost all higher than in the general population, and it is essential to provide suitable resilience training and to encourage peer support.

## The Mediating Role of Intolerance of Uncertainty and Maladaptive Perfectionism in the Relationship between Frustration of Basic Psychological Needs and Difficulties in Emotional Regulation

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**Introduction:** The relevant literature explicitly states that the three innate and universal psychological needs of each person (autonomy, competence, and relatedness), if obstructed, may cause unfavourable effects on individuals. Intolerance of uncertainty and maladaptive perfectionism are also known to have a negative influence in individuals' lives. Emotional regulation, on the other hand, is a key trait to possess to cope with problems in life. Based on these, the present study aimed to examine intolerance of uncertainty, maladaptive perfectionism, and difficulties in emotional regulation, which are implicated in the emergence of many psychopathologies and are called transdiagnostic variables, from the point of view of the Basic Psychological Needs Theory.

**Method:** This study assessed the mediating role of intolerance of uncertainty and maladaptive perfectionism in the relationship between basic psychological need frustration and difficulties in emotional regulation. There were a total of 1015 participants in the study. The data was collected online.

**Results:** The frustration of basic psychological needs directly predicts intolerance of uncertainty, maladaptive perfectionism, and difficulties in emotional regulation. As a result of the mediation analysis performed, it was found that the frustration of basic psychological needs significantly and positively predicts difficulty in emotional regulation through the mediating mechanisms of intolerance of uncertainty ( $\beta = .18$ ,  $SE = .02$ ,  $p < .001$ ) and maladaptive perfectionism ( $\beta = .13$ ,  $SE = .02$ ,  $p < .001$ ). It can be said that there is a partial mediating effect between frustration of basic psychological needs and difficulties in emotional regulation, as the former directly and indirectly predicted the latter through intolerance of uncertainty and maladaptive perfectionism.

**Discussion:** Frustration of basic psychological needs may leave individuals vulnerable to intolerance of uncertainty in their future lives. By its nature, intolerance of uncertainty leads to perceiving even unlikely events as unacceptable (Dugas et al., 2001). Life is uncomfortable for individuals with intolerance of uncertainty, given the number of uncertainties in life (Buhr and Dugas, 2002). Hence, the presence of uncertainty and the inability to figure out how to deal with it as well as the frustration of basic psychological needs further complicate the situation, putting those with frustration of basic psychological needs into a complicated and chaotic vicious circle due to their perception of intolerance of uncertainty. On the other hand, individuals exposed to frustration of their basic psychological needs create perfectionist standards as a way of proving themselves, which, when not met, leads them to experience difficulties in emotional regulation (Byrne et al., 2016). These findings are in line with the relevant literature.

**Conclusion:** Evaluation of the direct and indirect effects revealed in the path analysis model together shows that people with frustration of basic psychological needs are far from being flexible due to the nature of perfectionism and intolerance of uncertainty (Shafran et al., 2002). Therefore, individuals with a high level of frustration of basic psychological needs, intolerance of uncertainty, and maladaptive perfectionism experience difficulties in emotional regulation. In their formulation of effective intervention principles, clinicians need to take these factors into consideration.

## The Mediating Role of Schema Domains in the Relationship between Young Parenting Styles and Anxiety in Clinical and Non-Clinical Turkish Adults

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Numerous studies in the literature have emphasized the relationship between parenting styles, early maladaptive schemas, and anxiety. However, research examining the mediating role of schema domains in the relationship between Young parenting styles and anxiety is limited. This study aimed to investigate the mediation role of schema domains in the relationship between domains of Young parenting style and anxiety. Two separate samples consisting of 616 clinical and 600 non-clinical Turkish participants aged between 18-65 years were brought together for the study. The data were collected using the Young Parenting Inventory, Young Schema Questionnaire Short Form-3 and Beck Anxiety Inventory. During the preparation phase of the current study, high-level confirmatory factor analysis revealed that the Young Parenting Inventory consisted of two upper dimensions, namely obsessive(controlling) parenting and irresponsible parenting, and the Young Schema Questionnaire consisted of three upper dimensions, namely overvigilance, impaired autonomy, and detachment. As the result of the structural equation model analysis, it was determined that the overvigilance schema domain fully mediated the relationship between parenting style areas and anxiety in both clinical and non-clinical groups. The findings indicated that schema domains mediated the relationship between parenting style domains and schema domains, the relationship between schema domains and anxiety, and the relationship between schema domains. The results further suggest that unmet early childhood needs in the parent-child relationship lead to anxiety and mediate its development, as evidenced by the schema domains.

**Keywords:** schema therapy, Young parenting style, early maladaptive schemas, schema domains, anxiety, parenting

## Body Dissatisfaction in Children's Daily Life: Can Parents Protect Against Appearance Comparison on Social Media?

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Research suggests that body dissatisfaction is common among children. However, it remains largely unknown how body dissatisfaction occurs on a daily basis and which environmental factors are linked to this occurrence. The purpose of this study was to examine (1) state body dissatisfaction, dietary restraint, compensatory exercise and binge eating among children and its association with upward comparisons via social media and (2) whether trust towards parents may attenuate this association. Children from 10 to 12 years old (N=51) were assessed three times a day via a smartphone during a two week period. Trust was examined via a baseline questionnaire. State body dissatisfaction, dietary restraint, compensatory exercise, binge eating and upward comparisons were examined via Ecological Momentary Assessment (EMA). Multilevel analyses indicated that an increase in upward comparisons is associated with a concurrent increase in state body dissatisfaction, compensatory exercise and binge eating. Trust towards father/mother significantly moderated the association between appearance comparison and body dissatisfaction. Future research is necessary to enhance our understanding of daily fluctuations of body dissatisfaction among children and to gain insight into environmental factors that may protect children from the adverse effects of social media.



## Examining the Whole Plate: The Role of The Family Context in The Explanation of Children's Food Refusal Behaviors

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**Introduction:** In the context of explaining children's food refusal behaviors (FRB) such as food fussiness and food neophobia, research has predominantly focused on the role of parental feeding strategies. However, little is known about which general family context variables add to the explanation of children's FRB. The purpose of this study was to examine the relation between children's FRB and (1) parent's own use of maladaptive emotion regulation strategies when they are anxious, (2) parent's reactions towards their children's emotions in stressful situations, and (3) parenting styles. **Methods:** Mothers and fathers (N = 157) of young children (M = 4.64, SD = 1.7) completed a series of online self- and parent-report questionnaires. **Results:** The model examining the role of parenting styles was found to be significant in explaining FRB in children. More specifically, the current findings demonstrate that higher levels of a coercive parenting style were associated with higher levels of both food fussiness and food neophobia in children. Furthermore, higher levels of a chaotic parenting style were associated with higher levels of food neophobia in children. The models examining parents' maladaptive emotion regulation strategies when anxious and parents' reactions towards their children's emotions during stressful situations were not found to be significant. **Conclusions:** Factors related to the parenting style appear to be important for explaining FRB in children. Replication of the findings using longitudinal and observational designs is needed.

## The Need for Culturally Adapted CBT in a World of Diversity

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Cognitive-behavioral therapy (CBT) is the first line of treatment indicated for a wide range of mental health disorders.

It is important to note that this approach reflects Western values. At the same time, it is also necessary to consider the fact that the culture of every person shapes the perception of health, beliefs about the causes of difficulties and the access to the treatment thereof.

Bearing in mind the tendencies of globalization and internationalization, as well as the diversity of target populations and communities, there is a clear need for cultural adaptations of psychological treatments. Not to mention that most psychological treatments, CBT included, have been developed and evaluated in Western countries.

Additionally, ethnic minorities were very often less represented in randomized controlled trials on treatment effectiveness, and this reduces generalizability of findings even further. Furthermore, culture significantly affects the type of symptoms and risk factors associated with certain mental disorders so the diagnostic processes as well as outcome measures need to be adapted and evaluated to reflect these tendencies and this is still rarely the case.

For these reasons, cultural adaptation of psychological treatments is recommended. Despite this, empirical analyses on the effectiveness of such treatments are still scarce.

The aim of this systematic review was to synthesize evidence on the effectiveness of culturally adapted cognitive-behavioral therapy in comparison to standard form in an outpatient context as well as to evaluate the quality of these studies. The study was conducted in accordance with PRISMA-P guidelines and had included randomized controlled trials published in English. We have included studies that examined the effectiveness of culturally adapted and standard forms of CBT, regardless of the implementation modality or the type of difficulty.

To identify relevant studies, the electronic bibliographic databases psychINFO and PubMed, primary study registers, Cochrane Library CENTRAL and Gov.Trial database, and selected grey literature sources [www.opengrey.eu](http://www.opengrey.eu) and DART were screened. Web of Science was also included in the screening process. The methodological quality of the studies included was assessed using an algorithm and the guidelines specified in RoB 2.0. Two thirds of the studies were generally assessed at a low risk of bias.

Included studies focused on a variety of difficulties and disorders including substance use disorders, mood disorders and anxiety disorders. Despite a limited number of studies that met the inclusion criteria and methodological challenges, the findings of this study support the effectiveness of culturally adapted CBT treatment in comparison with the standard one.

**Moreover, it is important to highlight few clinical implications of these Findings:** incorporating person's view and explanatory model of the difficulties is of utmost importance; it is necessary to consider various contextual factors such as the existing support systems in the community; caution is required when using diagnostic instruments and measures to monitor treatment outcomes that include norms in which minority groups are underrepresented.

Both body of research and clinical practice highlight the need for culturally sensitive interventions to offer effective care in this changing world.

## The Effect Of An In-Service Training Programme Adopted From mhGAP on Mental Health Literacy of General Practitioners

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**Introduction:** The Ministry of Health (MoH) launched an in-service training programme (Mental Health Services Strengthening Program-MHSSP) to equip primary health care staff with the skills to identify mental health problems, manage common mental disorders, provide basic care and refer to specialized health services or other services (ie. social care) where necessary. MHSSP was adopted from mhGAP programme which was developed by World Health Organization. The program mainly aims improving basic clinical skills including recognizing possible risk factors and existing symptoms of common mental health problems, identifying appropriate pharmacological and non-pharmacological interventions, providing treatment and referral when necessary. We tested the hypothesis that the level of mental health literacy is different in general practitioners' who received and did not receive MHSSP training.

**Method:** The analyzes were completed with the data of 689 people in total. Sociodemographic data form and Mental Health Literacy Scale (MHLS) were given to participants. MHLS is developed by Jung et al and has three sub-dimensions: resource-oriented, knowledge-oriented, and beliefs-oriented mental health literacy. Goktas et al conducted reliability and validity study for Turkish population.

**Results:** 689 general practitioners were analyzed. 274(39.85%) participants received MHSSP training and 415(60.2%) did not receive in service mental health training. Of 274 MHSSP trainees, 83.95 found the training useful for their clinical practice while 6.20% reported it as unuseful. 9.85% of trainees were neutral. The level of knowledge on mental health problems related with mental health questionnaire was significantly higher in doctors received MHSSP training (t:4.19 df:672 p<0.01). Total mental health literacy scores of trained doctors were statistically higher than the non-trained doctors (t:5.05 df:656 p= 0.00). All subscale scores of mental health literacy questionnaires were statistically higher in trained doctors with the highest difference in resource-oriented mental health literacy and lowest difference in beliefs oriented mental health literacy.

**Discussion:** Mental health services in primary care have a unique role in terms of accessibility and cost. The importance of training primary health care workers for improving mental health literacy in developing countries is known in literature. Education of primary care workers increases literacy and improves service quality. MoH has been transforming mental health services and as part of integrating mental health services into primary care services component, started to upskill primary health care providers in mental health. Adequate mental health literacy of primary care staff may increase quality of primary mental health care services. The aim of the trainings delivered within this context is to ensure a better physician practice which comes with increased mental health literacy.

**Conclusion:** Mental health literacy should be considered as an important concept both in society and health professionals for the acceptability of mental health services. In this sense, we think that any activity to strengthen mental health literacy will have a positive impact on health services.

## Internet-Based Weight Control Intervention in Bi'kilo Mobile App: A Qualitative Analysis of Usability, Acceptability and User Experiences

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**Introduction:** Digital/Online Mental Health Interventions provide advantages such as anonymity/avoidance of stigma, ease of use and accessibility (Chan et al. 2016). mHealth is broadly accessible so while reduce language, time and place barriers, at the same time provide low-cost resources to overcome health inequalities (Schueller et al. 2019).

Because of mHealth apps are still having significant dropout rates despite their effectiveness, there is a need to identify factors which influence engagement with and adherence to health-promoting technology.

We aimed to examine a qualitative analysis of the usability, acceptability and user experiences of a internet-based weight control intervention.

**Methods:** "Bi'Kilo" mobile application developed for weight control and weight loss, based on cognitive behavioral techniques. The project was funded by TÜBİTAK (The Scientific and Technological Research Council of Turkey) (ARDEB 1001)- Research Support Programs Directorate with number 122S049. This study, which aims to explore the experiences of "Bi'Kilo" mobile application users and evaluate their opinions in the context of acceptability and usability of the intervention, is structured in a qualitative research methodology. Phenomenology design, one of the qualitative research designs, was used in the study. The selection criteria include the following parameters: being literate, having above average technological literacy. Eight people who participated in the "Bi'Kilo" mobile application pilot study were invited to study. Semi-structured interviews were conducted with the participants. The research data were analyzed using content analysis.

**Results:** 8 participants were included in the study. 4 participants are mental health workers and 4 participants are people who want to lose weight. The education level of the participants was postgraduate and graduate. All participants were women. The mean age of the participants was 26,0.

The codes obtained from the interviews with the participants were combined under the themes of Content, Useful Features, Technical Problems, User Experience, Improvement and Suggestions.

Participants appreciated the use of written and visual materials together. It was stated that the questions received after the information were useful reinforcements. They mentioned that especially the emotional eating and mindful eating modules are different and useful than other apps. Notifications and stepped transitions were found to be useful to make it easier to maintain motivation. At the follow-up phase (without new content), motivation to remained dropped. Participants stated that they prefer data entry to be in a simple interface and comparable. Personalized notifications would make it easier to stay motivated. Expert feedback would be useful. It was important that mobile apps were more accessible and cheaper than face-to-face interventions. Personalized tasks could be useful. Participants said that diversity can promote maintenance.

**Conclusions:** We aimed to reveal new views that will increase the usability and acceptability of applications. Study participants were positive about the usefulness of the “Bi’Kilo” mobile application to strengthen care on weight loss. These technologies have the potential to improve equity of access to appropriate weight loss management. Strengthening the weight management process of people with mobile applications can facilitate this process.

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## Cognitive Behavioral Therapy-Based Mobile Application Usage on Grazing Behavior in Overweight Individuals

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**Introduction:** Overweight and obesity are critical contemporary issues due to their health risks, including chronic conditions, and the societal challenges they present, such as reduced productivity and increased healthcare costs. Regularly consuming high-calorie and unhealthy snacks can contribute to weight gain and obesity. Grazing behavior, which means eating small amounts of food frequently and uncontrollably, is one of the behaviors that can lead to weight gain (Conceição et al., 2017; Heriseanu et al., 2019). The aim of this research is to examine the effect of Cognitive Behavioral Therapy-based Mobile Application Usage on Grazing Behavior in Overweight Individuals. Previous web-based and mobile-based studies have shown that self-help and weight loss applications of this kind have a positive impact on self-regulation capacity, reducing the consumption of harmful substances and disinhibition (Martin et al., 2015; Womble et al., 2004). In this study, it is expected that the Bi’kilo mHealth application will reduce grazing behavior in individuals.

**Methods:** The Bi’kilo mobile application is a 10-week program consisting of six modules and a four-week monitoring period. The purpose of these modules, prepared based on CBT, is to provide participants with information about nutrition and healthy living and to equip them with new skills. Participants applied to this program online, with a total of 22 individuals, comprising 7 women and 4 men in the experimental group, and 11 women in the control group. These two groups followed the content prepared for them. The Repetitive Eating Questionary was used to measure participants’ grazing behaviors (Gomez et al., 2023). Participants completed this scale at the beginning and end of the program, and their weight measurements were taken at the program’s outset and conclusion. The obtained data were analyzed using repeated measures ANOVA.

**Result:** The control group has gained a total of 29.4 kilograms, while the total weight of the intervention group has decreased by 12.5 kilograms. While the Rep(eat)-Q score of the control group has decreased by 91 points, the experimental group has seen a decrease of 180 points. However, the results did not yield statistical significance ( $p=0.07$ )

**Discussion:** According to the study results, we observe that the Bi’Kilo mobile application has positive effects on reducing grazing behavior and promoting weight loss. However, we are unable to statistically support this difference as significant. The difference in initial weights between the experimental group ( $M=92.45$ ) and control group ( $M=75.5$ ) might have contributed to this. Moreover, the small number of participants could also be a contributing factor to this result.

**Conclusion:** Although the Bi’Kilo mHealth application did not show statistically significant results in this study, it is evident that the Bi’Kilo mHealth application has been beneficial for weight loss and grazing behavior. Larger sample sizes may lead to more conclusive results in future studies.

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## Augmented Reality Exposure Therapy for the Treatment of Dog Phobia: A Pilot Feasibility Study

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**Introduction:** Traditional exposure therapies to treat specific phobias can have some challenges since it is not always feasible to create the phobic situation in or bring the phobic object to the therapy room. Moreover, the idea of confronting the phobic object or situation can create a great amount of distress, and clients may either not start to treatment process at all or drop out easily. To overcome these practical challenges, augmented reality exposure therapies (ARET) has begun to be used. The current study aims to treat dog phobia with ARET and then evaluate the feasibility of this method.

**Method:** 183 individuals applied for the study and 40 individuals found eligible in the first screening phase (had a score indicating moderate or severe phobia severity from Specific Phobia Scale and were 18 years or older) were informed further. 22 individuals who could attend the study had clinical interviews, and 18 individuals meeting the diagnostic criteria for specific phobia were invited to participate the study. Participants were randomly allocated to intervention (n=10) and control group (n=8). All participants received three assessments: Baseline (right before the intervention), post-assessment (one week after the intervention) and follow-up assessment (one month after the intervention). In all assessments, participants completed a self-report Specific Phobia Scale, consecutively a behavioral approach test in which subjective units of distress (SUDs) were used. Participants in the intervention group received one session (max. 2 hours) ARET with Microsoft Hololens-I. After all assessments, the participants of control group were offered the intervention, and 4 participants from the intervention group were interviewed for process evaluation.

**Results:** At the end of the follow-up assessments, compared to control group, participants of intervention group could approach the dog closer (not statistically significant) with much lower SUDs ( $p < .05$ ). All participants who received the intervention had no dog phobia anymore, could approach the dog completely and pet it in the post- and follow-up assessments, and they reported only slight level of distress. The average duration of the single session was less than an hour and found to be much shorter compared to the traditional single-session exposure therapies which take around three hours. Furthermore, in the process evaluation interviews, participants reported that they are in closer contact with dogs, and a few could generalize the skills they gained in this study to the other animals such as cats they used to be phobic of. Participants mentioned several parts that they found useful in the intervention: That the software includes various breeds of dogs looking realistic, and that the intervention uses a collaboratively built fear hierarchy and not a real dog. They indicated using a goggle with a wider-angle vision, troubleshooting the connection issues, and having a more ergonomic goggle might improve the intervention.

**Discussion:** The results provide preliminary support for effectiveness of ARET for dog phobia. Further studies with larger samples and more advanced goggles are suggested.

**Conclusion:** ARET can be promising to treat dog phobia in a short time and is found feasible by the participants.

## The Relationship of Early Maladaptive Schemas and Emotion Regulation with Body Image Coping Strategies

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**Introduction:** The aim of this study was to the relationship between early maladaptive schemas, emotion regulation difficulties and body image coping strategies in adults was examined. The hypothesis that body image was significantly predicted by early maladaptive schemas and emotion regulation scores was tested.

**Method:** In this study, Demographic Information Form, Young Schema Scale Short Form-3 (YSQ-SF), The Body Image Coping Strategies Inventory-BICSI, and Difficulties in Emotion Regulation Scale (DERS) were used to measure the variables of the study. Data were collected from a middle-to-high income community sample of 454 adult Turkish participants using convenience methods and snowball sampling. The sample consisted of 113(24,9) males and 341 (75,1) females between the ages of 22 and 45 ( $M = 30,61 \pm 6,65$ ). The obtained data were analyzed by IBM Statistics SPSS (v.26). The results were analyzed by Pearson Correlation Method and Multiple Linear Regression Analysis.

**Results:** There is a statistically significant and positive relationship between body image coping strategies and, emotion regulation difficulties; a statistically significant and positive relationship between emotion regulation difficulties and the early maladaptive schemas domains (Impaired Autonomy, Disconnection, Unrelenting Standards, Impaired Limits, Other-Directedness); a statistically significant and positive relationship was found between body image coping strategies and the early maladaptive schemas domains. A multiple linear regression analysis was conducted to investigate the predictive relationship between several independent variables associated with early maladaptive schemas and the dependent variable, BICSI (Body Image Coping Strategies). The results revealed that the model demonstrated a moderate fit, explaining approximately 15% of the variance in BICSI scores. Among the predictors, "Unrelenting Standards" and "Other-Directedness" emerged as statistically significant predictors of BICSI scores. This suggests that individuals with higher levels of these early maladaptive schema domains were more likely to employ body image coping strategies.

**Discussion and Conclusion:** This study aimed to examine the relationship between early maladaptive schemas, emotion regulation difficulties, and body image coping strategies. The findings indicate a significant and positive relationship between emotion regulation difficulties and body image coping strategies. Furthermore, specific early maladaptive schema domains (Impaired Autonomy and Other-Directedness) were identified as significant predictors of body image coping strategies. Since similar variables have not been studied together before, these findings emphasize the importance of body image coping strategies and contribute to the literature in terms of treatment and preventive interventions.

**Keywords:** Body image, body image coping strategies, emotion regulation, early maladaptive schemas, schema.

## Identifying Common Psychological Processes Between Orthorexia Nervosa and Eating Disorders: A Processual Transdiagnostic Approach

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**Introduction:** Orthorexia nervosa (OrNe) is a strong preoccupation with healthy diet with negative emotional, cognitive, and/or social consequences while trying to approach this goal and when the eating behavior deviates from it. Barrada and Roncero (2018) proposed to consider orthorexia as a bidimensional construct composed not only by a pathological dimension (OrNe), but also by a healthy dimension ("Healthy orthorexia", HeOr, i.e., interest in and tendency to eat healthily). Research has shown that OrNe is positively associated with indicators of psychopathology, while HeOr was not associated or inversely associated with these indicators. Overlaps between OrNe and eating disorders (EDs) have been observed in the literature. Moreover, studies suggest that OrNe can be an antecedent or comorbid with an ED; similarly, OrNe can occur and/or intensify after treatment of EDs. Based on a transdiagnostic processual approach, it is likely that biological, social, and circumstantial factors, as well as psychopathological processes, are common and transdiagnostic elements across EDs and OrNe. This approach, illustrated by the mediating psychological processes model (Kinderman and Tai, 2007), stipulates that the influence of biological, social, and circumstantial factors on psychopathological disorders is not direct but mediated by transdiagnostic psychological processes. The aim of the current study is to investigate the role of the following psychological processes that could be common across OrNe and EDs: mental ruminations, intolerance of uncertainty, and perfectionism, using a bidimensional orthorexia scale. The contributive role as distal causes in OrNe of the following factors will also be investigated: biological factors (body mass index, gender, age, educational level), social factors (appearance-related pressure from family, media, peers, and significant others), and circumstantial factors (history of dieting, physical activity, history of traumatic experiences).

**Method:** A sample of 511 participants (81.8% women) aged between 18 and 72 years ( $M = 37.2$ ,  $SD = 14.6$ ) responded to self-reported questionnaires: the Teruel Orthorexia Scale, the Eating Disorders Examination-Questionnaire, the Sociocultural Attitudes Towards Appearance Questionnaire, the Ruminative Response Scale for Eating Disorders, the Intolerance of Uncertainty Scale, the Multidimensional Perfectionism Scale, the Godin Shephard Leisure Time Physical Activity Questionnaire, as well as a socio-demographic questionnaire.

**Results:** Results are currently being analyzed using exploratory structural equation modeling. Based on the literature on eating disorders, we expect that all factors and psychological processes correlate with OrNe (the latter to a larger degree) and that the association of distal factors to be mediated by psychological processes.

**Discussion:** Results of this study will contribute to the identification and the understanding of risk factors associated with OrNe. Additionally, it is expected that the results will clarify similarities which could exist between OrNe and EDs, as well as contributing to the development of specific interventions for screening and prevention purposes.

**Conclusion:** The results of this study could provide new clinical perspectives for the treatment of OrNe and EDs. This could contribute to creating clinical interventions based on common processes, rather on disorder, aiming towards a flexibility improvement of these processes. This type of approach may also help prevent relapses of these disorders.

## Childhood Trauma, Intolerance of Uncertainty, Functional Impairment and Worry in Patients with Generalized Anxiety Disorder

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**Introduction:** Individuals with childhood traumas are more prone to develop anxiety disorders than those without. Intolerance of uncertainty (IU) is one of the main factors that elicit to experience stressful feelings and excessive worry in GAD (Behar et., 2009). Functional impairment is a persistent problem in anxiety disorders (Iancu et al., 2014). We aimed to compare patients with GAD and healthy controls in terms of childhood traumas, worry, IU, and functional impairment. Secondly, we investigated the associations between the aforementioned factors in patients with GAD.

**Method:** Hamilton Anxiety Scale(HAM-A), Hamilton Depression Scale- 17 item version(HAD-17), Penn State Worry Questionnaire (PSWQ), Intolerance of Uncertainty Scale (IUS), Childhood Trauma Questionnaire-28 (CTQ-28), Sheehan Disability Scale (SDS) were administered to participants. Mann Whitney U test or Student's t-test was performed depending on the normality of distribution. Between groups, analysis of the categorical variables was performed with the chi-square test or Fisher's exact test. Pearson or Spearman correlation coefficients were calculated to evaluate relationships between variables. Multivariable linear regression analysis was performed to determine independently associated variables with the SDS-total and SDS subdomain scores. Statistically significant variables according to correlation coefficients were included in the regression model.

**Results:** Fifty-six patients with GAD and 56 healthy controls matching due to age, gender, and years of education were enrolled. HAM-A ( $p<0.001$ ), HAM-D ( $p<0.001$ ), PSWQ ( $p<0.001$ ), IUS-total ( $p<0.001$ ), CTQ-total ( $p=0.019$ ), CTQ-emotional neglect ( $p=0.036$ ), SDS-total ( $p<0.001$ ), SDS-work/school ( $p<0.001$ ), SDS-social life ( $p<0.001$ ) and SDS-family life ( $p<0.001$ ) scores were significantly higher in the patient group than the control group. PSWQ scores were significantly correlated with IUS-total scores ( $r=0.435$ ,  $p=0.001$ ) and CTQ-emotional abuse scores ( $r=0.320$ ,  $p=0.016$ ). CTQ-total scores were significantly correlated with scores of IUS-factor 3(disturbing thoughts about the uncertainty of the future) ( $r=0.273$ ,  $p=0.042$ ). SDS-total scores were significantly correlated with scores of PSWQ ( $r=0.334$ ,  $p=0.012$ ), IUS total scores ( $r=0.278$ ,  $p=0.038$ ), IUS-Factor 1(uncertainty is stressful and upsetting) ( $r=0.282$ ,  $p=0.035$ ), IUS-Factor 2 (negative self-assessment about uncertainty) ( $r=0.301$ ,  $p=0.024$ ). In the multivariable linear regression analysis, any variables significantly correlated with SDS-total scores did not predict SDS-total scores. PSWQ scores significantly predicted SDS-social life scores (standardized  $\beta=0.357$ ,  $p=0.010$ ) and IUS-total scores significantly predicted SDS-family life scores (standardized  $\beta=0.294$ ,  $p=0.028$ ).

**Discussion:** Levels of IU, worry, depression, anxiety, global functional impairment, and subdomains of functional impairment were higher in the patient group. Global functional impairment levels of the patients were significantly correlated with worry and IU. Worry predicted social life functioning and IU predicted family life functioning. However, regression analysis did not reveal any significant predictor regarding global functioning. Emotional abuse levels of the patients were associated with worry, and global childhood trauma levels were associated with disturbing thoughts about the uncertainty of the future.

**Conclusion:** In the follow-up of patients with GAD, intolerance of uncertainty may be considered to assess family life functioning and worry may be considered to assess social life functioning. Additionally, in the assessment of IU, childhood adverse events may deserve attention.

## Alexithymia and Depression as Risk Factors for Cerebral Small Vessel Disease: Towards the Development of Psychotherapeutic Prophylaxis

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**Introduction:** Both alexithymia and depression are known to be associated with cardiovascular mortality, hypertension, and atherosclerosis. We hypothesized that these factors might also contribute to cerebral small vessel disease (SVD)—age-related progressive vascular brain damage that represents a major cause of cognitive impairment in elderly people. Since both alexithymia and depression can be managed psychotherapeutically, evaluating their role in SVD may pave the way for psychotherapeutic prophylaxis of age-related cognitive decline.

**Method:** We enrolled 193 adults, aged  $56\pm 8$  years, with no history of cardiovascular events. Participants underwent brain MRI to determine the presence or absence of SVD, were assessed for hypertension both anamnestically and with the use of 24-hour blood pressure monitoring and filled out the Toronto Alexithymia Scale (TAS-20) and Beck Depression Inventory (BDI). First, structural equation modelling (SEM) was used to explore the role of age, TAS-20, and BDI (observed exogenous variables) in hypertension and SVD (observed endogenous variables; presence or absence). Next, we performed an item analysis for TAS-20 and BDI to explore the aspects of alexithymia and depressive attitudes that contribute to the latent variable. The identified items were classified with the use of hierarchical clustering, and the relationship between the resulting clusters was modelled with SEM.

**Results:** The data on the relationship of age, TAS-20, and BDI with SVD and hypertension were best explained by a model with a latent variable mediating the relationship between observed exogenous and endogenous variables (perfect fit with chi-square=0.93, CFI=1.0, TLI=1.0, SRMSA=.015). We identified 9 items from TAS-20 and 6 items from BDI that correlated with the latent variable. Hierarchical clustering of these items revealed four clusters that were interpreted and named as follows: "limited emotional and interoceptive insight", "negative self-thoughts", "low energy", "difficulties communicating emotion". The SEM performed for these four phenomena allowed us to construct a model with limited insight and negative self-thoughts as co-dependent causes, and low energy and difficulties communicating emotion as independent consequences. This model perfectly explained the data (chi-square=0.0, CFI=1.0, TLI=1.0, SRMSA<.001).

**Discussion:** Our results indicate the presence of a common dysfunction underlying the psychosomatic mechanisms of hypertension and SVD. This dysfunction is related to specific interrelated aspects of alexithymia and depressive attitudes: limited emotional and interoceptive insight, negative self-thoughts, low energy, and difficulties communicating emotion.

**Conclusion:** Our study is the first to demonstrate that emotional factors serve as risk factors for cerebral SVD. We proposed a model that could serve as the basis for developing cognitive-behavioural interventions for prophylaxis of age-related cognitive decline.

## Does Similar Experience Facilitate Empathic Accuracy?

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**Introduction:** Being able to infer what another person is thinking or feeling, is a precondition for successful social interactions. Moreover, it is a crucial ability in psychotherapy, because it helps the psychotherapist to keep in close touch with the patient. This ability has been labelled affective perspective taking, cognitive empathy, or empathic accuracy.

Studies have shown that people can infer other people's thoughts and feelings to a certain extent and that the degree of accuracy is moderated by characteristics of the target, characteristics of the judge, the relationship between target and judge, and the available information (verbal information, nonverbal information, or both). However, little is known about the effect of similar experience on empathic accuracy. Does it help, for example, to have a migration experience to better understand how a migrant might feel in a particular situation?

The goal of our study was to investigate whether empathic accuracy improves when judges made the same experiences as the target persons.

**Method:** A total of 89 students were randomly allocated to two groups. Participants in the "same-experience group" went first through different experimental conditions that induced negative affective states (Trier Social Stress Test, recalling a dangerous event, and watching movie scenes). Then participants watched videos of two target persons who went through the same experimental conditions. After each video, participants inferred how the target was feeling during the particular situation. For participants in the non-experience group, the order was reversed. They first saw the videos of the targets and judged the targets' affective states before they went through the experimental conditions themselves.

As a measure of empathic accuracy, we computed the similarity (profile-correlation across items) between each target's self-reported affective state and the corresponding participants' ratings of the targets' affective state after each situation.

**Results:** A three factorial mixed ANOVA revealed that empathic accuracy was slightly higher for participants who had the same experience before they judged the targets' states than for participants who had the same experience after they judged the targets' states. However, differences between targets, the kind of experimental condition, and the interaction between targets and experimental condition produced larger effects

**Discussion:** Results suggest that similar experience facilitates empathic accuracy. However the effect was rather small. Readability of the target and the kind of experimental condition had larger effects on empathic accuracy. We experimentally manipulated similar experience vs. no similar experience using somehow artificial laboratory paradigms to induce momentary stress and negative feelings in targets and participants. This limits the generalization of our findings.

**Conclusion:** Having made a similar experience helps to be more accurate in inferring another person's affective state. However, the effect seems to be small and probably limited to rather brief stressful experiences.

## Effects of Cognitive-Behavioral Therapy on Episodic Memory and Metacognitive Judgments in Individuals with Obsessive-Compulsive Disorders: A Pre-Post and Follow-Up Study

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**Introduction:** Obsessive-compulsive disorder (OCD) is characterized by various symptoms, such as checking and repetitive thoughts. Researchers have claimed that these symptoms occur because people with OCD have memory impairments and cannot remember whether or not they accomplished a task correctly. However, others suggest these symptoms may occur due to a lack of confidence regarding their memory rather than memory impairment<sup>1</sup>. Recent studies suggest that flawed metacognitive beliefs unique to OCD are at the root of cognitive problems in OCD<sup>2</sup>. Cognitive behavioral therapy (CBT) is one of the most effective behavioral interventions for OCD treatments. Current approaches to CBT effectiveness mainly focus on metacognitive beliefs and behavioral strategies associated with these beliefs; yet, CBT's effectiveness on cognitive functioning in OCD has not been studied sufficiently. Thus, we investigated the effects of CBT (before, after, and after 6-month follow-up) on memory and metacognitive judgments in patients with OCD and compared them to healthy individuals.

**Method:** Ninety-six participants consisting of 46 patients diagnosed with OCD according to DSM-5 criteria and 50 healthy controls (HCs) who were matched for age and education level participated in the study. We used three different episodic memory tasks, consisting of symptom-free stimuli (word, scene, and face), and we measured their metacognitive judgments (feeling-of-knowing: FOK and judgment-of-learning: JOL). Each task consisted of consecutive phases: learning, JOL judgment, JOL recognition, FOK, and FOK recognition. The OCD group underwent 10 CBT sessions<sup>3</sup> by a clinical psychologist at Ankara City Hospital, and their clinical symptoms and cognitive performances were assessed in three time periods, namely before CBT, after CBT, and after a 6-month follow-up.

**Results:** The OCD groups' symptom severity was measured Yale-Brown Obsessive-Compulsive Scale significantly decreased after CBT and remained below the clinical level at the follow-up time (M<sub>before</sub> = 27.54; M<sub>after</sub> = 8.71; M<sub>follow-up</sub> = 9.04). Before CBT, except for FOK judgment, the OCD group showed lower performance than the controls ( $p \leq .042$ ). However, after CBT, the OCD group showed improvement on all cognitive measures, and group differences on all cognitive measures were insignificant ( $p \geq .109$ ). Lastly, for the follow-up study, the differences within the OCD group (pre-post) and also between the OCD and controls were insignificant ( $p \geq .221$ ).

**Discussion:** Our results indicated that CBT is effective on both impairments of episodic memory and metacognitive process in OCD, and this improvement remains effective after a 6-month follow-up. Metacognitive processes play an essential role in OCD. We found that individuals with OCD have more difficulties in retrospective metacognitive judgment than prospective ones. Our finding provided important clues that this distinction can be taken into account in CBT applications.

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## Ancient Method from Aristotle: Integrating Classical Logic into Psychoeducation and Challenging Thoughts

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Classical logic is a philosophical discipline that studies the rules of correct thinking. It is the science that deals with the method that checks the validity of inferences and the consistency of sets of propositions or the rules that determine validity and inconsistency. From this point of view, it examines not the accuracy of information but the correctness of the internal integrity of thoughts and concepts that utter the accuracy of information. The purpose of this discipline is to protect thought from falling into error. Thanks to logic, right and wrong thinking styles are distinguished. Since classical logic is the study of thinking in terms of rules, it has a formal feature, and the Greek thinker Aristotle, who wrote six books on this subject, is the most important representative of classical logic.

In this study, concepts such as postulatam, syllogism, simple apprehension, judgment, particular, and universal, which are considered within the framework of classical logic, will be explained. Furthermore, it will be focused on how these concepts can be used as a psychoeducational tool. The propositional forms of the thoughts discussed in the cognitive formulation will be emphasized and the effect of these propositions in certain situations will be tried to be clarified. Thus, automatic thoughts will be able to be transformed into examinable "sentence" forms. Secondly, the formed phrases within the framework of these concepts will be discussed within the classical logic rules. The inferences will be discussed in the context of logic errors. Therefore, it will be tried to look at automatic thoughts with a method that is completely based on the objective forms.

## Predictors of Clinical Insight in First-Episode Psychosis: Different Patterns in Male and Female Patients

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**Background:** Poor insight in one's own condition is a major problem in psychosis, being detrimental for treatment compliance and recovery. Previous studies have suggested a crucial role of metacognitive and social cognitive dysfunction, which points to the potential use of developing therapies specifically addressing these deficits with the aim of improving insight in affected individuals.

**Aims:** The current study aimed to determine clinical, metacognitive, and socio-cognitive predictors of insight in first-episode psychosis, specifically in men and women.

**Methods:** Regression analyses of different insight dimensions were conducted in 116 male and 56 female patients with first-episode psychosis. Measures of clinical symptoms, metacognition and social cognition were entered as predictors.

**Results:** Delusions emerged as a strong predictor of all insight dimensions in both sex groups. In men, certain negative symptoms, a jumping to conclusion bias, and impaired theory of mind were additional predictors of poor insight. In women, the main predictors of insight impairment were attention disorders, emotional recognition impairment and a self-serving bias.

**Conclusion:** Metacognition is strongly involved in insight impairment in these patients, with marked differences between men and women with respect to the specific metacognitive and social cognitive abilities involved. These findings suggest new avenues for more targeted metacognitive and social cognitive interventions to improve insight in men and women with psychosis.



## Investigation of the Relationship between Automatic Thoughts and Thought Errors and Core Beliefs and Metacognitions in Depression Patients

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**Introduction and Aim:** Depression is characterized by symptoms such as depressed mood, lack of interest or pleasure, fatigue, guilt, pessimism, thoughts of worthlessness, sleep and appetite disorders and sexual reluctance. Among the psychological theories, cognitive theory comes to the fore in its etiology. However literature studies on metacognitive theory, which is a relatively new approach increasing. The most important difference of metacognitive theory from cognitive theory is that the source of psychopathology is not in the person's thought content, but in the form of thought. The aim of this study is to examine the relationship between metacognitions and cognitions and depressive symptoms in depression.

**Method:** 100 patients who applied to the Dışkapı Yıldırım Beyazıt Training and Research Hospital Psychiatry Clinic and were diagnosed with Depression according to the Structured Clinical Interview for DSM-5 (SCID-5-CV) diagnostic criteria were included in the study. Depression Specific Sociodemographic Data Form, Beck Depression Inventory (BDI), Metacognition Scale 30 (MCS-30), Automatic Thoughts Scale (ATS), Thought Characteristics Scale (TCS), and Social Comparison Scale (SCS) were applied to the research participants.

**Results:** Automatic thoughts alone explain the severity of depressive symptoms to a large extent. Core beliefs explain less than automatic thoughts. Thought characteristics are the least influential. In the mediation models between core beliefs, automatic thoughts and thought characteristics, results supporting the classical cognitive theory were obtained. At the same time, it has been determined that metacognitions are effective on depressive symptoms through certain automatic thoughts and thought features.

**Discussion and Conclusion:** Core beliefs explain the level of depressive symptoms at a high level. It has been determined that certain automatic thoughts and thought characteristics have a role in the effect of metacognitions on the level of depression. This situation makes us think that the use of the two theories not separately from each other, but integrating them may be correct.

## The Effect of Cognitive Behavioral Therapy-Based Mobile Application Use on Physical Activity Levels in Overweight Individuals

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**Introduction:** Obesity and overweight are global public health challenges associated with various physiological and psychological issues, diminishing overall quality of life. Reduced physical activity contributes to obesity, which, in turn, increases health risks and mortality rates. These conditions not only impact individual well-being, but also impose significant societal and economic burdens. This study evaluates the impact of a CBT-based mobile application, "Bi'kilo" designed for individuals with a BMI of 25 or higher, on their physical activity levels (PAL). While the effectiveness of mobile app-based CBT methods has been demonstrated in recent studies, there is a scarcity of CBT-based mobile apps targeting obesity. The "Bi'kilo" app aims to enhance motivation by enabling users to monitor their physical activities, set goals, and receive feedback.

**Methods:** In this 10-week randomized controlled trial, participants used the CBT-based 'Bi'kilo' mobile app to implement self-directed physical activity plans. Physical activity levels (PAL) were measured before and after app use. Routine blood tests and anthropometric measurements were conducted. The International Physical Activity Questionnaire (IPAQ) was administered. Preliminary results were based on 22 individuals who completed the initial phase and were randomly divided into two groups: experimental and control, each with 11 participants. Changes in PAL were evaluated at both the 1st and 10th weeks using the IPAQ. Data was reported in terms of percentages, means, and standard deviations, and comparisons between data points were performed through repeated measures ANOVA.

**Result:** In this investigation, we evaluated the impact of the CBT-based 'Bi'kilo' mobile application on exercise behaviors. The experimental group collectively achieved a weight loss of 12.5 kilograms, in contrast to the control group, which exhibited an weight gain of 24.9 kilograms. The experimental group demonstrated a noteworthy increase of 722 points in their IPAQ scores following their engagement with the Bi'kilo mobile application. Conversely, the control group experienced a decrease of 77 points in their PAL Scores.

**Discussion:** According to the study findings, it is evident that the Bi'Kilo mobile application exhibits potential in reducing PAL and facilitating weight loss. Nevertheless, due to the relatively minor magnitude of weight loss, statistical significance may not have been achieved. This could be attributed to the initial variances in participants' physical activity levels, with the experimental group commencing the study with an average PAL of 802, while the control group had a baseline PAL of 1373. Additionally, the small sample size may limit the generalizability and statistical power of our findings.

**Conclusion:** While the Bi'Kilo mHealth application did not yield statistically significant results in this study, it is evident that it has been beneficial for weight loss and PAL. These findings have the potential to offer design recommendations for future mobile health applications targeting healthy weight loss among individuals with weight issues.

Project Name: "Development and Efficacy Testing of a Cognitive-Behavioral Therapy-Based Weight Control Mobile Application 'Bi'kilo'.

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## **Generalization of Exposure Therapy Effects to Untreated Stimuli**

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Exposure is considered as the most effective intervention to attenuate exaggerated fear. The extent to which exposure treatment effects can generalize to fears not targeted during treatment remains elusive. In a series of recent studies, we demonstrated that a generalization of therapeutic effects during exposure is possible across stimuli which belong to the same category yet differ perceptually from each other. Subjects with fear of spiders and cockroaches who underwent an exposure for one phobic stimulus (spiders), whereas the other phobic stimulus (cockroaches) was left untreated, exhibited attenuated fear to both spiders and cockroaches. We further showed that exposure treatment generalization can be observed for untreated stimuli which do not share any perceptual resemblance with treated stimuli and belong to a different fear category. Findings from our studies indicate that exposure might entail beneficial effects which go beyond the observed reductions in fear and avoidance related to the treatment stimuli. Future research aimed to identify the decisive factors underlying exposure treatment generalization might help to expand the generalization effect permanently to any given type of fear.

## **Examining the Relationship between Flexibility in Retrieving Autobiographical Memories and Social Problem Solving in Depression**

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Previous research has established that dysphoric individuals have difficulty in flexibly retrieving specific autobiographical memories (Dritschel et al., 2013). Specific autobiographical memories refer to memories for highly contextualized events that last less than one day (e.g., going out to dinner for my niece's birthday). Flexible retrieval refers to the ability to retrieve a specific autobiographical immediately after retrieving a more general autobiographical memory that represents a summary of events (e.g., going to play tennis on Friday afternoons). The ability to retrieve specific memories flexibly is deemed to be important for a range of functions including problem-solving and emotion regulation. However the relationship between social problem-solving ability and flexibility in retrieving autobiographical memories as well as general cognitive flexibility has not been tested. A further question is how this relationship varies as a function of depression. The current study investigated these questions. It was predicted that reduced flexibility in retrieving autobiographical memories would be associated with poorer social problem-solving. We also predicted that this effect would be more pronounced in our depressed versus non-depressed sample. Twenty depressed and 20 non-depressed took part in the study. Cognitive flexibility on the Brixton spatial appreciation task and flexibility in retrieving autobiographical memories were assessed together with several indices of problem-solving performance. The Social Problem Solving Inventory Revised (SPSRI) was used to assess attitudes to problem solving and other process outcomes. The Means Ends Problem Solving task (MEPS) assessed the ability to solve hypothetical social problems. Further individual difference measures of rumination and emotional regulation were also measured. A significant difference was found between the non-clinical and clinically depressed groups on the autobiographical memory flexibility measures and social problem solving measures. Memory flexibility was associated with some aspects of social problem-solving. The implications of the findings for the complex relationship between memory retrieval and social problem solving in depression are discussed.

## The Mediator Role of Schema Modes in the Relationship Between Parentification and Co-Dependency

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**Introduction:** The disruption of the hierarchy between the parent and the child obscures the role of the child in the family. Parentification is characterized by the child taking emotional and/or instrumental responsibilities and caring for parents and siblings. Therefore, lead to significant difficulties in the child's development of a self, and these difficulties may be reflected in the child's romantic relationships in adulthood in the form of difficulties in thinking independently. This situation is conceptualized as co-dependency and is defined as excessive focus on others, assuming full responsibility, and low self-esteem. It is hoped that discovering the roles of schema modes, which are defined as emotional and behavioral states that emerge suddenly when people are hypersensitive, in these relationship styles will be a significant guide, especially in therapy sessions. Therefore, the main purpose of this study is to determine which schema modes mediate the relationship between parentification and co-dependence.

**Method:** The research was conducted with 355 participants aged 18-69 years. The Sociodemographic Form, Parentification Inventory, Co-Dependency Assessment Scale, and Schema Mode Scale-Short Form were used in the study. Process Macro analysis Model 4 developed by Hayes (2013) was used to test the mediating role of schema modes between parentification and co-dependency.

**Results:** According to the results of the analysis, the level of co-dependency is higher in women. Eight different mediator effect models were tested, including child modes, coping modes, parent modes, and healthy adult mode, between parent-focused parentification and sibling-focused parentification and co-dependency. The mediating role of the angry child mode, self-aggrandiser mode, and demanding parent mode was found between parent-focused parentification and co-dependency. In addition, the mediating role of the punitive and demanding parent mode was found between sibling-focused parentification and co-dependency.

**Discussion:** It is noteworthy that the same mediating effect between both parent-focused and sibling-focused parentification and co-dependency is the demanding parent mode. The demanding parent mode, which prioritizes the needs of others, predicts co-dependency and shows the mode that should be studied first in treatment. The attention is drawn to the mediating variable between the punitive parenting mode, characterized by self-blaming aspects in individuals who assumed the responsibility of caring for their sibling during childhood, and perfectionism, which is co-dependency. Similarly, it is observed that the self-aggrandiser mode compensates for the emotional deprivation caused by parentification. These modes, which develop in root family interaction, mediate similar imbalances in adult roles. The prominence of the angry child and self-aggrandiser mode suggests that these individuals can be evaluated especially in terms of narcissism in studies and/or therapy sessions that examine the relationship between parentification and co-dependency.

**Conclusion:** The schema modes come from the experiences of their root families and continue actively in the adulthood romantic relationships of individuals who take responsibilities that are not suitable for their developmental level in their childhood. It is thought that this study will enable individuals who experience parentification to define their unhealthy roles and explore their relational problems and will provide a new perspective on the predictor of childhood experiences on adulthood.

## A longitudinal Examination of the Relationship between Intolerance of Uncertainty and Ontological Well-Being in Adolescence\*

Normalization of Postdiction and Frontal Alpha-Rhythm Asymmetry During Cognitive-Behavioral Therapy in Schizophrenia

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**Introduction:** Patients with schizophrenia exhibit enhanced confidence in events that never occurred and overestimate their internal predictions (postdiction), which correlates with impaired reality testing and psychotic symptoms. In addition, cognitive rigidity is characterized by failure in shifting prefrontal lateralization during reasoning and problem-solving (left greater than right). This study aimed to investigate how these cognitive and electrophysiological markers change during cognitive-behavioral therapy (CBT).

**Methods:** We enrolled 25 patients with schizophrenia stabilized on antipsychotic medications. All participants received CBT for 12 weeks, explicitly focusing on delusions and negative symptoms. We tested overestimated internal predictions using a visual postdiction task during which participants predicted which of four white squares flashed on the computer screen would turn red. Postdiction was measured by overestimating the likelihood of correct decisions on color changes above chance. Frontal resting-state asymmetry was measured with NEUVO - CURRY 8X-system with a 256-channel Quik-Cap Neo Net (Compumedics, NeuroScan). The clinical symptoms were assessed with the Positive and Negative Syndrome Scale (PANSS) by a rater blind to the study's aims.

**Results:** There was a significant reduction of positive, negative, and general symptoms of schizophrenia during the treatment, as indicated by PANSS differential scores ( $p < 0.05$ ). In addition, the patients with schizophrenia exhibited significantly decreased postdiction ( $p < 0.01$ ). We also observed a shift to left frontal activation relative to the right ( $p < 0.01$ ). Decreased postdiction correlated with the reduction of positive symptoms ( $r = 0.52$ ). However, changes in frontal asymmetry were unrelated to the clinical improvements and normalized postdiction.

**Discussion and Conclusions:** These results indicate that successful CBT in schizophrenia focusing on delusions and negative symptoms is associated with changes in neurocognitive and electrophysiological markers indicating overconfidence in internal predictions and cognitive rigidity. By the end of the treatment, the patients display enhanced reality testing and better cognitive flexibility, as indicated by ameliorated postdiction and left-shifted frontal activation.

## Enhancing Positive Cognition Using Gratitude Practices in The Treatment of Depressive Symptoms: A Randomized Controlled Trial

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**Introduction:** Depression is a mental health disorder with a high prevalence worldwide (WHO, 2022). Individuals with depressive symptoms often experience overt difficulties in processing positive data which leads them to develop an impaired perception of reality, making it important to consistently establish positive memory networks and to use interventions that actively promote positive cognition (Beck, 2019, p. 26; Watkins, 2013, p. 178). Gratitude is a psychological construct that has positive relationship with many mental health indicators and gratitude intervention programs are known to reduce depressive symptoms (Bohlmeijer et al., 2020; Cregg & Cheavens, 2021). The aim of the current study was to analyze the effect of the Gratitude Based Intervention Program (GBIP), developed by the researchers, on the depressive symptoms and gratitude levels of adults aged 18-40 with depressive symptoms.

**Method:** A total of 290 people from various regions of Turkey applied to partake in this study. Of the 132 participants who met the inclusion criteria, 66 participants were randomly assigned to the experimental and control groups respectively. A 4-week GBIP (online intervention program containing exercises to enhance positive cognitions and behavioral activation) was applied in the experimental group and no intervention was applied to the control group. Participants' level of depressive symptoms were measured with the Beck Depression Inventory (BDI), and gratitude levels were measured with the Gratitude Scale (GS) at three time points; before the intervention (pre-test), at the end of the intervention (post-test) and 4 weeks after the end of the intervention (follow-up test).

**Results:** The findings showed that GBIP significantly reduced depressive symptoms and significantly increased gratitude in the experimental group. In addition, these improvements were maintained at the 4 week follow-up. The depressive symptoms and gratitude levels of the control group did not differ significantly at any measurement point.

**Discussion-Conclusion:** As hypothesized, the Gratitude-Based Intervention Program was found to be effective in reducing depressive symptoms and increasing levels of gratitude in adults with depressive symptoms, in comparison to the control group. These improvements were maintained 4 weeks post-intervention. This study contributes to the literature in terms of methods that can be used in the treatment of depression. Another contribution of the study is demonstrating the effectiveness of online applications in achieving positive results in depressive individuals. Considering the challenges faced by depressive individuals in seeking support and maintaining participation due to social withdrawal, the potential applications of this new gratitude based intervention program are promising.

## T-RAC: Exergame-Augmented Dynamic Imagery Intervention to Rehabilitate Motor Cognition as an Add-on to CBT and Behavioral Activation Treatment

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**Technical /Scientific Background:** Deficiencies in action simulations are suggested to act as mechanisms involved in emotional disorders. Individuals with deficiencies in action simulations often benefit less from imagery interventions. To boost imagery interventions, we developed a rehabilitation-based procedure to increase action and affective simulations. We focus on two potential solutions based on embodied processes for improving imagery: (1) exergames and (2) dynamic imagery. Remote kinematics in the form of exergaming (XboxKinect™ games) results in the augmentation of motor (kinesthetic) imagery, increased motor rehabilitation in stroke patients, motor learning and work as a stand-alone intervention for the reduction of depressive symptomatology. Dynamic imagery or imagery doubled by mimicry of simulated movements increases the vividness of mental imagery, it is superior to static imagery regarding motor learning, and that deficits in imagery which are evidenced by static motor imagery are not evident when a dynamic strategy of motor imagery is adopted.

Key features of the technology presented

### The procedure involves several components:

- (1) Conceptualisation. The therapists explain the deficits in action simulation related to the patient condition and describes the augmentation of action simulations by exergame, actfulness, action memory, and dynamic imagery.
- (2) Remote kinematic exposure in which clients are exposed to remote kinematic experience to increase motor recruitment to imagery. We describe the protocol for doing the Kinect exposure.
- (3) Actfulness is a 5-minute exercise in which clients focus on movement sensation and synchronise hand gesture with breathing to increase the action simulation-outcome association. An audiotape will be presented.
- (4) Action memory rescripting. We describe the procedure used in the protocol.
- (5) Dynamic imagery-is a dynamic imagery procedure we use to support the recruitment of motor and affective experience during imagery. We describe how we use the supported simulation method to boost action imagery.

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## Safety Behaviours Among Early and Middle Adolescents With Social Anxiety Disorder (SAD). Developmental Presentation and Response to Treatment

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**Introduction:** Safety behaviours (SBs) are key maintaining symptoms of Social Anxiety Disorder (SAD). Population study suggests there may be age-related differences in the types of safety behaviours used by adolescents in social situations. However, data is scarce on whether such differences are present among adolescents with SAD. Theoretically, more advanced, active SBs aimed at impression management might be more prevalent among older adolescents. As social, cognitive, and affective development during adolescence is rapid and social interactions are of high emotional relevance, it seems indicated to study possible differences in SBs between early and middle adolescents with SAD. It is also important to examine how adolescents' SBs respond to clinical treatment. Results from such studies may aid in further development of SAD interventions for this developmental period, coinciding with peak of SAD onset.

**Aim:** The first aim of this study was to examine possible age-related differences in the use and presentation of SBs between early and middle adolescents with SAD. Second, the effect of developmentally oriented cognitive therapy (DOCT-SAD) to the decrease in the use of SBs was studied.

**Method:** A group of 41 adolescents, aged 13-17 years were identified from school health and welfare services as a part of research trial. A semi-structured interview was administered to adolescents and their parents to detect a range of clinical disorders. All DSM-5 anxiety disorders were assessed with ADIS-5 anxiety disorder module. All participants had primary SAD. Participants completed SAFE, a 32-item self-report measure assessing frequency of engaging in SBs of three types, represented by subscales restricting behaviours (RB), active/impression management behaviours (AB), and managing physical symptoms of anxiety (MPS). Questionnaire data were analyzed using independent samples t-tests and explorative item analyses between age groups. A pilot subgroup (n=10) was treated with DOCT-SAD. Treatment response analyses utilized Wilcoxon signed ranks test.

**Results:** Mean age (SD) of adolescents was 15.0 (1.1) years. Of them, 24 (58.5%) were aged 13-14 (early adolescents) and 17 (41.5%) aged 15-17 (middle adolescents). Mean (SD) SAFE score was 66.0 (21.1) in the whole sample; no differences between middle and early adolescents (68.3 vs. 64.4 points, n.s.) were found. Compared to early adolescents, middle adolescents reported a trend towards using more MPS-type SBs, showed by higher mean MPS subscale total score (p=0.08), and higher mean MPS subscale score adjusted and corrected relative to SAFE total score (p=0.06). Unexpectedly, early adolescents showed a trend for higher use of active SBs, demonstrated by higher AB subscale mean score adjusted and corrected relative to SAFE total score (p=0.06). Marked gender differences were noted across different SBs. Item analysis suggested that some SBs requiring active interactions with peers (both AB and MPS type) and rationalization of own anxiety by devaluing others were more prevalent among middle adolescents. Mean pre- to post-treatment reduction in SAFE total score was -31.4 points (Z=-2.80; p=.005, d = 1.614) after DOCT-SAD.

**Discussion:** More research is needed on developmental presentation of SBs in adolescents with SAD. SBs in this age group seem responsive to clinical, targeted treatment.

## The Predictive Value of Cognitive Biases for Acrophobic Avoidance Behavior

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**Introduction:** Acrophobia is a specific phobia characterized by fear and avoidance of heights. Exposure therapy is regarded as the gold-standard treatment. However, not all patients benefit from it or relapse, particularly in the long term. Therefore, a deeper understanding of the underlying mechanisms is needed to improve the efficacy of exposure therapy. Here, recent conceptualizations put forward that cognitive change may be a driving mechanism, i.e., exposure should be operationalized such that the patients' dysfunctional cognitions are maximally violated. Interpretational processing biases may reflect such cognitions, and they play an important role in the etiology and maintenance of anxiety disorders such as acrophobia. Specifically, it is assumed that they are (causally) related to e.g., fear and anxiety-relevant avoidance behaviors. Hence, understanding the relationship between cognitive, emotional, and behavioral processes may be an important prerequisite to operationalize exposure-based treatments more effectively, and advancing our understanding of this interplay is the main aim of this presentation.

**Method:** This talk will present a subset of the data we are currently collecting in the context of a randomized clinical trial (RCT, ClinicalTrials.gov ID: NCT05780203). The RCT includes patients diagnosed with an acrophobia and investigates the potentially beneficial effects of computerized interpretation training on exposure. For the purpose of this talk, we will include the following baseline data: The Encoding Recognition Task (ERT) and Heights Interpretation Questionnaire-German (HIQ-G) to assess interpretational processing biases, data of a Behavioral Approach Test (BAT) to assess avoidance behaviors, and the Acrophobia Questionnaire (AQ) to assess height-related anxiety and avoidance.

**Results:** The RCT is currently on-going, and it is planned that the data collection will be completed in September 2023 (Ntarget = 80). We will investigate the relationship between interpretational processing biases, levels of acrophobia, and behavioral avoidance tendencies via correlational analyses, using outcomes of the baseline ERT, HIQ-G, BAT, and AQ. Further, regression analyses will be conducted to specify and nuance the predictive validity of the assessed interpretational and anxiety-related concepts, with a specific focus on predicting acrophobic avoidance tendencies assessed during the BAT.

**Discussion:** This open paper will summarize the main findings and will embed them into the broader literature on cognitive-emotional-behavioral mechanisms in acrophobia. In addition, we will give an outlook of the transfer of these findings regarding the operationalization and fine tuning in the context of exposure-based treatments in acrophobic samples.

**Conclusion:** This study aims to deepen our understanding of the cognitive-emotional-behavioral mechanisms underlying acrophobic behavior and its treatment. By investigating interpretational processing biases and their relationship with anxiety-related concepts, the findings have the potential to enhance the efficacy of exposure-based treatments for acrophobia and may also be relevant for other anxiety- and fear-related disorders.

## Mindfulness Integrated Cognitive-Behavioral Group Therapy in Cases of Illness Anxiety Disorder (IAD) and Somatic Symptom Disorder (SSD)

Selçuk Aslan

**Introduction:** Illness Anxiety Disorder (IAD), and Somatic Symptom Disorder (SSD) both conditions are challenging cases in psychiatry.

Illness Anxiety Disorder, formerly known as Hypochondriasis, is a mental health disorder characterized by excessive worry and fear about having a serious medical condition, despite having little or no medical evidence to support the belief. Individuals with IAD often misinterpret minor bodily sensations or normal bodily functions as signs of a severe illness. This preoccupation with health concerns can lead to distress, frequent doctor visits, and a significant impairment in daily functioning.

Somatic Symptom Disorder is another mental health condition characterized by a heightened focus on physical symptoms and distress related to these symptoms. Individuals with SSD may experience a range of physical complaints and symptoms, which can be either mild or severe. Unlike IAD, the concern in SSD is not necessarily about having a specific illness but rather the distress and preoccupation with bodily sensations or functions. This preoccupation can significantly interfere with a person's daily life and can be associated with excessive doctor visits, medical tests, and treatments, even when there is no clear medical explanation for the symptoms.

This study presents our experiences with cognitive-behavioral group therapy in cases of Illness Anxiety Disorder (IAD) and Somatic Symptom Disorder (SSD). The study was conducted online at the Psychiatry Clinic of Gazi University and aims to provide insights into the planning and implementation of a CBT program integrated with Mindfulness and Acceptance practices.

**Method:** Online CBT group therapy sessions were conducted via the Meet program, with each session lasting 90 minutes and conducted weekly over a period of 10 weeks. The participation of the main therapist and accompanying assistant therapists was ensured. Following a preliminary assessment conducted by an assistant therapist, patients who met the criteria and agreed to participate were included. Two consecutive groups, totaling 12 patients, were planned, and therapy sessions were completed with seven patients in two separate consecutive groups. Participants were assessed using the Beck Anxiety and Depression Inventories, Health Anxiety Scale, Somatic Symptoms Scale, Symptom Interpretation Scale, and SF-36 at weeks 1, 5, and 10.

**Session Structure:** Sessions 1-2 focused on introducing the cognitive model and formulating IAD and SSD. These sessions explored the sympathetic system, emotions, and the relationship between symptoms. Mood assessments and evaluations of recent week symptoms were conducted at the beginning of each session. Homework assignments relevant to the session's topics were given, and the first 15 minutes were dedicated to setting the agenda for the session.

Subsequent sessions included the following content:

Understanding thoughts and their functions

Recognizing emotions and behaviors

Psychoeducation

Thought defusion exercises (observing thoughts from a distance)

Examining the differences between the observing self, automatic thinking mind, and being in the moment

Acceptance and letting go exercises

Mindfulness practices (e.g., 20-minute body scan, 3-minute breathing space, and attention deploying exercises using objects, colors and sounds)

Explaining cognitive structure (Core and Intermediate Beliefs, Automatic Thoughts)

Cognitive restructuring

Identifying and understanding the function of symptoms

Exploration of values

Exposure to symptoms and illness scenarios

Use of metaphors to understand strategies and their results

After each group session, the therapy team evaluated and determined the content for the following week based on participants' progress and needs.

**Termination Phase:** The final two sessions were dedicated to termination and developing strategies for addressing recurring problems. A review of learned skills was conducted, and participants created a toolbox for potential future challenges.

**Results:** The study included participants with an average age of  $32.71 \pm 6.13$  (Min 29, Max 41), consisting of 5 females and 2 males. While changes in values related to depression, illness anxiety, physical symptoms, and the interpretation of these symptoms were observed, it is not appropriate to draw conclusions due to the small number of participants. The p-value could not be determined.

**Discussion:** Our preliminary results suggest potential benefits in integrating Mindfulness and Acceptance practices into CBT for patients with SSD and IAD. However, the main limitation of our study is the small number of participants. Nevertheless, our study is ongoing, and the results presented here are preliminary and serve as an interim report.

**Table 1. Comparison of changes in participants from baseline to cbt group termination.**

	First Week	Fifth Week	Tenth Week
BAI	27,29±11,90	13,71±9,71	11,29±6,26
BDI	15,14±11,13	8,43±7,07	6,29±4,07
SF36	437,50±148,86	491,27±142,56	494,77±125,86
-Physical Functioning	76,43±25,12	87,14±23,43	88,57±23,93
-Role Limitations Due to Physical Problems	50,00±47,87	39,29±42,96	36,43±46,07
-Role Limitations Due to Emotional Problems	38,07±40,48	42,84±46,00	42,84±46,00
-Vitality	41,43±26,88	54,29±13,36	51,43±19,09
-Mental Health	56,57±22,20	69,86±16,74	73,71±15,98
-Social Functioning	51,79±24,40	67,14±22,47	63,57±14,71
-Bodily Pain	79,64±15,24	80,00±14,07	83,21±13,28
-General Health Perceptions	43,57±16,26	50,71±21,68	55,00±20,82
Somatic Symptom Scale	11,71±5,12	10,71±3,73	8,86±3,48
Health Anxiety Inventory	28,43±10,78	24,71±9,67	20,57±8,58
Symptom Interpretation Questionnaire	116,57±16,52	113,86±13,42	117,57±16,96
-Normalizing	38,86±3,48	37,86±6,84	40,43±8,18
-Psychological	39,57±7,57	38,43±6,95	39,43±9,65
-Somatic	38,14±8,38	37,57 ±8,52	37,71±8,52

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**Investigating the Effectiveness of Acceptance and Commitment Therapy to Increase Psychological Flexibility in Parents of Children with Attention Deficit Hyperactivity Disorder**

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**Introduction:** Intervention programs targeting parents of children with Attention Deficit Hyperactivity Disorder (ADHD) primarily focus on behavior-based psychoeducation for managing child behaviors (Coates et al., 2015). Limited interventions are available for parents of ADHD-diagnosed children in Turkey. Acceptance and Commitment Therapy (ACT)-based interventions for ADHD parents are also limited, with no studies found in Turkey. The aim of this study was to develop an ACT-based intervention to examine its effect on parenting stress and psychological flexibility in parents of children with ADHD.

**Methods:** This study employed a randomized controlled semi-experimental design with pre-test, post-test, and one-month follow-up measurements. We assessed parental psychological flexibility, parenting stress, self-compassion, depression anxiety stress, and life satisfaction. Participants were selected homogeneously through simple random sampling based on inclusion and exclusion criteria, resulting in a total of 34 parents, with 16 assigned to the experimental group. The intervention program comprised six 90-minute sessions over two days for the ACT group. Following the completion of follow-up measurements for the experimental group, the control group attended a one-day ACT workshop.

**Results:** The results have demonstrated significant differences in favor of the experimental group, as evidenced by the post-test and follow-up measurements. The experimental group had significantly reduced parenting stress and increased sub-dimension of parental psychological flexibility, committed action, as shown in the post-test. Furthermore, in the follow-up measurements, there were increased parental psychological flexibility and life satisfaction, along with reductions in parenting stress and total scores on the depression anxiety stress scale. Although no significant difference was observed between the two groups, a significant increase in self-compassion levels was found in the experimental group in the post-test compared to pre-test. However, no significant differences were observed in depression symptoms.

**Discussion:** The findings of this study highlight the positive effects of the ACT intervention on the well-being of parents of children with ADHD. These results emphasize the potential of ACT interventions to enhance the well-being of parents dealing with the challenges of raising children with ADHD. Additionally, consistent with prior research indicating that changes associated with ACT treatments tend to become more pronounced months after following the intervention's completion (Gould et al., 2018). Further research is needed to explore the specific factors influencing the impact of ACT on depression symptoms and to evaluate the long-term effects of the intervention.

**Keywords:** ADHD, parenting, psychological flexibility, acceptance and commitment therapy,h

## The Diminished Social Motivation: How Overgeneralized Autobiographical Memory Mediates the Relationship Between Depression, Rumination, Negative Core Beliefs and Social Anhedonia

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Social anhedonia (SA), the loss of interest in or pleasure from social interactions, is one of the cardinal symptoms of Major Depressive Disorder (MDD) and is traditionally measured through self-reports. Due to negative memory biases in MDD, retrospective self-measurements indicating high SA levels might not accurately represent the momentary social experience of the individuals. Experimental studies have provided evidence that individuals with MDD report lower levels of social motivation, yet they may still enjoy social interactions to the same degree as healthy individuals. The present study posits that individuals report lower levels of social motivation, as the perceived rewarding value of social interactions in autobiographical memory (AM) becomes distorted through overgeneralization with increasing levels of depression, negative rumination, and core beliefs. To investigate these relationships, 180 adults diagnosed with mild to severe MDD and 177 healthy controls were recruited to complete the Beck Depression Inventory, Revised Social Anhedonia Scale, Reactions to Positive Emotions Scale, Memory Content Evaluation Form, and Short Autobiographical Memory Scale. Results showed that SA levels were negatively associated with the precision of AM, positive ruminations, and positive beliefs about self, others, and the future while positively associated with depression and reduction in positive emotion levels. Also, a regression analysis showed that levels of depression, reduction in positive emotions, overgeneralized AM, and beliefs about others are significant predictors of SA. To supplement the correlational findings of this cross-sectional phase, an invitation will be extended to all participants to participate in a 13-day Ecological Momentary Assessment (EMA) study that will compare the real-time and retrospective social motivation and pleasure levels of the participants during and after various social interactions. The study sample will consist of 40 outpatients diagnosed with mild to severe MDD and 40 healthy controls who will complete short questionnaires sent to their smartphones five times a day for 13 days to indicate their activities and how much they want and enjoy their social interactions at that moment. Additionally, at the end of each day, and on the seventh and final day of the study, participants will re-evaluate their past social pleasure experiences and provide a rating of their anticipatory motivation levels for future similar interactions. The study anticipates that MDD participants will exhibit significantly reduced momentary and anticipatory social motivation levels, but their momentary social pleasure levels will not significantly differ from healthy participants. Furthermore, the retrospective social pleasure ratings of the MDD group will be significantly lower than their own momentary ratings, and the propensity to form overgeneralized memories, the reduction of positive emotions, and the presence of a negative cognitive triad will predict the extent of this discrepancy. Besides the findings of the survey study, the feasibility of the EMA study, including the acceptance rate and the characteristics of participants who consent to participate, will also be reported along with an assessment of the motivation for receiving a personalized feedback report in order to support future studies.

## Enhancing Parenting and Child Behavior: A First RCT With the Emotion-Focused «Tuning in to Kids» Parenting Program in Switzerland

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Emotion-focused parenting interventions have only rarely been evaluated systematically in Europe. Tuning in to Kids (TIK) is an evidence-based parenting program that uses emotion socialisation theory with evidence first established in Australia. Theoretical influences include Emotion-focused Therapy, Mindfulness, Neuropsychology, Attachment Theory and Meta-Emotion Theory and Acceptance Commitment Therapy.

Parents attend six weekly group meetings for 2,5hours. Methods include psycho education, role-play, counseling and video demonstration, relaxation techniques. Research from several countries and different cultures (Australia, Norway, Iran, China, USA, Turkey, Germany) the effectiveness in enhancing parenting and child behavior outcomes. TIK has proved effective in primary prevention and as a cost-effective intervention for e. g., anxiety, ADHD, trauma, and disruptive behavior.

This study investigates the effectiveness of the online delivery of TIK during the covid-19 pandemic in a randomized controlled trial in Switzerland

Parents (N = 141) with children between three and six years of age were included in the study and randomly assigned to an intervention (attended groups in 2021) and wait-list control group (attended groups in 2022). Parents' beliefs about emotions, their reported reactions to the child's negative emotions, family emotional climate and child behavior (internalizing and externalizing) improved after the intervention and stayed better until the six months follow-up in the intervention group, but not in wait-list controls. Adherence to the program in both groups was very high.

This study shows that parent emotion socialization practice is changeable with effects even on child behavior and even after online delivery. This makes Tuning in to Kids a promising emotion-focused parenting intervention also in central Europe.



## Do Adolescents Really Recover From Anorexia? A Systematic Review

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**Background:** Anorexia Nervosa (AN) is an eating disorder that causes physical, behavioural and psychological deteriorations. Although diagnostic criteria are clearly defined, there has been no consensus on what recovery is. The primary aim of this project was to review prior studies indicating recovery criteria, as well as recovery rates of patients with adolescent-onset AN.

**Method:** Related studies were searched through three databases MEDLINE (Ovid), PsycINFO (Ovid), and CINAHL (EBSCOhost) from the beginning of November to the 28th of June 2022. A total of 15 English studies with patients who had adolescent-onset and DSM-V/ICD-11 diagnoses from 2013 to 2022 were included. A systematic review was conducted by following the PRISMA expanded checklist and the qualities of eligible articles were evaluated via the Quality Criteria Checklist (QCC).

**Results:** Of the 15 studies, two studies mentioned only the physical dimension of recovery, whereas the rest of the 13 studies covered behavioural and psychological dimensions of it. The measurement tools of assessment related to ED- pathology, course and/or outcome have changed between eligible studies and EDE-Q was found as the most frequently used. The follow-up years of the patients fluctuated from one to 30 years, and the recovery rate varied from 30.6% to 72%.

**Discussion:** In the current circumstances, there are some difficulties faced in defining recovered patients. Since no consensus was achieved, every researcher set their own recovery criteria. Until the policymakers of the field standardize the definition of recovery from AN, researchers that are interested in recovered patients or the outcomes of AN should be aware of the fact that inconsistencies in definition can affect the results of their research.

## Critical Factors for Academic and Familial Development of Eritrean Refugee Children in Switzerland - A qualitative Study

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People from Eritrea are currently the largest group of asylum seekers in Switzerland, about 30000 already live in Switzerland; many of them have small children under six years of age. In the next few years thousands of children will start school. In the canton of Zurich, 450 Eritrean children are expected to start kindergarten each year. The specific social, cultural, and familial background, sometimes in combination with traumatizing experiences during the journey to Switzerland might be challenging for teachers school psychologists.

The aim of this study was to find predictors and determinants of academic success and adjustment. Official data was analyzed, complemented by an ethnographic approach to learn about familial mechanisms that could influence the family's and children's wellbeing and academic success. Five families of Eritrean origin were interviewed and asked about their family situation, their live before they came to Switzerland and to their living in Switzerland. Eritrean children are underprivileged in the Swiss academic system compared to Swiss students and even to children from other trouble spot countries. Almost all children had difficulties at school in the first months / years.

Proactivity and future orientation of the mothers seem to help Eritrean children to interact with their life situation and strengthen the whole family whereas absent fathers, isolated mothers and discontinuity in the family history weaken the families and their well-being.

## Clinicians and Service Users' Views of Psychological Intervention Doses for Psychosis and Paranoia: A Qualitative Study

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**Introduction:** Psychosis, and the associated paranoid thinking, is one of the most debilitating forms of mental illness that leaves a person at their most vulnerable. Therefore, it is of critical importance that people who experience psychosis receive appropriate treatment to promote recovery and quality of life. In the UK, treatment guidelines for psychosis recommend "at least 16 sessions" of CBT and "at least 10 sessions" of family intervention (NICE, 2014). These guidelines highlight a lack of certainty regarding the optimal dose that should be offered. Also they are solely based on studies that used quantitative methods and did not consider the views of key stakeholders. In this study we will investigate clinicians and service users' views of optimal intervention doses of psychological interventions for psychosis and paranoia, including face-to-face and digital. Dose can be defined in a number of ways including the number, length, and frequency of sessions. The main objectives are: (1) to explore different stakeholder groups' understanding and perspectives on therapy dose, and (2) to seek consensus on the minimum, maximum and optimum number of sessions for psychological therapy in this sample.

**Method:** Focus groups were held with clinicians with experience of delivering a psychological therapy for psychosis or paranoia, and adult service users with experience of receiving a psychological therapy for psychosis or paranoia. Participants were recruited through existing clinical contacts within national psychosis services. The focus groups were conducted online via Microsoft Teams. The topic guide invited a discussion on the most helpful dose of face-to-face vs digital psychological therapies for psychosis and paranoia. Prior to attending the focus group, participants completed an online survey to gather demographic data and details of their experience of psychological interventions.

**Results:** Four focus groups with clinicians (n= 5, 4, 4, 2) and five focus groups with service users (n= 2, 3, 2, 3, 4) were conducted during May and July 2023. Sample characteristics will be summarised and tabulated. Other qualitative data from the online survey will be analysed using qualitative content analysis. Qualitative focus group data will be analysed using the Framework Method. The results of these analyses, currently underway, will be presented in the form of themes that address the main aims of the study, together with any emergent themes.

**Discussion:** We will discuss the emergent similarities and differences between clinicians and users views on doses of psychological therapy. We will give a sense of the breadth of opinion sampled and how this might be similar to, or different from, existing dose guidelines which are based exclusively on efficacy studies. We will consider how qualitative work could feed into future guidelines on dose recommendations. Finally, we will discuss to what extent it was possible to achieve our aim to reach a consensus on the minimum, maximum and optimum number of therapy sessions.

**Conclusion:** Insights from clinician and user views of psychological therapy doses will be useful to inform clinical practice, contribute to future revisions of guidelines and understand users' preferences and experience of receiving psychological interventions.

## Associations between Psychological Tendencies in Intimate Relationships and Positive Schemas

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**Introduction:** The present study aims to understand the associations between early adaptive schemas and psychological tendencies in intimate relationships. According to schema theory, patterns carried from one's family of origin and childhood experiences influence relationships in adulthood. Recently, there has been a focus on and interest in early adaptive schemas resulting from the fulfillment of core emotional needs. It is believed that a study focusing on positive schemas and relationships would contribute to the literature.

**Method:** Through the convenience sampling method via social media, a total of 389 participants were reached, consisting of 326 females and 63 males. 80% (316) of the participants did not have any psychiatric diagnoses. Among the participants, 63.5% were in an ongoing romantic relationship, while 36.5% had previous romantic relationship experience but were not currently in a relationship. The Demographic Information Form, Young Positive Schema Scale, and Multidimensional Relationship Scale were used as data collection instruments in the study. The Young Positive Schema Scale consists of 14 sub-dimensions: emotional fulfillment, success, empathic consideration, basic health and safety/optimism, emotional openness and spontaneity, self-compassion, healthy boundaries, and developed self, social belonging, healthy self-control/self-discipline, realistic expectations, self-directedness, healthy self-interest/self-care, stable attachment, and healthy self-confidence/competence. The Multidimensional Relationship Scale consists of 8 sub-dimensions: high levels of focus on the relationship, relationship satisfaction, relationship fear or anxiety, self-confidence in the relationship, relationship monitoring, external relationship control, relationship initiative, and internal relationship control.

**Results:** Independent Sample T-Test, ANOVA, and Pearson Correlation Analysis were used to analyze the data of the study. The results showed that positive schemas did not differ according to demographic variables such as gender, relationship status, duration of the relationship, and education level, but a difference was found between different age groups. Multidimensional relationship scores did not differ in terms of gender and duration of relationship variables but differed in terms of relationship status, age, and education level.

There is a positive correlation between relationship satisfaction, high levels of focus on the relationship, self-confidence in the relationship, relationship initiative sub-dimensions, internal relationship control, and positive schemas. There was a negative correlation between relationship fear/anxiety and relationship impression management (concern for others' opinions about one's close relationship) sub-dimensions and positive schemas. There is no significant correlation between external relationship control (perceiving the course of the relationship as being determined by chance or fate) and positive schemas.

**Discussion:** Associations between early adaptive schemas and dimensions of romantic relationship tendencies are discussed in light of the findings of a limited number of previous studies.

**Conclusion:** This study, being one of the pioneering works in the field, has demonstrated that adaptive patterns carried from childhood are associated with perception styles and behaviors within intimate relationships. Further research should reveal mediating mechanisms between those associations.

## Examining The Relationship Between Exposure to Psychological Violence and Aggression Level in Adult Individuals

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**Objective:** The aim of this study is to examine the relationship between exposure to psychological violence and the level of aggression in adults.

**Method:** Research data were collected by online survey method from 459 viewers who agreed to participate between April and May 2023. Sociodemographic Data Form, Informed Consent Form, Exposure to Impulsive Violence Scale and Buss-Perry Aggression Scale were used. results of the data. Cronbach Alpha values were calculated to see the reliability of the scales. Detailed statistics were used in the analysis of the data, and the Pearson weighted test was used to examine the relationship between the scales. Independent Groups T-Test was used to analyze whether the data differed by gender. Whether the data differ according to education level is discussed with One-Way ANOVA Analysis.

**Results:** There is a significant relationship between the level of exposure to psychological violence and aggression. Exposure to psychological violence and level of aggression do not differ according to gender and educational status.

**Keywords:** Violence, psychological violence, aggression

## Process Evaluations of Digital Mental Health Interventions For People With Psychosis: A Mixed Methods Systematic Review Protocol

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**Background:** Improving access and adherence to psychological interventions, such as cognitive behavioural therapy, is a persistent challenge in the treatment of psychosis. Research findings suggest that the use of digital mental health interventions, including those delivered via smartphone applications, virtual reality and the web, is a promising treatment modality for those with psychosis. However, a recent review has identified many barriers to the implementation of digital mental health interventions for this population. Therefore, there is a clear need to understand how digital mental health interventions are evaluated to better understand how they may be implemented in clinical practice for users with psychosis.

Process evaluations are a recommended research methodology for evaluating complex interventions and provides insight into an intervention's implementation, context and mechanisms of impact. Process evaluations of digital mental health interventions used by those with psychosis have been developed in the United Kingdom. However, a systematic review of these process evaluations is lacking.

This systematic review will summarise and assess the methodological quality of available process data for digital mental health interventions used by people with psychosis in the United Kingdom.

**Methods:** A two-phase systematic search strategy will be used to (1) identify an index sample of peer-reviewed randomised controlled trials conducted after 2004 in the United Kingdom indexed in CINAHL, PsycNet and the Cochrane Library and (2) identify associated publications. To be included, index samples must evaluate a digital intervention targeting a mental health difficulty used by those with psychosis aged 14 or over. For phase 2, an operational definition of process evaluations based on the Medical Research Council's framework will be used to identify process data reported in the associated publications. For both screening phases, reviewers will independently apply the inclusion criteria to all titles, abstracts and full texts. The methodological quality of trial index papers will be independently rated by reviewers using the updated Cochrane's Collaboration tool to assess risks of bias.

**Results:** Quantitative and qualitative data will be independently extracted from associated publications in tabular form by reviewers. Data will be synthesised using framework analysis using the Medical Research Council's process evaluation framework to organise process data into the following themes: intervention context, implementation and mechanisms of impact.

**Discussion:** Review findings will be used to give a summary of the frequency with which the Medical Research Council's process evaluation components are collected in studies conducted in the United Kingdom which can be used to identify areas for future research. The authors will also describe the labelling of process data to consider the accessibility of process data in this context.

**Conclusion:** Findings from the review will provide recommendations for future work on process evaluations and primary research in this field. Review findings may also provide recommendations on the reporting and dissemination of process data.

## A Systematic Review of Parental Involvement in Digital CBT Interventions for Child Anxiety

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Anxiety disorders are the most common childhood mental health conditions worldwide, affecting approximately 5.2% of youth. They have detrimental impacts on everyday functioning and long-term developmental trajectories, often leading to chronic, comorbid mental health disorders if not treated early on. Although cognitive behavioural therapy (CBT) demonstrates a substantial evidence base as a first line treatment for anxiety in children, only a small minority of those affected receive it due to resource limitations and other barriers. To improve access to evidence-based care, there have been substantial efforts in the last two decades to translate traditional face-to-face treatments into digital interventions that can be administered as self-help program or programs with minimal therapist guidance via the internet and/or using an electronic device. Current meta-analyses indicate that digital CBT for youth anxiety has outperformed waitlist comparisons and demonstrated equal efficacy to face-to-face CBT. Yet, the challenge remains to improve remission rates, treatment adherence, and long-term gains. As theoretical frameworks posit that child anxiety develops and is maintained in a family context, parental involvement has been put forward as potential variable influencing intervention outcomes. However, empirical findings on the benefits of parental involvement have been mixed, largely due to vast heterogeneity in methodology and intervention design. There are currently no clear guidelines regarding if, when, and how parents should be involved in digital interventions for child anxiety. This systematic review aims to identify the nature and characteristics of parental involvement in digital CBT intervention literature for child anxiety and to summarise how these may relate to short- and long-term treatment outcomes for child anxiety. For the purposes of this review, the participants are parents of 3- to 12-year-old children with an anxiety disorder diagnosis or elevated anxiety symptoms. Only studies on digital CBT interventions targeting child anxiety with an active parental component were included, and involved interventions delivered to parents only (that aimed to reduce child anxiety by improving parenting knowledge/practices/behaviour to support children with anxiety) or interventions that also included content for the children. Systematic searches of six electronic databases (including CINAHL, Embase, ERIC, PsycINFO, PubMed, and Scopus) were conducted to identify relevant peer-reviewed papers. Full-text articles meeting criteria were extracted by two reviewers, with risk of bias assessed using the Cochrane RoB2 and ROBINS-I tools. Twenty-three articles were deemed eligible for inclusion in the review. To summarise the nature and characteristics of parental involvement in digital CBT interventions for child anxiety comprehensively, the number, frequency, duration, format, and content of parent sessions were reviewed. The results will be discussed in terms of how these characteristics reflect what is currently known regarding effective parent involvement in child anxiety interventions. The review contributes to child anxiety research by being the first to systematically examine the characteristics of parental involvement in digital CBT interventions. The findings may directly inform the content development of future digital interventions aimed at improving treatment outcomes for children and their families.

## Investigation of the Relationship of Mindful Eating with ADHD, Depression and Anxiety Symptoms in University Students

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**Introduction:** Mindful eating is described as eating while paying attention to physical and emotional sensations. Although the association between mindful eating and various psychological factors has grown in relevance in recent years, there have been few comprehensive research on its relationship with psychiatric symptoms like depression and anxiety.

**Method:** Participants (N= 998), completed sociodemographic form, mindful eating, anxiety, depression, and ADHD questionnaires. Independent samples t-test and one-way ANOVA analyses were used to assess the difference between sociodemographic factors and scales.

**Results:** Hierarchical regression analysis revealed that in the final model, age ( $p < .01$ ), BMI ( $p < .001$ ), depression ( $p < .001$ ), and ADHD symptoms ( $p < .001$ ) significantly predicted mindful eating.

**Discussion:** It is significant to note that both physiological factors (age and BMI), and psychiatric factors (depression and ADHD symptoms), have a relationship with mindful eating in this study. It was determined that mindful eating positively related to age but negatively related to body mass index, anxiety and ADHD symptoms.

**Conclusion:** This study presented important findings on the relationship between mindful eating and psychological factors. The relationship between mindful eating and the severity of depression and ADHD symptoms should be supported by future intervention studies in clinical sample.

## Bipolar Affective Disorder and Early Maladaptive Schemas

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**Introduction:** Early maladaptive schemas (EMS) are cognitive structures that develop due to negative life experiences in early childhood and they affect our emotions, thoughts and behaviors (1). Bipolar affective disorder (BAD) has been reported by WHO as the sixth rank among the diseases that cause disability in the society, and it is a chronic psychiatric disease that negatively affects the functionality of patients (2). There are many studies in the literature that draw attention to the association of EMS with psychopathology (anxiety disorders, depressive disorder, schizophrenia, etc.). However, there are few studies examining EMS and their effect on the prognosis of BAD.

The aim of our study is to examine how EMS that occur in the early period affect the prognosis of the disease when BAD patients are compared within themselves, and also to compare the differences between BAD patients and the control group in terms of the presence of EMSs.

**Method:** The Young Schema Questionnaire (YSQ) and a sociodemographic data form, to determine the prognosis of the disease, were applied to the euthymic patients diagnosed with BAD (n=50) who applied to psychiatry outpatient clinic and to the control group (n=50). Totally 100 patients were enrolled. Inclusion criteria: Age>18, having diagnosis for BAD and being in euthymic state at time of assessment. Exclusion criteria: Age>70 years, having diagnosis for psychotic disorder, having any degree of cognitive impairment.

**Results:** When BAD group was compared with controls, a significant difference was found in terms of failure, fear of abandonment, dependence/incompetence, defectiveness/shame and insufficient self-discipline schema dimensions' scores. When BAD patients were compared among themselves in terms of the prognosis of the disease: failure, pessimism, social isolation, dependence/incompetence, vulnerability, insufficient self-discipline and defectiveness schemas were found to be significantly higher in the poor prognosis group. failure, pessimism, social isolation, dependence/incompetence, vulnerability, defectiveness schemas were also associated with more frequent depressive attacks and hospitalization and showed more suicide attempts. Insufficient self-discipline were associated with more frequent manic attacks and hospitalization and showed more suicide attempts. failure, pessimism, social isolation, dependence/incompetence, insufficient self-discipline and defectiveness schemas were associated with lower financial status and irregular working. People who showed vulnerability, dependence/incompetence, insufficient self-discipline, failure, pessimism schemas tend to live with their parents.

**Discussion:** Findings suggest that BAD patients experience difficulties in their autonomy functions. There may be a lack of being functional in interpersonal relations and using emotion regulation strategies that will contribute to the adaptation processes in this sense.

**Conclusion:** Determining the underlying schemas and basic needs of BAD patients, improving their coping skills in therapies, enabling them to take responsibility during treatment and overcoming cognitive and behavioral difficulties caused by psychosocial stresses will contribute significantly to their psychosocial functionality.

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## Development of the Program for the Prevention of Professional Burnout of Employees Using the Methods of Cognitive-Behavioral Short-Term Psychotherapy and Cognitive-Behavioral Coaching

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**Introduction:** The problem of professional burnout is relevant for most organizations. Burnout leads to decrease of the efficiency of the employee, and, accordingly, the profit of the company. At the same time, the organizational competition requires more and more efforts from employees and leads to faster burnout. It turns out a vicious circle. An employee burnout prevention program using CBT and CBC methods will help to reduce the likelihood of employee burnout despite environmental stressors. The methods of CBT and CBC contribute to the development of more effective thinking and, therefore, more effective response to external adverse circumstances.

**Purpose:** to develop and to test the program for the prevention of professional burnout of employees using the methods of cognitive-behavioral short-term psychotherapy and cognitive-behavioral coaching.

**Method:** The method of forming experiment was used. As an evaluation tool, the methodology for assessing the level of professional burnout elaborated by N.Vodopyanova was used.

**Sample:** A total sample was 38 people participated in the study, which were employees of the same business organization.

**Design:** 1) assessment of professional burnout using Vodopyanova's methodology. After that, 20 people with a high level of burnout were selected. 2) these people were divided into control and experimental groups of 10 people each. The experimental group underwent a burnout prevention program, while the control group did not. 3) at the end of the program, the level of professional burnout was measured again using the same methodology. 4) statistical data processing and analysis.

**Results:** The results of the primary diagnostics displayed an average level on the psycho-emotional exhaustion scale; an extremely high level on a scale of depersonalization, and a high level on a scale of reduction of professional achievements. The level of professional burnout was assessed in both groups in 2 weeks after the completion of the program in the experimental group. The results of the experimental and control groups were compared using the Mann-Whitney test. The results showed a significant decrease in the level of professional burnout in the experimental group ( $p \leq 0.01$ ), and the absence of such effect in the control group, which indicates the effectiveness of the program.

**Discussion:** The program took place during 4 days for 4 hours once a week, respectively, the whole program took one month. The program took place in the format of group coaching and had a clearly defined protocol, which was due to the client's requirement for the reproducibility of the program. A feature of the program was the combination of therapeutic and coaching tools, which proved to be effective for the organizational context since employees in the organizations are not always ready for therapeutic work.

**Conclusions:** The professional burnout prevention program using the methods of short-term cognitive-behavioral therapy and cognitive-behavioral coaching can be recommended for implementation in organizations. However, since the program has been tested in only one organization, it may need to be modified in another organization depending on the initial level of professional burnout and the specifics of the employees' activities.

## Anxiety Reduction and Mindfulness Practice through Virtual Reality Applications

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Technologies such as virtual reality (VR) are making mental health interventions more accessible to many people. The benefits of using Virtual Reality (VR) in healthcare have been proven in many areas. Experimental studies showed that the use of Virtual Reality (VR) will create a potential treatment strategy which will help to decrease anxiety scores. This study examines the effect of the integration of Virtual Reality (VR) and Mindfulness applications on anxiety and mindfulness scores in the general population. While the participants in the experimental group will receive VR and mindfulness strategies, the participants in the control group will be given 360-degree video-record mindfulness strategies. With the five-week VR and mindfulness-based intervention program carried out over the VR application, a decrease in anxiety scores and an increase in mindfulness scores are expected in the experimental group, differing significantly from the control group. In the study, the anxiety and mindfulness scores of the individuals will be determined with the Beck Anxiety Scale, The Brief Fear of Negative Evaluation Scale (BFNE) and the Mindfulness Scale at the first, third, fifth, and eighth weeks. By examining the trend created by the change in scores, the effect and optimal duration of the application will be determined. Mindfulness techniques are diversified including Conscious Breathing Awareness, Body Scanning, Mindful Vision, Mindful Hearing, and Three-Minute Breathing. In this way, it is aimed to determine which mindfulness exercise was the one with the highest decrease in anxiety scores. Before and after the application, anxiety scores were determined by the Beck Anxiety Scale, Liebowitz Social Anxiety Inventory (LSAS), The Brief Fear of Negative Evaluation Scale (BFNE) and mindfulness scores decided Mindful Attention Awareness Scale of the experimental and control groups will be compared Independent Sample T-test; which will be measured every week before, during and after the application. The results will be compared by the two-way ANOVA test, and the most effective exercise will be determined. It is expected that mindfulness exercises applied through VR will significantly reduce anxiety scores and significantly increase mindfulness scores. It is anticipated that the results of this study will be beneficial not only in the field of research but also in the field of clinical practice. The report presented in this study will be an example of an intervention program for the development of virtual reality and mindfulness practices for mental health in our country. It will provide information about the participant profiles and the application protocol and process for further studies in this field.

## Cognitive-Behavioral Coaching. The Effectiveness of the Model PRACTICE Evaluation

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The article deals with the problem of evaluating the effectiveness of the model of cognitive-behavioral coaching PRACTICE.

The PRACTICE model received the most evidence-based confirmation in studies, therefore it was used for testing on a Russian sample.

Sample: 18 coaches and 18 clients (coaches).

Methodology: transcripts of the sessions conducted were analyzed using qualitative content analysis. In addition, to assess clients' changes, the Personal Efficiency Assessment questionnaire was used, which includes the following scales: locus of control, goal setting, self-organization, self-confidence, level of empathy, propensity to cooperate, desire for self-development.

As a result of testing, it was concluded that the PRACTICE model is well received by Russian-speaking clients and is productive for working with operational goals. As a result of applying the model, clients significantly increased the overall indicator of personal effectiveness, as well as indicators on individual scales: goal setting, the level of self-organization, the desire for self-development ( $p \leq 0.05$ ). The PRACTICE model is also compatible with many other coaching techniques and models.

## A Feasibility Study for a Smartphone-Based Application for the Behavioral Cognitive Therapy for Panic Disorder on Healthy Volunteers Who Had Experienced Panic Attacks

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Panic disorder is a very common disease that can cause severe disability. Cognitive behavioral therapy, which is the primary treatment for panic disorder, is highly effective. However, the number of psychiatrists is insufficient to meet the need. In this thesis, it was aimed to develop and test the applicability of the first smartphone-based application in the literature that performs structured cognitive behavioral therapy for panic disorder.

While developing the application, cognitive behavioral therapy techniques; psychoeducation, use of a panic attack diary, examining catastrophic thoughts, generating alternative thoughts, examining evidence, and in-session exposure exercises were used. To obtain more objective information about the application, a feasibility study was conducted on 20 healthy volunteers who had experienced panic attacks before.

All participants completed every session. It was observed that as the participants' education level decreased, the sessions' completion times increased, but all the sessions were completed in less than 20 minutes. Participants required less than one help in two sessions on average, and it was determined that the level of education did not have a statistically significant effect on the number of assistance received during the application.

As a result of the feasibility study, 85% of the participants stated that they found the application very understandable, 95% would recommend the application to a friend who had panic attacks, and 80% indicated that they found the application extremely useful. It was determined that the participants' desire to use the application increased as the sessions progressed. All of the participants stated that they would be willing or very willing to use the application if they continued to experience panic attacks after they finished all the sessions. In the upcoming period, it is aimed to examine the effectiveness of the application and obtain a patent.

## Sexual Attitudes and Cognitive Flexibility in the Geriatric Population: Preliminary Data

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**Introduction:** The increase in the elderly population today has led to the introduction and discussion of new needs and expectations in elderly health, including sexual health. Contrary to the social belief that sexuality does not or should not last in old age, sexuality is necessary in order to maintain emotional intimacy, to experience physical satisfaction and to meet ongoing biological needs in the elderly. The aim of the study is to examine the effect of cognitive flexibility levels of elderly individuals on sexual attitudes.

**Method:** The sample of the study consisted of 30 individuals, who were relatives of the patients who applied to the psychiatry outpatient clinic, over the age of 60 and did not receive psychiatric treatment. "Socio-Demographic Data Form", "Cognitive Flexibility Inventory" and "Sexual Attitude Scale for Elderly Individuals" were used as measurement tools in the research.

**Results:** According to the findings, the mean age of the participants was  $69 \pm 4.7$  years. 11 of the participants were female and 19 of them were male. 70% of the participants were married and 30% were divorced or living alone. Correlation analysis was performed to examine the relationship between participants' sexual attitudes and cognitive flexibility. No relationship was found between the sexual attitudes and cognitive flexibility of the participants ( $r: 0.106$   $P: 0.576$ ). In addition, the relationship between age and sexual attitudes and cognitive flexibility in the participants was examined. There was no significant relationship between age, sexual attitudes and cognitive flexibility. The participants were divided into 2 groups according to their gender, chronic illness, whether they used walking aids and whether they had a past psychiatric illness, and the sexual attitudes and cognitive flexibility of the participants were compared between the groups. Among the groups, gender (SA:  $p=0.590$ , CF:  $p=0.343$ ), chronic disease status (SA:  $p=0.982$ , CF:  $p=0.159$ ), using or not using walking aids (SA:  $p=0.139$ , CF:  $p=0.833$ ) and past psychiatric illness (SA:  $p=0.467$ , CF:  $p=0.074$ ), no significant difference was found.

**Discussion:** When we look at the factors affecting aging and sexuality in old age in the literature, presence of partners, disease states, drugs, physical disabilities, negative perception of body image and mental disorders attract attention (1,2,3). Although it is seen that another factors affecting sexuality in the elderly are social prejudices and myths such as the acceptance of sexuality as the domain of young people and the disapproval of sexuality in old age, as far as we can find, there has been no study examining the relationship between cognitive flexibility and sexual attitudes in old age (4,5). In our study, no relationship was found between the sexual attitudes and cognitive flexibility of the participants. This situation was thought to be due to the limited sample size.

**Conclusion:** As a result of this study, it was thought that there is a need for new researches in terms of sexual health in old age, determining the factors affecting the elderly sexuality and raising a perspective and awareness about the approach of health professionals to elderly sexuality.

## Investigation of Depression, Anxiety and Schemas in Newly Diagnosed Epilepsy Patients: 3-Month Follow-Up Study.

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**Introduction:** Epilepsy is one of the most frequently observed chronic neurological diseases and causes various psychopathologies. Schemas are relatively permanent cognitive structures that generally emerge from the early stages of life through personal experiences and identifications with important people in our environment, are reinforced by similar experiences in the following periods, lead the individual to process, interpret and transform information into emotions and behaviors, and in short, shape his/her life. Epilepsy can lead to the activation of negative cognitions because it can occur at any time, disrupt functionality with recurrent seizures, cause accidents and injuries, and fear of death. The aim of our study is to examine the changes in depression, anxiety and schemas observed in newly diagnosed epilepsy patients over a 3-month period.

**Method:** Twenty patients who applied to the neurology clinic for the first time with the complaint of epileptic seizure and were diagnosed with epilepsy by the clinician were included in our study. "Sociodemographic Data Form", "Beck Anxiety Scale", "Beck Depression Scale", and "Young Schema Scale Short Form" were applied to the participants in the third week and third month after the first seizure.

**Results:** 60% (n:12) of the participants were women, 60% (n:12) were married, and 65% (n:13) were not working. 65% (n: 13) were smokers, 35% (n: 7) had a comorbid medical condition, 40% had a history of physical trauma in their first seizure. 60% (n:40) had epileptic seizures again. No significant change was observed in the BDI and BAI scales in the 3-month period ( $p>0.05$ ). At the end of the 3-month period, a significant increase was observed in "insufficient self-control" and "self-sacrifice" subscales of YSS-SF3 compared to the baseline level ( $p<0.05$ ). Approval-seeking" and "higher standards" were significantly higher singles than for married people; "Approval-seeking", "self-sacrifice", "punishment" and "high standards" were significantly higher in men than in women. There was no difference in schemas between those who experienced physical trauma in the first seizure and those who did not. Similarly, those who had only one seizure and those who had more than one seizure were similar in terms of schemas.

**Discussion:** It is known that epilepsy causes various mental disorders and negatively affects cognitive processes. There is limited research on schemas in epilepsy. In one study, it was stated that maladaptive schemas were significantly higher in individuals with epilepsy than in healthy controls, and males had higher levels of maladaptive schemas.

**Conclusion:** In individuals with epilepsy, negative schemas may be activated as time passes after the first attack. Some schemas may be affected by sociodemographic variables such as gender and marital status. This study emphasizes the impact of negative schemas and suggests that appropriate psychotherapeutic interventions such as schema-focused therapy may be beneficial in individuals with epilepsy.

## The Beacon of Hope: Exploring Caregiver Burden Among Cancer and Chronic Disease Carers

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**Introduction:** Caregiver burden, a multidimensional response to the stressors associated with caregiving, remains an area of intense study, especially in the context of chronic diseases and cancer. This study aimed to investigate the relationships between factors like hope, depression, stress and anxiety, that might play significant roles in shaping this burden.

**Method:** Data were gathered from caregivers of two distinct patient groups aged 65 years and above: 75 caregivers of cancer patients and 75 caregivers of patients with chronic diseases. Assessment tools included the Zarit Care Burden Scale, the Depression-Anxiety-Stress Scale (DASS-21), and the Herth Hope Index (HHI).

**Results:** Caregivers of cancer patients displayed a heightened Zarit caregiver burden in contrast to chronic disease caregivers (31.45±8.427 vs. 29.71±6.786); however, this difference was not statistically significant ( $p>0.05$ ). While cancer caregivers recorded a marginally lower score on HOPE-temporality and future (14.10±3.25,  $p>0.05$ ), they registered a statistically significant dip in HOPE-positive readiness and expectancy (13.58±3.823,  $p=0.003$ ) compared to their chronic disease counterparts (14.49±3.06 and 15.39±3.46, respectively). On the DASS-21 subscales, no marked statistical difference was observed between the two groups concerning stress (12.34±3.71 vs. 11.73±2.55) and anxiety levels (5.83±1.03 vs. 4.40, ±0.94). However, caregivers of cancer patients exhibited significantly escalated levels of depression (8.40±1.48 vs. 7.52±0.99,  $p<0.001$ ).

Depression and stress severity explained 41.5% of the variance in Zarit Care Burden Scale scores ( $F(3,71)=16.814, p<0.001$ ), illustrating their significant predictive relationship with caregiver burden among caregivers of patients with chronic diseases, whereas HHI-temporality and future, HHI-positive readiness and expectancy and HHI-interconnectedness subscores, stress severity and gender (male vs. female) explained 72.3% of the variance in Zarit Care Burden Scale scores ( $F(6,68) = 29.510, p < 0.001$ ), illustrating their significant predictive relationship with caregiver Burden among cancer caregivers.

Mediation analyses revealed that both HHI-positive readiness and expectancy and HHI-temporality and future subscores significantly mediated the relationship between depression and Zarit caregiver burden. Both HHI-positive readiness and expectancy (Indirect Effect = 0.436,  $p < 0.05$ ) and HHI-temporality and future subscores (Indirect Effect = 0.488,  $p < 0.05$ ) played significant roles in explaining the relationship between depression and caregiver burden, although the relationship between depression and caregiver burden remained significant even after accounting for these mediators.

**Discussion:** Despite expecting chronic disease caregivers to have higher levels of depression, anxiety, and stress due to the enduring nature of their role, our results revealed a more pronounced psychological impact in the cancer caregiving context. This is notably tied to diminished hope among these caregivers.

**Conclusion:** Hope stands out as a vital component in mitigating caregiver burden for those tending to cancer patients. As such, hope-focused interventions are strongly recommended for them, fostering resilience and optimism. This study emphasizes the need for targeted interventions, especially hope-centered ones for cancer caregivers, to effectively manage caregiver distress. Future research should delve deeper into the factors, especially the role of hope, that contribute to these differences, thereby informing the development of more effective caregiver support mechanisms.

**Keywords:** cancer, caregiver burden, depression, hope, stress



## Direct and Indirect Effects of Attachment Quality to Parents and Peers on Internet Gaming Disorder in Adolescents: The Role of Negative Automatic Thoughts

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**Introduction:** The literature on the association between parental (i.e., mother and father) and peer attachment and Internet Gaming Disorder (IGD) showed different patterns of interactions, with most studies pointing to them as important protective factors for IGD in adolescence. However, there remains a scarcity of evidence related to the underlying mechanisms that link the quality of the attachment with parents and peers to IGD in adolescence. Therefore, the aim of this study is to investigate the direct and indirect effects of attachment to parents (i.e., mother and father) and peers on IGD through adolescents' negative automatic thoughts.

**Methods:** A convenient sample of 697 adolescents (mean age 14,98 years old) and their parents were recruited between June and October 2019 from five Romanian highschools. Preliminary data analyses and descriptive statistics were performed using IBM SPSS 23, while path analyses in AMOS (Version 23.0) were used to test the model fit.

**Results:** Attachment to parents (i.e., mother and father) and peers were found to be indirectly associated with IGD through adolescents' negative automatic thoughts. No direct effect of individual parents attachment on IGD was identified. However, a direct effect was observed in the case of peer attachment and IGD, with peers attachment being negatively associated with IGD.

**Discussion:** In line with previous research, the quality of attachment to parent and peers was found to play an important role in the development of IGD in Romanian adolescents. While peers attachment relationship to IGD was partly mediated by the automatic thoughts, the quality of attachment to mother and fathers affects IGD only through the negative automatic thoughts of adolescents. Meaning that a less secure bond with the parents will be developed in negative working models in adolescents, that will further increase IGD symptomatology. Therefore both attachment to parent-peers and negative automatic thoughts should be considered when targeting IGD in interventions for adolescents. Further implications and limitations will be discussed.

**Conclusion:** This study is the first to look at specific attachment relationships (i.e., mother, father and peers attachment) and IGD, and negative automatic thoughts as mediators of them. Further interventions and prevention studies should be focusing on this specific predictors in reducing IGD in adolescents.

## Effects of Anxiety, Depression and Psychological Inflexibility on Sleep Quality in Patients with Cataract

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**Introduction:** Cataract is a disease characterized by reduced transparency and increased lens opacity. A multifactorial disease associated with age, female sex, and genetic predisposition, cataract is the leading cause of reversible visual impairment and blindness worldwide (1). Cataract leads to reduced sleep duration and quality in patients. Studies have found an association between cataract surgery and improved sleep quality. However, other studies have reported that cataract surgery does not lead to a positive change in sleep problems (2). Few studies have directly investigated the effect of anxiety and depression on sleep quality in patients with visual impairment (including cataract) (3). To the best of our knowledge, the effect of psychological inflexibility has not been investigated in this area. The aim of this study was to investigate the effect of anxiety, depression, and psychological inflexibility on sleep in patients with cataract.

**Method:** The power analysis showed that the required sample size was 92 to have 80% power to detect a medium effect (0.15) with a significance criterion of  $\alpha=0.05$ . 104 patients with cataract who were admitted to the hospital and agreed to participate in the study were enrolled. Sociodemographic data form, Pittsburgh Sleep Quality Index (PSQI), Hospital Anxiety and Depression Scale (HADS), and Acceptance and Action Questionnaire (AAQ-II) were applied to all of the cases. The assumptions required for our study analysis were checked (linearity, multicollinearity, homoscedasticity, independence of errors, and normality).

**Results:** The mean age of the participants was  $62.93 \pm 8.73$  years and 46 (44.2%) were female. AAQ-II ( $p<0,001$ ), HADS-A ( $p<0,001$ ), and HADS-D scores ( $p=0,022$ ) were significantly and positively correlated with PSQI scores. Age ( $p=0,261$ ) exhibited no significant association with PSQI scores. A multiple linear regression model was tested with PSQI as the dependent variable and age, sex, AAQ-II, HADS-A, and HADS-D as independent variables. The independent variables in the model explained 24% of the variance in the PSQI [adjusted  $R^2=0.24$ ,  $F(5,98)=7.497$ ,  $p<0.001$ ]. Only the AAQ-II results exhibited a significant predictive effect on the PSQI ( $\beta=0.330$ ,  $p=0.008$ ).

**Discussion:** The results of our research revealed that anxiety, depression, and psychological inflexibility were associated with poorer sleep quality in patients with cataract. Furthermore, psychological inflexibility is the only predictor of sleep quality among our study parameters. Psychological inflexibility is a transdiagnostic factor that is thought to be at the root of psychopathology and can make it difficult to cope with stress and change. This can lead to anxiety, depression, and sleep problems.

**Conclusion:** Psychological inflexibility should be considered when addressing sleep problems in cataract patients, in addition to depression and anxiety.

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## Comparison of Metacognitive Abilities Between Early Psychosis and Chronic Stage of Schizophrenia

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**Introduction and Aim:** Metacognition has been defined as “thinking about thinking”. Thanks to previous studies, it is known that there are metacognitive deficits in schizophrenia. A limited number of studies have shown that metacognitive deficits are also present in first episode of schizophrenia. However, there is no consensus on whether metacognitive deficits worsen during the chronicity of psychosis. In some follow-up studies, it was observed that metacognition did not change during the process and metacognition was evaluated as a trait-like marker, while other studies some components of metacognition were found to be better in the chronic psychotic period.

In order to eliminate the confounding effects of drug use and cognitive deterioration and evaluate metacognitive functions more objectively, it is important to examine patients with first episode psychosis in the first two years of the disease and to evaluate the changes in metacognitive functions in the later stages of the disease. Therefore, in this study, it was aimed to compare the metacognitive abilities of patients presenting with the earliest stage of schizophrenia and the chronic stage.

**Materials and Method:** Patients with a diagnosis of schizophrenia who were in the first 2 years of their illness (first episode) and had symptoms for more than 2 years were evaluated cross-sectionally. Both groups were included in study when psychosis was active phase. The MAS-A scale was used to evaluate metacognitive skills and the PANSS scale was used to measure symptomatology. The two groups were compared in terms of sociodemographic clinical characteristics and MAS-A and PANSS scale scores.

**Findings:** 34 first-episode and 27 chronic patients with schizophrenia were included in the study. There was no significant difference between the two groups in terms of gender, education, alcohol, cigarette and substance use and symptom severity ( $p < 0,05$ ). In terms of age, the chronic schizophrenia sample was older ( $p < 0,01$ ) and had more comorbidities ( $p < 0,05$ ). There was no significant difference in each of the MAS-A subscales and the MAS-A total score in the first episode and chronic period of schizophrenia ( $p > 0,05$ ).

**Discussion:** The fact that no difference was found in terms of metacognitive abilities in the early stages and later stages of the disease in schizophrenic patients may suggest that the impairment in metacognitive functions may be a trait-like feature in schizophrenia. On the other hand, studies in which patients are evaluated in the remission period are needed to evaluate the confounding effect of psychosis, since both groups are in the active phase of the disease.

Deficits in metacognitive skills may be an important feature in determining the risk of schizophrenia and may contribute to the identification of high-risk individuals. Treatments and therapies targeting metacognitive skills may be important in reducing disability after the onset of the disease.

**Conclusion:** This study is important in terms of showing that deficiencies in metacognitive skills in schizophrenia patients are similar in the chronic and early stages and do not occur together with cognitive decline in the later stages of the disease.

## Mental Health Outcome Inequalities in IAPT Services: An Investigation of the Minority Stress Hypothesis

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**Aim:** Evidence shows ethnic minority communities have lower access to treatment and poorer recovery rates in Improving Access to Psychological Therapies (IAPT) services. Some research suggests this may be explained by socioeconomic deprivation, but other hypotheses suggest that it may have to do with sociocultural factors. This study intended to examine whether there is evidence of a minority stress effect - where the mental health of people from ethnic minorities (EM) may be influenced by living in neighbourhoods with low or high minority ethnic density.

**Method:** Using multilevel modelling, healthcare records of 130,857 patients who had accessed Low and High Intensity psychological therapies across 16 IAPT services were analysed whilst controlling for socioeconomic deprivation. Patient-level depression (PHQ9), anxiety (GAD-7) and functioning (WSAS) outcomes measures were linked to neighbourhood ethnic density data.

**Results:** Overall we found evidence that patients from specific EM groups (Black Caribbean, Black (other), Pakistani, Bangladeshi, White - other) had more severe anxiety and depression symptoms after treatment, relative to white British patients. These differences were statistically significant after controlling for socioeconomic deprivation and employment status. There was some support for the minority stress effect, but only relevant to patients from Black Caribbean, Black-other and White - other backgrounds.

**Conclusion:** There is evidence of mental health inequalities related to ethnicity, which is not fully explained by socioeconomic variables.

## Examining the Potential of a Breath Pacer as Adjuvant in Cognitive Behavioral Therapy: Case Studies in Digital Health for Mental Well-Being

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**Introduction:** The prevalence of mental health issues has reached alarming levels worldwide, necessitating effective therapeutic interventions to address the growing burden. Breathing therapy, particularly slow-paced breathing exercises, has emerged as a recognized and valuable method for promoting mental well-being. Integrating breathing exercises into therapeutic practices, such as cognitive behavioral therapy (CBT), has shown promising results in managing stress and reducing anxiety. Moreover, the recent surge in demand for accessible and continued at-home therapy options has led to the development of innovative technological solutions to support treatment. These advancements offer a promising approach to enhance treatment outcomes and empower clients to actively engage in their therapeutic journey. As a result, this study seeks to investigate the potential of a tactile breath pacer as an adjuvant in CBT for individuals with various mental health conditions.

**Method:** The study involved six participants with diverse mental health needs, including autism, depression, burnout, bipolar disorder, sleeping problems, and anorexia. The moonbird breath pacer was incorporated into therapy sessions for a minimum of one month. Regular check-ins and progress updates, both during therapy sessions and via bi-weekly emails, were conducted by the therapist to monitor adherence to moonbird usage, track participants' progress and discuss experiences and feedback.

**Results:** The breath pacer as an adjuvant in CBT showed promising results. Participants found the device easy to use, engaging with it daily. Personalized usage patterns were tailored to individual needs, promoting relaxation and aiding in emotion regulation and sleep initiation. Regardless of the initial reason for implementing moonbird, many participants ended up using it to improve sleep quality. Most participants extended the use of the device over one month.

**Discussion:** The study demonstrates the potential benefits of integrating technology into therapeutic practices. The breath pacer served as a physical tool to redirect attention towards breathing during emotional moments, promoting relaxation and facilitating sleep. The incorporation of technology supports blended care, combining in-person and remote elements for a flexible and accessible approach to therapy. This personalized approach empowers clients to actively participate in their therapeutic journey, enhancing engagement and therapeutic outcomes.

**Conclusion:** The integration of a breath pacer as an adjuvant in CBT offers promising implications for mental well-being. Technology-supported breathing exercises complement traditional therapy, allowing for tailored treatment plans and empowering clients to take ownership of their healing process. In light of existing research, the study emphasizes the potential of technology-assisted interventions in mental health care and supports the advancement of personalized therapeutic practices.

## Preliminary Results of an Experience Sampling Investigation of Repetitive Negative Thinking: The Effects on Negative Emotions and Somatic Health Complaints

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**Introduction:** The Experience Sampling Method (ESM) is a valuable tool for assessing individuals' internal experiences, such as emotions, thoughts, bodily sensations, symptoms, and contextual factors in daily life (Myin-Germeyns et al., 2018). This study aimed to examine the relationship between repetitive negative thinking (worry and rumination) and internal experiences by collecting real-time data through repetitive measurements in daily life. The primary objective was to evaluate the effects of repetitive negative thinking on subsequent emotions and somatic complaints.

**Method:** Participants were recruited from the Istanbul Medipol University Psychology Department. After providing written informed consent, they initially completed a battery of self-report questionnaires and then took part in the Experience Sampling Method (ESM) phase of the study. During this phase, participants were asked to provide repeated self-reports on emotions, worry, rumination, and somatic health complaints. A mobile application prompted these self-report measures semi-randomly at intervals of 90 minutes throughout the day. This data collection process occurred ten times daily and continued for seven consecutive days. After the seventh day, participants were debriefed and received compensation. Multilevel modeling was used to examine the links within the clustered data (Raudenbush & Bryk, 2002).

**Results:** Forty-two participants completed the ESM phase. The overall compliance rate with the ESM protocol was 81.9 %, comparable with other ESM studies (Pawluk et al., 2012). The unconditional model revealed significant Level 2 variance for negative emotions and somatic complaints. The ICC (Intraclass correlation) for negative emotions and somatic complaints were 0.32 and 0.48, respectively. Worry and rumination were both found to be associated with a subsequent decrease in negative emotions and somatic complaints.

**Discussion:** These findings suggest that repetitive negative thinking may serve as a mechanism for regulating negative emotions and reducing somatic complaints. These results support the avoidance function of RNT (Borkovec & Inz, 1990) and highlight the importance of considering individual differences and momentary fluctuations in understanding the function. However, this study relied on self-report measures, which may be subject to biases. Future research should consider incorporating psychophysiological measures to provide a more comprehensive understanding of the relationship between RNT and internal experiences.

**Conclusion:** The current findings offer an ecologically valid insight into the influence of worry and rumination on negative emotions and somatic health complaints and highlight possible avenues for future studies.

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## Experiences of the Group Attention Training Technique for Anxiety and Depression in Patients with Coronary Heart Disease: A Qualitative Study

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**Introduction:** Coronary heart disease (CHD) is a leading cause of death worldwide. Clinically significant symptoms of anxiety and depression are highly prevalent among CHD patients and associated with increased risk of further cardiovascular events, prevalence of cardiovascular risk factors and healthcare costs and reduced quality of life and treatment adherence. Therefore, effective treatment of such symptoms in CHD is necessary. To date, psychological treatment approaches for these symptoms have produced limited effectiveness. Metacognitive therapy (MCT) has recently been shown to be effective in individual and groups formats in CHD patients. One component of MCT, the attention training technique (ATT), has been shown to be feasible and potentially effective in addressing symptoms of anxiety and depression in CHD patients. However, the experiences of CHD patients receiving group ATT is not known. This study aimed to investigate these experiences.

**Methods:** Ten patients who participated in an ongoing randomised controlled trial comparing group ATT versus wait list control consented to participate in this study. The group ATT treatment consisted of six weekly group sessions of 45 to 90 minutes duration. Patients included nine men and one woman aged 45 to 64 years. Patients met inclusion criteria including established CHD and a Hospital Anxiety and Depression score of  $\geq 8$  on anxiety and/or depression. Patients were interviewed with a pre-defined interview guide by an experienced clinician who received supervision from an experienced clinician/researcher with training in MCT. Interviews were conducted 3 months following group ATT and their duration ranged from 30 to 70 minutes. These interviews were analysed using thematic analysis according to Braun & Clarke (2006).

**Results:** Preliminary analyses revealed the following main themes and subthemes: experiencing improvements (anxiety, depression, sleep); subthemes: specific treatment factors (e.g. changing relationship to negative thoughts and thinking modes); nonspecific treatment factors (e.g. group dynamics and meeting others with similar challenges); individual factors (e.g. practicing homework); and therapist factors (e.g. repeated rationale for ATT) and better sleep.

**Discussion:** Patients engaged with the ATT-technique and benefitted from it, despite some of them appearing sceptical in using ATT prior to treatment, but most lacked any specific treatment expectations. Moreover, whilst most of the patients understood ATT as a means of training their ability to change thinking modes, some did not seem to gain the same level of insight relating to its potential mechanisms. Interestingly, even though we did not specifically ask any questions relating to their sleep, this subtheme spontaneously emerged. This is in line with recent research showing the high prevalence of insomnia in CHD patients and its cardiovascular consequences. Finally, all of the patients found that ATT delivered in a group format was a positive experience in helping them to realise the "universality" of problems.

**Conclusion:** In general, most patients' experiences of group ATT were helpful and unlikely to lead to any treatment interference or poor treatment engagement. Patients' experiences are consistent with the rationale and goals of ATT and also highlight the need to target sleep complaints more often during treatment of anxiety and depression in CHD.

## Personality Beliefs and Preoperational Thinking

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**Introduction:** It has been suggested by various cognitive behavioral theorists that the perceptual and cognitive characteristics of the pre-operational cognitive stage, defined by Piaget as the second stage of cognitive development, are manifested in various personality disorders, especially chronic depression and borderline personality disorder (McCullough, 2003; Leahy, 1995). CBASP, developed by American psychologist James P. McCullough Jr. for chronic depression treatment, proposes that individuals with chronic depression have a thinking structure that is fixed in Piaget's pre-operational cognitive developmental stages (McCullough, 2003). CBASP asserts that challenging environmental conditions experienced during early development disrupt or delay normal emotional-cognitive development in individuals. This fixation is rooted in similarities between the thought structures of chronically depressed individuals and pre-processing children (McCullough, 2003). According to the theory, individuals with chronic depression, much like children in the pre-processing stage, are unable to form logical reasoning, tend to think in an egocentric manner, utilize language primarily in a monological form, lack empathy, and struggle with emotional regulation when under stress. We have therefore assumed that general psychiatric symptoms and personality traits could also be associated with cognitive developmental level and especially with the preoperational thinking. So, in this study, we aimed to examine the relationship between cognitive developmental level, preoperational thinking and personality features and psychiatric symptoms.

**Method:** 61 (37 female, 24 male) psychiatric outpatients between the ages of 16-71 recruited for the study. Mean age of study group was 34.18 (SD 11.55) and mean of length of education in years was 15.07 (SD 2.47). Personality dimensions were assessed short form of Personality Belief Questionnaire Short Form (PBQ-SF), Preoperational thinking was assessed with the Luebeck Questionnaire for Recording Preoperational Thinking scale.

**Results:** Luebeck Scale scores were negatively and significantly correlated with all sub-scales of the PBQ-SF ( $p < 0.05$ ) except schizoid subscale of PBQ-S ( $p < 0.454$ ). The most strong significant negative correlation was found in between Luebeck Questionnaire for Recording Preoperational Thinking scale and the histrionic subscale of PBQ SF ( $r = -0.646$ ;  $p < 0.000$ ). The other correlations are in order as follows: PBQ SF Dependent subscale ( $r = -0.621$ ;  $p < 0.000$ ), PBQ SF Borderline subscale ( $r = -0.572$ ;  $p < 0.001$ ), PBQ SF Avoidant subscale ( $r = -0.563$ ;  $p < 0.000$ ), PBQ SF paranoid subscale ( $r = -0.562$ ;  $p < 0.001$ ), PBQ SF obsessive compulsive subscale ( $r = -0.456$ ;  $p < 0.007$ ), PBQ SF narcissistic subscale ( $r = -0.416$ ;  $p < 0.012$ ). According to the Logistic regression analysis, pre-operational thinking style is not explained by any personality dimension, but all of the negative personality beliefs are related to preoperational thinking style ( $F(3,982)$ ,  $p < 0.006$ ).

**Discussion:** Although various theorists have suggested that preoperational thinking is related to psychopathology, there are few empirical studies on this subject. Previously, it has been shown that the preoperational thinking style measured by the Luebeck scale is correlated with personality beliefs measured by the PBQ in a group without any psychological disorder. In the present study, we found

that the same correlation was stronger in the clinical group. The higher the preoperational thought style, the higher the likelihood of having negative personality-related beliefs.

**Conclusion:** The findings of our study support the view that preoperational thinking in the field of social relations is associated with personality disorders. It can be thought that addressing and transforming this type of thinking, which seems to be an important factor in the development of psychopathology, in psychotherapy will provide an important perspective in psychotherapy.

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## Examining the Role of Early Maladaptive Schemas in Relationship Satisfaction and Quality of Sexual Life

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**Introduction:** Early maladaptive schemas are formed as a result of negative experiences and relationships with parents in the early period and with peers in the later periods (1). Since the first interaction occurs between parent and child, family constitutes the first origin of schemas (2). Relationships with peers during the development process are also very important for early maladaptive schemas. During adolescence, relationships with the opposite sex become more frequent and affect individuals' evaluations of romantic relationships (3). It is emphasized that schemas containing these evaluations lead to difficulties in relationships in adulthood and that these difficulties lead to a decrease in romantic relationship satisfaction (4). For example, it is stated that emotional deprivation schemas negatively affect individuals' capacities for closeness, love and acceptance in their close relationships (5). Satisfaction in romantic relationships is also related to the quality of sexual life. Quality of sexual life is related to dyadic harmony, marital harmony and quality of life (6). Early maladaptive schemas may also predispose individuals to sexual problems. An individual's subjective evaluation of positive or negative situations related to his sexual life forms the framework of sexual life satisfaction. It can be said that early maladaptive schemas have an impact on relationship satisfaction and sexual life quality. Accordingly, in this study, we aimed to examine the role of early maladaptive schemas in relationship satisfaction and sexual quality of life.

**Method:** The sample of the study consists of 384 adult individuals over the age of 18 (226 women, 122 men). The Young Schema Scale (YSS)- Short Form - 3 was used to assess early maladaptive schemas. To evaluate the quality of sexual life, the Sexual Quality of Life Scale - Female (CYKÖ-K) and Sexual Quality of Life Scale - Male (CYKÖ-E) forms were used. The Relationship Satisfaction Scale was used to evaluate the participants' relationship satisfaction. Multiple regression analysis was used to evaluate predictive variables.

**Results:** The results of the descriptive statistical analysis regarding the demographic information of the participants are shown in Table 1. According to the results of the correlation analysis examining the relationship between maladaptive schemas and sexual quality of life and relationship satisfaction, it was found that early maladaptive schemas were generally negatively related to relationship satisfaction and sexual life quality (Table 2). Multivariate regression analysis was performed to determine the predictive level of YSS-subcales on Relationship Satisfaction (Table 3.). As a result of the analysis, early maladaptive schemas explained 21% of the variance in relationship satisfaction ( $R^2=0.21$ ). Emotional Deprivation ( $\beta=-.248$ ;  $t(333)=-4.025$ ;  $p<.001$ ;  $pr^2=.046$ ), Pessimism ( $\beta=.194$ ;  $t(333)=2.595$ ;  $p<.05$ ;  $pr^2=.020$ ), Approval Seeking ( $\beta=.135$ ;  $t(333)=2.198$ ;  $p<.05$ ;  $pr^2=.014$ ) and Internal Involvement/Dependency ( $\beta=-.248$ ;  $t(333)=-3.311$ ;  $p<.01$ ;  $pr^2=.32$ ) significantly predicts Relationship Satisfaction. As a result of the multivariate regression analysis carried out to determine the predictive level of sexual life quality of YSS sub-dimensions the model was found to be significant ( $F(14,333)=8.509$ ;  $p<.001$ ). and 26% of the variance in sexual life quality ( $R^2=.263$ ) was determined by the independent variables was found to be explained. Emotional Deprivation ( $\beta=-.189$ ;  $t(333)=-3.17$ ;  $p<.01$ ;  $pr^2=.029$ ) and Enmeshment/Dependency ( $\beta=-.177$ ;  $t(333)=-2.436$ ;  $p<.05$ ;  $pr^2=.016$ ) significantly predicts the quality of sexual life (Table 4.).