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Editorial

PSYCHIATRY IN THE BIO-PSYCHO-SOCIAL RESEARCH PARADIGM AS OPTION FOR ENDURING AND SUSTAINABLE CHANGE IN A TIME OF CHRONIC CRISIS

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Summary

Background: *The prevalence of mental disorders and global burden of disease increases and need an integrated psychiatric treatment at the best point of service. Severe mental disorders have medical consequences and solid psychiatric interventions are necessary. Research is required to be conducted along the bio-psycho-social paradigm.*

Aim: *Based on the dynamics of memory and mentalization theory this paper presents clinical and therapeutic considerations for change.*

Results: *Mentalization is influenced by patterns of parental rearing styles, attachment, and traumatic incidents. In psychoanalytic theory, unconscious memory contents are enacted in the patient-therapist relationship. This editorial gives a review and intends to bridge the gap between psychiatry, the neurosciences, psychoanalysis and other sciences concerned with the study and processing of memory and its associated psychological, cognitive, and affective functions. The role of memory and related abilities and factors affecting psychological functioning are outlined. Research findings on memory dynamics and vulnerability as well as insights that are relevant to bridge the gap to related sciences are highlighted.*

Conclusions: *For treatment, a dynamic view of long-term memory with a plasticity of states of memories when they are reactivated is supported. For intervention technique, affect-related therapist-centered interpretations and a sound working through of such enacted states in the interpersonal environment of the treatment is essential.*

Keywords: *memory, vulnerability, self-definition, brain plasticity, psychodynamic intervention.*

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INTRODUCTION

According to current studies (Wancata 2017, OECD 2020, Rieß & Löffler-Stastka 2022), 40% of the population suffer from mental illness at least once in their livetime. In particular, anxiety/depression, addiction, depression and somatization disorders are to be mentioned. Mental disorders such as anxiety, affective disorders including depression, or somatic stress disorders have outperformed the somatic diseases in the ranking of the most frequent illnesses and the most common clinical complaints in Austria (cf. Löffler-Stastka & Hochgerner 2021, Statistics Austria 2020, Wancata 2017). A survey on the prevalence and care of mental illness in Austria (Wancata 2017) on a representative sample from the Austrian population showed a 1-year prevalence of approximately 23,8% of mental illnesses (collected by means of the "Present State Examination PSE-10" of the "Schedules for Clinical Assessment in Neuropsychiatry SCAN" for psychiatric case identification). The examination of the need showed that, according to the clinical assessment of the investigators, about 14% of the population is in need of psychotherapy and should be provided with psychotherapy (Wancata 2017; see also Löffler-Stastka and Hochgerner 2021). 13.8% are registered as ill in the current care system. 6.9% of the population, or 50% of those registered ill, could be motivated to receive psychotherapeutic treatment (Wancata 2017). Through current care services, only half (3.8%) of those affected currently receive psychotherapeutic treatment, about 1,5% provided by medical doctors and specialists for psychotherapeutic medicine, 1,5% provided by psychotherapists (Löffler-Stastka and Hochgerner 2021).

The OECD and the European Commission estimate the (consequential) costs of mental illnesses for the year 2019 with 4.3% of the gross domestic product. In addition to this financial burden to the national economy, they also emphasize extremely high individual and family mental burdens (Global Burden of disease, cf. OECD 2020 [2015]; GBD 2019 Mental Disorders.Collaborators

2022; ACA 2019; Nübling et al.2014; Statistics Austria 2020; Wancata 2017).

The burden is expected to increase by another 20% due to COVID-19 sequelae (Pietrabissa et al. 2021, Löffler-Stastka & Pietrzak-Franger 2022). The question is, how to minimize this development?

The aim of this editorial is to focus the recognition and understanding of bio-psycho-social interrelationships, the respective clarification of the theoretical frame of reference, the application to concrete cases or problems, and to elaborate on the gains of current process-outcome research. Reflection and evaluation of the process and the results is focussed in order to provide possible direction towards further research in human-centered, individualized treatment research.

STRAIN, STRESS AND DEPRESSION ARE A CONTINUUM

In the normal resting state multiple feedback loops among the prefrontal cortex, the amygdalae, the locus ceruleus and the norepinephrin system and hypothalamus function adequately within stimulatory effects and inhibitory ones in an equilibrium. The prefrontal cortex restrains the amygdalae and the amygdalae restrains the prefrontal cortex. If the prefrontal cortex becomes hypoactive (as e.g. in depression/melancholia), the amygdala activity increases and further restrains the subgenual prefrontal cortex. The amygdala stimulates the locus ceruleus–norepinephrine system and the CRH/HPA axis. These, in turn, stimulate the amygdala and another positive feedback loop is initiated. The amygdala activity further restrains the subgenual prefrontal cortex. An activated locus ceruleus–norepinephrine system and CRH/HPA axis both inhibit the subgenual prefrontal cortex, further exacerbating multiple other positive feedback loops. The locus ceruleus–norepinephrine system and the CRH/HPA axis stimulate one another. They activate the amygdala and inhibit the subgenual prefrontal cortex. These multiple feedback loops highlight the extent to which evolution has invested in being able to generate an extremely powerful stress response.

THE CONSEQUENCES OF DEPRESSIVE ILLNESSES

The medical consequences of depression can be far-reaching, as the CRH stimulates the sympathic system towards a release of norepinephrin into the circulation in general. Norepinephrine mediates a number of other responses. Norepinephrine stimulates CRH, IL-6 and the acute-phase proteins and stress response. The acute-phase response, more than 20 proteins, modulate inflammation and lead to a mild prothrombotic state. CRP and fibrinogen as acute-phase reactants increase in depression. Cortisol and norepinephrine lead to insulin resistance and mild hyperinsulinism. Insulin stimulates the sympathic system and is proinflammatory. Cortisol promotes the enlargement of the visceral fat mass, which contains a host of proinflammatory cytokines such as IL-6 and TNF-a. IL-6 correlates positively with BMI so that BMI matching is important in clinical studies to control for the impact of cytokines. Increased visceral fat has a large role in obese patients in contributing to the metabolic syndrome. Patients with depression can have an increased visceral fat mass with a perfectly normal BMI because of the impact of cortisol on visceral fat. The collective impact of neuroendocrine, proinflammatory and prothrombotic processes that occur during a normal stress response can, when exaggerated in depression, result in premature coronary disease, stroke, type 2 diabetes and osteoporosis. These are preventable, and clinicians should check carefully for these parameter in their depressed patients. There are multiple positive feedback loops in this circuit that amplify its overall intensity. There are also multiple stimuli to specific physiologic responses. For instance, IL-6, the acute-phase response, hyperinsulinism, increased visceral fat mass and low plasma cortisol levels, all promote an inflammatory response (Gold 2015).

BEWARE OF THE CONTINUUM IN HEALTH AND DISEASE AND THE SOMATO-PSYCHIC INTERRELATIONS

As all these mechanisms develop alongside a continuum between health and disease, and therefore also the **role of personality** has to be taken into account. The ICD-11 and DSM5 provide a possibility to evaluate personality functioning (Löffler-Stastka et al. 2023). The investigation of personality functioning, especially the severity of impairment of self- and interpersonal functioning includes the investigation of memory contents. **Memories** are vulnerable at the time of consolidation and retrieval (Phelps & Hofmann 2019). In psychoanalytic theory, unconscious memory contents are enacted in the patient-therapist relationship. This is also relevant in somatic diseases and their management concerning diagnostic considerations and also treatment or therapeutic considerations (Turk et al. 2015). Especially, if also family resources or the wider environment are also affected as

e.g. in genetically grounded diseases with potential consequences for mental and psychic development (Milic et al. 2021), and these memory contents have to be considered or even provided with treatment.

THE SENSE OF SELF AND THE ROLE OF MEMORY AND ITS VULNERBILITY AND MALLEABILITY

Techniques for modifying memories are identified for each phase, either the phase of encoding or reactivation. Whether the emotion recalled at retrieval corresponds to the original emotional state is still unclear and is targeted in affect research (Parth et al. 2016, Stastka et al. 2015), and research on microexpressions (Datz et al. 2019).

The **formation of the self** involves unconscious and conscious intrapsychic experience and action and relies on **intersubjectivity** – a realm in which meaning is generated. However, without the function of memory to integrate a multiplicity of experiences, also traumatic ones, the attempt to construct the infant as a subject with a core self from his or her experience would not be feasible. The dynamic interplay of memory retrieval and reconsolidation is addressed in psychoanalysis (Lane 2018). The symbolic history of a subject is, in a psychoanalytic understanding, memory (Lacan 1959-60). Most phenomena in the psyche run unconsciously, according to psychoanalysis. Disorders and missing links in the signifier chain are therefore interesting clues for the psychoanalyst in treating people with mental health problems. Freud proposed that repressed memories cause symptoms, with memories being symbolized events (semantic memory including the association cortex and pre-temporal lobe)(Boremann &Weiler 2020). In the case of traumatic events, a differentiation from repressed contents has been proposed by Ogden (1992): traumatic events are characterized by the lack of experiencing that specific event in the past, when it occurred and by a lacking symbolization (see Künstlicher 2015). Memory is intertwined with the function of development of personality; identification can be considered a form of memory (Pugh 2002). From perception, the subject distills a memory of feelings (Brierley 1937) and forms representations in his psyche (of self and objects together with remembered relations), thus constructing a living inner world that is constantly enriched by new experiences (present cognitive and affective states), but also by re-experiencing (past contents) and by reflecting and fantasizing/dreaming (future/possibilities) (Brierley 1937). All this processing depends also on affect experience and regulation, affecting the procedural memory (Basalganglia-Cerebellum-Cortex) (Boremann &Weiler 2020). Recurrent patterns at the moment of interaction lead to experiences, and in cyclical interaction patterns of relationships memory can be changed on the implicit level (Scully et al. 2017) and cured.

A secure attachment is essential for robust mentalization capabilities and personality functioning. For treatment, a dynamic view of long-term memory (procedural memory, Bormann) with a plasticity of states of memories when they are reactivated is supported (Scully et al. 2017). For intervention technique, therapist-centered interpretations and a sound working through of such enacted states (episodic memory including the hippocampal formation, the limbic system and the cortex) in the interpersonal environment of the treatment is essential.

Based on the dynamics of memory clinical and therapeutic considerations for change have to be considered. The focus should be set on different attachment and trauma related constructs in order to explore etiological and possible resilient factors on the course of an illness.

What is clear for clinical work should further be elaborated **for research** endevours in order to **bridge the gap between neuroscientific approaches and the psychodynamic function of memory**. Considerations on learning processes are necessary:

LEARNING AND THE FREE ENERGY PRINCIPLE

The theory of the free energy principle has become the bridge between mind and brain, thus connecting psychoanalysis with neurosciences (Cieri & Esposito 2019). The **free-energy principle** states that all biological systems aim to minimize the difference between an organism's predictions about its inputs and the sensation it encounters (Friston et al. 2012). In this sense, any storage of knowledge and prior experience can be viewed as an "attempt to reduce surprise", an adaption to the environment (Friston et al. 2012). Nevertheless, surprising, even shocking situations occur all the time. Therefore, regulatory strategies must be developed, continuously adapted, and transformed into new creative approaches. In a sense memory is a dynamic construct and the remembered content depends on individual anticipation of versions of one's future at the moment of remembering (Steinmair et al. 2022). Perception is a function of the models an individual has acquired from and about his or her context and inner/outer world, and thus is in turn based on memory and available (affect regulation) strategies and patterns. Therefore, reconsolidation of memories through reactivation and integration of new experiences has been proposed as a promising therapeutic approach (Rabinovich

Orlandi et al. 2020). Prediction error (i.e., the mismatch between expectation based on experience and actual experiencing/events), had been proposed as a necessary condition for inducing retrieval-induced changes in existing memories (Sevenster et al. 2014).

Social modulation of learning and memory is an area of research in neuroscience, social and behavioral science, resilience research, and psychodynamic theories. However, in the study of socialization effects, genetic and environmental aspects, including their associated effects, must never be neglected.

The socialization of emotions and the ontogeny of emotions are likely to be closely linked; cross-cultural aspects have been illuminated and many questions remain open (Cowen & Keltner 2017, Funk et al. 2012, Lillard 1998, Izard 1994, Meyer et al. 2008). Folk models of personhood, emotion and development vary across cultures and interact with local childrearing practices and applied sanctioning strategies, resulting in a culturally specific emotional repertoire. Interpretation, confrontation and working through expressions of intense socialized negative affect, in particular are highly effective psychotherapeutic interventions (Datz et al. 2019).

The set of strategies that are effective in **(experiental) learning**, seems to be limited across cultures: predispositional priming, consistency of experience, approval/disapproval and as the most effective strategy: operating with high levels of emotional arousal while learning (Funk et al. 2012, Hall et al. 2021). **Socialization of affect and the development of emotional competence** is a bidirectional process that depends on children's affectivity/level of affective arousal and parent's emotionality/reactions to children's expression of affect (Eisenberg et al. 1998). According to the social learning approach, learning takes place in social contexts and is motivated there (Tretter & Löffler-Stastka 2021). Neurobiology has found that the mirror neuron system, which is important for observational and motor learning, is particularly activated in social learning contexts (Reardon 2014, Ertl et al. 2021).

AFFECTIVELY TRIGGERED EXPERIENTIAL LEARNING AND MEMORY

Emotional health depends on affect regulation styles, and preferred styles can discriminate among affectivity groups (Barber et al. 2010). A recent meta-analysis highlighted that in borderline personality disorder the use of emotion regulation strategies effective at reducing negative affect (cognitive reappraisal, problem solving, and acceptance) were used less often, with especially high use of rumination and avoidance (Daros & Williams 2019). For depression a conceptual and meta-analytic review found a relationship between a negative cognitive and affective evaluation of negative emotional experiences (medium to large effect size, see Yoon et al. 2018). In patients with psychotic disorder evidence shows association of maladaptive emotion regulation strategies and positive symptoms. Relevant findings for impaired emotion regulation in psychotic patients were shown for more frequent rumination, self-blaming and distraction (large effect sizes in questionnaire-based cross-sectional data, see Ludwig et al. 2019). Dissociation and emotion regulation were found to be associated, with moderate to large associations with maladaptive emotion regulation strategies (i.e., disengagement from internal and external reality, and aversive cognitive perseveration; see Cavicchioli et al. 2021). Thus, an overmodulation of emotional states was found to be associated with dissociation.

A meta-analytic review focusing on parent-child attachment (i.e., secure, avoidant, ambivalent, disorganized) and implications for children's emotional development found evidence for different affect experience (global positive/negative affect) and regulation/coping styles (e.g., cognitive, and social support strategies) for children with different attachment patterns (Cooke et al. 2019). However, further research should investigate the specificity of findings, effects of context and whether distinct emotion regulation profiles for different mental health conditions can be found/reproduced. Emotion related self-regulation develops in early childhood, with a distinct role of effortful control and individual differences often due to externalizing problems (Eisenberg et al. 2010). A shift from external to internal sources of control and an increase in children's communication and decrease in avoidance along with an increase in the ability of orienting and focusing attention has been found to develop already in the first year of life (Eisenberg et al. 2010). This development occurs along with the development of intentional behavior.

Early childhood impulsivity or lack of inhibitory processes play an important role in the development of later psychopathology (e.g., ADHD, conduct disorder), in engagement in risky behaviors, and in social and learning development (see Graziano et al. 2010). Regulation of impulsive responses in favor of goal-directed behaviors can lead to reactive or effortful over- and/or under-control and can impede self-regulation in one way or another. The effects of educational and environmental factors as well as genetics have been studied, but many questions remain unanswered (Graziano et al. 2010).

In healthy subjects, a bias has been found toward more positive self-images relevant to shaping self-esteem (Conway et al. 2000, 2004, Hitchcock et al. 2017, 2020). This bias is also found in the cognitive processes relevant to the storage and retrieval of autobiographical memory. This has been described as the "fading affect bias," which describes the phenomenon that emotions associated with positive memories are generally better retained (Walker et al. 2003a), a capacity associated with well-being. Thus, memories with positive valence tend to be more vivid, detailed, and sensory than negative memories (Matt et al. 1992, D'Argembeau et al. 2003).

BUT HOW ABOUT DISTRESSING MEMORIES?

Coping with distressing memories can be challenging, it involves dealing with the emotions raised by the recall of negatively charged life experiences. The ability to regulate emotion adaptively when reflecting over past autobiographical events or even intrusive memories, involves acknowledging also particularly distressing events as mental events and distancing them from the self (Kross et al. 2005, Ayduk & Kross 2008 Kross & Ayduk 2008). In depression a tendency to self-focused rumination (together with a focus on feeling negative feelings) activates a network of brain regions (including subgenual anterior cingulate cortex and medial prefrontal cortex) similarly involved with self-referential processing and emotion, with higher activation when it is associated with feelings associated with negative affects rather than with the aiming at accepting them (Kross et al. 2009). Under experimental conditions, investigating possible strategies in preventing excessive rumination by training individuals to learn processing of negative emotions without increasing negative affect, was enabled by a 'why' focus from a self-distanced perspective, instead of a 'what' and self-immersed strategy (Kross et al. 2005).

Remembering has been shown to occur in a maladaptive fashion in mood, **anxiety and trauma**, and stress-related disorders (Hitchcock et al. 2017, Dalgleish & Werner-Seidler 2014). Although several memory systems are involved, maladaptive processing of autobiographical memories is particularly disturbed and contributes to persistence of symptoms and might influence on relapse. Depressed subjects were found to have lower affect suppression for both negative and positive memories (Marsh et al. 2019). Furthermore, depressive symptoms were associated with lower affect blanking for negative versus positive memories (Marsh et al. 2019), along with a tendency to think about negative events/memories more frequently (mood-congruent retrieval; Matt et al. 1992).

In mood and in stress related disorders recall of autobiographic memory is conducted more abstractly and shows overgeneralizations; categories of events are summarized instead of retrieval of single episodes (Williams et al. 2007). Existing evidence showed an association of overgeneralizations with impaired problem solving, disturbances in the imagination of future events, and delayed from episodes of affective disorders (see Williams et al. 1996, 2007). Conway & Pleydell-Pearce hypothesized how and why this overgeneralization might arise (Conway & Pleydell-Pearce 2000). In the case of traumatized persons, a conscious experience-near recall of memories (including sensory-perceptual and affective features) goes with high attention for these contents- therefore reentry of memories into consciousness must be controlled, especially when goal pursuit could be impaired by such contents. Memories have a function to ensure self-coherence and in stabilizing beliefs about oneself, to ensure the orientation in the world, and to remain oriented towards one's goals, especially with regard to interpersonal goals. Contents not favorable to this function (i.e., adversity and trauma) are avoided by conscious and unconscious retrieval strategies with the aim to avoid (short-term) affective disturbances (functional avoidance, see Williams et al. 2007). Associated with this overgeneralization at retrieval is also a failure at the time of memory encoding (i.e., lacking linkage of new contents to stored self/other representations) because of avoidance of affective disturbances, with a more abstract encoding of events, potentially even in an inaccessible form (Conway & Pleydell-Pearce 2000).

However, deficits in the amount new contents can be acquired are also associated with these disorders. At higher depressive or anxious levels also retrieval of new information is impaired. For example, regarding social anxiety previous evidence suggested, that it could bias event recall, with a shift to recall negative memories with rumination reducing memory specificity (Hallford & Mellor 2017, Glazier & Alden 2017, Ricarte et al. 2016, see Marsh et al. 2019). For a review of the current literature sustaining the efficacy of autobiographical episodic training see Hitchcock (Hitchcock et al. 2017).

Good to know about the **dynamics of memory** and **trends towards mental health –** the role of the development of **mentalized affectivity**

For mental health disorders associated with stress and disturbances in memorizing or dealing with memories, one could postulate a disturbance in the ability of protecting the organism from distressing memory contents and (or due to) difficulties in dealing with associated

emotions/affects/valences of experiences.The ability to suppress unwanted memories varies from individual to individual. Performance is particularly low in individuals suffering from PTSD and those with increased anxiety, rumination, and disruptive memory intrusions (Phelps et al. 2019). Several psychiatric disorders are now thought to be associated with maladaptive memories and disruptions in related cognitive processes, including affect regulation.

Early psychoanalysis assumed permanent and complete storage of an individual's past in his or her memory (Phelps et al. 2019, Freud 1904), with a **sophisticated mental apparatus** determining whether content can become conscious. The evidence to date does not support the view that all memories are permanent and potentially recoverable, nor does it really explain under what circumstances content becomes irrevocable (Loftus & Loftus 1980). In the psychoanalytic therapy, earlier psychological experiences, which are not remembered (as past), become alive again as a current relationship to the person of the therapist (a form of memory, see Loewald 1986). The re-experiencing of old feelings, which applied to internalized objects, with a new object (the analyst), allows a modification of the originally internalized objects. Thus, **examining the cognitive processes and patterns of affect experience and affect regulation** that facilitate the formation of distorted or suppressed memory content over the course of an individual's life is part of psychoanalytic research. The effects of early social interactions and the resulting attachment styles on the formation of these styles have been extensively studied. Adult attachment patterns and related mental processes result from previous experiences in relationships, but also from contexts. Attachment security goes along with better emotion regulation, especially in threatening conditions (e.g., activation of attachment-related mental representations, support seeking; see (Mikulincer & Shaver 2008).

CONSIDER THE CONSOLIDATION DURING SLEEP – DREAMING AND MEMORY

Negative emotions are more frequent in dreams, and it has been theorized that dreams might function as a problem-solving strategy using emotional coping strategies (better assimilation of emotional contents in existing memories; see Scarpelli et al. 2019). For example, the extent of nocturnal reduction in depressed mood following REM sleep interruption has been shown to be important for remission of untreated depression (Cartwright et al. 2003). However, very little evidence exists on a memory function of REM-dreaming.

The role of dreaming in emotional processes has been discussed since Freud (Freud, 1900a). Dreaming can occur during REM and during NREM sleep (Scarpelli et al. 2019, Pivik & Foulkes 1968, Stickgold et al. 2001). However, emotionally vivid, and more sensory dream contents are more likely to occur during REM sleep. Existing evidence suggests that REM sleep is crucial in the consolidation of especially highly emotional memories, associative learning, and offline reprocessing of emotions (Scarpelli et al. 2019, Lara-Carrasco et al. 2009, Nishida et al. 2009, Spoormaker et al. 2014, Desseilles et al. 2011). REM-sleep abnormalities have been found in psychiatric disorders, particularly mood disorders (Marinova 2014).

Nevertheless, previous evidence suggests that consolidation of memories is better during sleep than while awake (repeated reactivation of memory representations, integration with encoding and retrieval processes), with sleep benefiting declarative as well as procedural memory (Newbury & Monaghan 2019, Walker et al. 2003b, Rasch et al. 2007, Rasch & Born 2013, Lewis & Durrant 2011). Sleep seems to impact on memorization of experienced events as well as on the formation of false memories (Roediger & McDermott 1995). Sleep's impact on the formation of false memories seems to be task dependent (Newbury & Monaghan 2019). For procedural learning, sleep-dependent learning has been found to show a correlation with the amount of slow-wave sleep early in the night and the amount of REM sleep late in the night, this is especially true for the first night after training, but additional nights of sleep offer further improvement (Stickgold et al. 2000; Walker et al. 2003b).

HEADING TOWARDS MENTAL HEALTH AND MENTALIZED AFFECTIVITY

Mature mental functioning is formed in its basis in the first years of life, but continues to develop and change throughout life, affecting personality and mental health (Blum 1985). The development of the mature mental functioning depends on the development of the ego, intentionality, the ability to communicate, and mobility (Blum & Blum 1990). In normal development, identification and internalization of both parental rules and regulations and reassuring positive attitudes and intentions (e.g., approval) of caregivers occur in a balanced manner. Because the infant's perceptions are distorted by his drives and defenses and his ego is not yet mature, reality and internalized identifications are not identical (Blum & Blum 1990).

Mature mental functioning includes the capacity for self-criticism, guilt, and remorse-necessary for interaction with the world, perception, and processing and evaluation of new and past events/stimuli, and thus particularly relevant for imprinting affectively charged content. In the case of a punitive, sadistic superego (arising from identification with an aggressor; see Blum 1985), unconscious attitudes toward self and others are dominated by shame and guilt, leading to an experience of intense negative affect without internal resources to modulate the fear that arises. As this intense affects are difficult to contain, again defenses and affect regulation strategies need to be organized accordingly – leading to splitting, projections/ projective identifications.

THERAPEUTIC MODIFICATION

Reconsolidating interfering strategies aim to weaken or overwrite already consolidated memories by altering them when memories become vulnerable during retrieval (compare mentalized affectivity and see also Löffler-Stastka & Steinmair 2021). Therefore, a dynamic view of long-term memory with plasticistic states of memories as they are reactivated is supported by current evidence (Scully et. al., 2017). Consistency in memory has been shown to be poorer for emotional responses than for other content (e.g., episodic details) (Phelps et al. 2019). Therefore, altering the "feelings of memories" by affecting affect regulation skills has been suggested as a possible treatment target (Kross 2009; Phelps et al. 2019). This is particularly true for depressed, anxious, or traumatized individuals who do not lack the basic ability to regulate their negative emotions, but who exhibit problematic patterns in retrieving autobiographical memories (Doré et al. 2018) or show problems in the manner and consistency of regulating negative affect.

Empirical evidence for the effectiveness of long-term psychodynamic psychotherapy (LTPP) in patients with mood disorders is growing. The effectiveness of LTPP is due to distinctive features of psychodynamic/psychoanalytic techniques. Zimmermann and Löffler-Stastka (2015) investigated psychoanalytic techniques in a large study where the intervention techniques were assessed from three audiotaped middle sessions per treatment using the Psychotherapy Process Q-Set. Subjects receiving psychoanalytic therapy reported having fewer interpersonal problems, treated themselves in a more affiliative way directly after treatment and tended to improve in depressive symptoms and interpersonal problems during follow-up as compared with patients receiving psychodynamic therapy and/or CBT. We also found some evidence for indirect treatment effects via psychoanalytic techniques on changes in introject affiliation during follow-up. These results provided support for the prediction that both a high dose and the application of psychoanalytic techniques facilitate therapeutic change in patients with major depression. On the PQS item level the following interventions were predictive for good outcome: Three PQS items describing typical features of psychoanalytic therapies predicted symptom reduction after therapy. They referred to discussing sexual feelings and experiences (Item 11), patients' dreams or fantasies (Item 90), and memories or reconstructions from infancy and childhood (Item 91).

IMPLICIT KNOWLEDGE IS THE BASE OF THERAPEUTIC COMPETENCE TO PROVIDE EFFECTIVE TREATMENT

Behavioural pattern are sometimes difficult to be modified in mental disorders, especially if e.g., cyclic maladaptive patterns, a core conflict, or "repetition compulsion" dominate. But it is also known, that affect expression systems are involuntarily effective in the intersubjective field, and also the association with mentalizing ability is known, as well as that difficult patterns are socially transmitted. Therefore affect-related interventions are essential mediators towards treatment success. If the subliminal affective relationship pattern can be formulated along affective interaction pattern working alliance is better (Datz 2019). As relational patterns and relational knowledge are implicit knowledge (Balint, 1957; Stern, D.; 2004; Safran & Muran, 2012), the "embodied knowledge" has to be addressed (compare Steinmair, Wong & Löffler-Stastka 2021).

In this context the practical relevance of the question concerning their mentalization ability – Reflective functioning also for therapists is of relevance. It can be trained and depends also on the facilitating environment (Steinmair, Richter & Löffler-Stastka 2020). This is important for all professionals in the psychosocial field (Löffler, Preusche 2017).

CONCLUSION

An easily interprofessional trainable mentalizing conversation at the basis can provide immediate intervention effectiveness and therapy adherence. Going further into affect-related interventions in the continuous interpersonal relationship sustainable change effectiveness can be achieved and change processes get started – on the individual, interpersonal and societal level. All research and training efforts addressing this focus are highly necessary, appreciated and very welcome!

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