DOI: 10.26387/bpa.290.2

Metacognitive reflection and insight therapy: Introduction and overview

Paul H Lysaker[1,2], Reid Klion[3], Courtney Wiesepape[4], Aubrie Musselman[4], Ilanit Hasson-Ohayon[5]

[1] Ph.D. Richard L Roudebush VA Medical Center, Indianapolis IN USA
[2] Ph.D. Indiana University School of Medicine, Indianapolis IN USA
[3] Ph.D. MERIT Institute, Boulder CO USA
[4] MS Indiana State University, Terra Haute IN USA
[5] Ph.D. Bar Ilan University, Ramat-Gan, Israel

plysaker@iupui.edu

ABSTRACT. L'esperienza della psicosi spesso implica cambiamenti sottili ma pervasivi nel modo in cui le persone sperimentano se stesse e il mondo. Dall'altro lato della medaglia, possiamo riconoscere come le persone guariscono dalla psicosi e questi sottili cambiamenti vengono invertiti. *La metacognitive reflection and insight therapy* (MERIT) rappresenta un tentativo di sviluppare una terapia orientata al recovery sensibile a questo tipo di cambiamenti nell'esperienza che le persone hanno di se stesse e del mondo. La MERIT cerca di promuovere la capacità metacognitiva o la capacità di formare idee integrate di sé e degli altri, consentendo così alle persone con diagnosi di psicosi di formulare idee coerenti sulle loro sfide psicologiche e di decidere come vogliono affrontarle. Al fine di stimolare la discussione e il dibattito su questa terapia e simili forme di trattamento, questo articolo esplorerà la formulazione teorica e l'assessment della metacognizione alla base della MERIT, e come la metacognizione sia stata studiata nella psicosi. Discuteremo poi gli sviluppi della MERIT, insieme ai moduli che la definiscono nonché i punti di convergenza e divergenza rispetto ad altre terapie spesso proposte a persone con diagnosi di psicosi. Infine, verranno discussi i limiti e le direzioni future.

SUMMARY. The experience of psychosis often involves subtle but pervasive changes in how persons experience themselves and the world. On the other side of the coin, persons also recover from psychosis and these subtle changes are reversed. Metacognitive reflection and insight therapy (MERIT) is an example of one attempt to develop a recovery oriented therapy sensitive to these kinds of changes in persons' experience of themselves and the world. MERIT seeks to promote metacognitive capacity or the ability to form integrated ideas of the self and others, thereby allowing persons diagnosed with psychosis to form coherent ideas about their mental health challenges and to decide how they want to manage them. To spur discussion and debate regarding this and related forms of treatment, this paper will explore the concept of metacognition and its measurement which underlies MERIT, and how metacognition has been studied in psychosis. We will then discuss the development of MERIT, along with its defining elements and points of convergence and divergence from other therapies often offered to persons diagnosed with psychosis. Finally, limitations and future directions will be presented.

Keywords: *Psychotherapy, Psychosis, Recovery, Metacognition, Social cognition, Schizophrenia, Intersubjectivity*

INTRODUCTION

The experience and course of psychosis has long defied simple characterization. More than a matter of psychiatric symptoms in need of medical management, or skills deficits to be remediated, psychosis involves a profound psychological alteration in how people experience and understand themselves, others, and the world around them (Kukla & Lysaker, 2020; Lysaker & Lysaker, 2010, 2020). These disruptions in how persons experience themselves and others may be so severe that persons with psychosis may no longer experience themselves as meaningfully connected to others or their communities (Davidson, 2003; Firmin, Zalzala, Hamm, Luther & Lysaker, 2021). Persons with psychosis may also lose a previous sense of a coherent and integrated sense of their identity (McCarthy-Jones, Marriott, Knowles, Rowse & Thompson, 2015). This is to say that persons with psychosis may experience their thoughts, feelings, bodily states and actions as increasingly fragmented or unrelated to one another, leaving the person with a reduced sense of agency and purpose. However, despite these challenges, it has been found that many people with psychosis can make considerable improvements in their lives and make significant progress toward recovery (Leonhardt et al., 2017). Not only does this literature supporting the existence of recovery contradict the expectation that psychosis necessarily follows a course of continuous deterioration, it importantly raises the question of which type of interventions can be applied to facilitate the process of recovery.

A focus on self-experience and an orientation toward recovery are not commonly part of contemporary mainstream thinking about psychosis. As a result, the concern with these issues has challenged us to think differently about psychosis and how it might optimally be treated (Hamm, Rutherford, Wiesepape & Lysaker, 2020; Korsbek, 2013; Moncrieff, 2015). Metacognitive reflection and insight therapy (MERIT; Lysaker & Klion, 2017) is an individual psychotherapy for persons with psychosis that grew out of these efforts to help persons experiencing psychosis to better understand themselves, their condition, and to best facilitate the process of helping them to improve the course of their lives. To spur discussion and debate regarding this and related forms of treatment, this paper will present the basic concept of metacognition which underlies MERIT, how MERIT measures and responds to deficits in metacognition, and how metacognition has been studied in psychosis. We will then discuss the development of MERIT, along with its defining elements and points of convergence and divergence from other therapies often offered to persons diagnosed with psychosis. Finally, limitations and future directions are presented.

MERIT AND METACOGNITION

MERIT is rooted in the concept of metacognition, the process of thinking about, monitoring, and adjusting one's own thoughts and internal states (Flavell, 1979; Moritz & Lysaker, 2018). Metacognition includes specific experiences (e.g., having a sensation of tension in one's forehead or being aware of feeling sad or happy about a certain thing) as well as how these experiences may be related to one another. As we form larger ideas about who we are in the world and who others are, we do so by assembling or synthesizing information. To have a broader sense of oneself or others is to have a feeling for how these bits of experience, such as individual thoughts, feelings and embodied experiences, can be integrated to make up a larger whole, something greater than the sum of its parts. In turn, these experiences can be woven together over time and understood to be related to similar patterns throughout one's life, enabling persons to have a holistic picture of themselves as a unique being in the world (Lysaker, Gagen et al., 2020). With significantly impaired metacognitive capacity, however, the experience of self and others can be said to be fragmented or left as individual pieces of experiences which cannot be fit together to create a broader sense of self.

From this perspective, metacognition is also more than a set of cognitive process. It is by nature an intersubjective human activity. Intersubjectivity refers to interactions which take place between persons (Beebe, Knoblauch, Rustin & Sorter, 2005; Cortina & Liotti, 2010) that facilitate the shared understanding of emotional, cognitive and embodied experiences (Stern, 2000). Intersubjectivity allows persons to immediately form a holistic sense of other persons and oneself. This is to say intersubjectivity allows people to understand one another as more than a collection of unrelated attributes or states (Lysaker et al., 2021). Intersubjectivity is thought to develop early in life with the emergence of a preverbal subjective sense of self and other, the caregiver (Stern, 2000). It matures alongside language and becomes the basis for the ability to describe and reflect upon the experience of oneself and others (Cortina & Liotti, 2010). To say that metacognition is always intersubjective in

nature is to say that the ideas persons form about themselves and others are always being created with someone who is either present or who could be imagined and react to those ideas (Hasson-Ohayon et al., 2020).

Measuring metacognition: MAS-A

MERIT is also concerned with the empirical assessment of metacognitive process. In MERIT the empirical assessment of metacognition is not only an important tool for researchers, but also a critical tool for clinicians that allows them to use interventions that will be optimally beneficial to the patient at any given time according to that patient's capacity for metacognition. In order to meet this need, an assessment tool was developed called the *Metacognition Assessment Scale – Abbreviated* (*MAS-A*; Cheli, Enzo, Chiarello & Cavalletti, 2021; Lysaker, Minor et al., 2020). The MAS-A is comprised of four rating scales corresponding with Semerari et al.'s (2003) seminal work in the area: Self-reflectivity (S), Understanding of Others (O), Decentration (D) or the awareness of one's place in the broad social world or community, and Mastery (M) or the ability to recognize and respond to opportunities and challenges using metacognitive knowledge. Items on each scale are anchored with the metacognitive act reflecting that level of metacognition and arranged sequentially by level of complexity. As a result, the MAS-A is designed so that each item describes a metacognitive activity that requires greater levels of metacognitive capacity to perform the act than was required by the item below it. Psychometric information can be found in Lysaker, Minor et al. (2020) and scoring guides are available at www.meritinstitute.org.

Metacognition and psychosis

Applied to the study of psychosis, it has been suggested that deficits in metacognition, or the ability to integrate information into a flexible sense of self and others, can result in a fragmented sense of self and a tenuous sense of connection with the world resulting in a range of objective as well as subjective features of psychosis (Lysaker, Minor et al., 2020). With a complex etiology and multiple contributory factors, these metacognitive deficits have been proposed to be part of an interacting network of key features of psychosis, including symptoms, neurocognition and social cognition (Buck, Gagen, Luther, Kukla & Lysaker, 2020; Hasson-Ohayon, Goldzweig, Lavie, Luther & Lysaker, 2018), which reduce any sense persons may have of their purpose in life, future possibilities, or their place and position amongst their families, peers, institutions and broader communities (Lysaker & Lysaker, 2017, 2020).

Research supporting these assertions includes findings that persons diagnosed with schizophrenia spectrum disorder offer personal narratives in which the participant's sense of self and others is significantly more fragmented than what is offered in the personal narratives of persons with other conditions including bipolar disorder, depression and borderline personality disorder as well as others without significant psychiatric challenges (Lysaker, Minor et al., 2020). In these same studies persons with schizophrenia spectrum disorder also display relatively more fragmented and egocentric senses of their place in the world and struggle to form a unique sense of their challenges and decide how to manage them. Relatively greater levels of fragmentation among persons with schizophrenia is also linked in other studies with disturbances in subjective experience as measured in terms of coherence of autobiographic memory (Holm et al., 2020; Mediavilla et al., 2021), self-compassion (Hochheiser, Lundin & Lysaker, 2020), and the fundamental ways persons make sense of their relationships (Bröcker et al., 2020) and meaning in life (Bercovich et al., 2020). Studies have also linked relatively greater levels of fragmentation with objective phenomenon suggestive of lesser levels of recovery including greater levels of symptoms (Arnon-Ribenfeld, Hasson-Ohayon, Lavidor, Atzil & Lysaker, 2017), especially negative symptoms (Faith et al., 2020; Lysaker, Chernov et al., 2020), decreased awareness of illness (Lysaker, Gagen et al., 2019), lower intrinsic motivation (Luther et al., 2017) as well as a range of issues related to social function including stability and size of social networks (Gagen, Zalzala, Hochheiser, Schnakenberg-Martin & Lysaker, 2019; Masse, Paquin, Lysaker & Lecomte, 2020) and empathy (Bonfils, Lysaker, Minor & Salyers, 2019).

MERIT: Development and implementation

Emerging from the recognition that impairments in metacognition underlie a wide range of objective and subjective features of psychosis, an international collaboration

was formed in order to contemplate how psychotherapy might promote metacognitive capacities among persons with psychosis and related forms mental illness (Lysaker, Gagen et al., 2020). Comprised of experts in psychosis who had substantial experience with cognitive psychotherapy, psychoanalysis, psychiatric rehabilitation and humanistic/existential therapies for adults diagnosed with psychosis, the group's goal was to produce a treatment approach that could be applied with fidelity and would be helpful to a broad range of persons diagnosed with psychosis despite the substantial diversity of clinical features, acuity levels and sociocultural contexts which often characterize this group.

Since the problems presented by psychosis are sufficiently complex and far reaching that they cannot be addressed exclusively by any one model, it was determined that this psychotherapeutic approach needed to be relevant and accessible to a broad audience of clinicians, including cognitive behavioral, humanistic, existential and psychodynamic practitioners. As a result, MERIT was developed so that a diverse group of clinicians utilizing different approaches would find it to be relevant and be able to use it in responding to the unique needs of individual patients by facilitating exchanges which promote metacognitive capacity.

At the onset, it was also decided that since metacognition is concerned with the relationships between different experiences and the larger meanings which may emerge from them, the approach for each patient could not be predetermined in terms of a fixed curriculum or set of specified activities. Rather, if the task was for the patient and therapist to jointly make sense of the patient's experience and how to best respond to it, the content of those exchanges could not be determined a priori. Indeed, certain interventions which might be effective for one individual might work against the development of metacognitive capacity in another. For example, for one patient a mindfulness exercise might allow the patient to be aware of bodily distress compromising self-confidence while for another the same mindfulness exercise might feel like the therapist exerting control and telling the patient how to explore their experience. Only a joint exploration of the meaning of practicing certain exercises can enhance both metacognition and recovery.

In order to meet these goals, a problem-focused or symptom-based approach is explicitly avoided. Rather, it was decided that MERIT should be defined in terms of clinical processes and definable therapist behavior which could transcend a particular clinical approach and would serve to promote joint reflection about the metacognitive process. It was also evident that given the deeply subjective nature of the outcomes and complexity of the potential barriers to those outcomes, a recommended length of treatment could not be reasonably suggested.

The defining elements of MERIT

MERIT was defined as the sufficient presence of eight elements in each session (Lysaker & Klion, 2017). These elements were divided into three groups referred to as content, process, and superordinate elements.

Content elements involve reflection upon the material patients bring to therapy and their reactions to the therapist's response to that material. In each case, successful adherence is defined as an attempt to reflect upon the concerns of each element rather than the attainment of any particular insight.

- Element one, or *The agenda*, requires consideration of the things the patient is seeking regardless of how potentially contradictory, complimentary or unrelated these things may be, or the extent to which these things are inside of or outside of awareness.
- Element two, or *Insertion of the therapist's mind*, calls for the therapist to enter into a dialogue with the patient about the material they have introduced and to consider the range of reactions patients have to what the therapist has shared about their response to that material.
- Element three, or *Eliciting narrative episodes*, calls for consideration of the patient's experience in terms of their narrative of sequences of events. In other words, this involves explicit interest in stories about experiences rather than abstractions about those experiences.
- Element four, or *Defining the psychological problem*, calls for consideration of the psychological challenges the patient is having to address in their life.

Process elements are concerned with the experience within the psychotherapy session itself. In contrast to the content elements, the process elements promote reflection about the therapeutic context in which reflections are taking place and the impact of these reflections upon the patient.

- Element five, or *Reflecting on the therapeutic relationship*, calls for the consideration of the therapeutic relationship as an interpersonal environment in which joint reflection is taking place within the session with the patient.

– Element six, or *Reflecting on progress*, calls for a joint consideration between the patient and therapist of the concrete consequence of the session in terms of the patient's embodied, cognitive or emotional experience. Here, the focus is on what has changed and stayed the same in the patient's mind and body in response to what has been discussed.

Superordinate elements are concerned with whether the therapist's interventions are at a level consistent with the patients' current metacognitive capacities. These last two elements are grounded in the MERIT integration framework (MERIT-IF; Lysaker & Klion, 2017), a clinical tool based upon the MAS-A, that is used in-session to assess patients' capacities on each of these dimensions and ensure that interventions are commensurate with those abilities.

– Element seven, or *Stimulating self-reflection and awareness of the other*, asks therapists to offer interventions that stimulate patients to think about themselves or others at a level that does not exceed the patients' current metacognitive abilities.
– Element eight, or *Stimulating mastery*, specifies that therapist reflections about patients' sense of their challenges and response to them, referred to as mastery, is consistent with the patients' metacognitive abilities.

The eight MERIT elements are intended to enhance metacognitive capacity in a synergistic manner. Like physical therapy, MERIT seeks to optimally challenge the patient so that new capacities develop over time. Care is taken to not overwhelm the patient with interventions that are too complex but also to ensure that they are sufficiently challenging so that growth will be stimulated. In this model, patients think about themselves and others in each session and slowly become increasingly able to do so in a way that more information can be integrated. This facilitates the patient's capacity to make sense of the challenges they face and seek ways to overcome them with the ultimate goal of self-directed recovery.

Importantly, these elements are intended to be something that could be executed when interacting with patients with very different clinical presentations. As an illustration, consider four different patients diagnosed with psychosis who present in session in very different ways. The first says she is not ill and is attending under coercion. The second says he is tortured by voices inserted in his head which remind him of humiliating concerns. The third experiences apathy, anhedonia and expresses little emotion, sitting quietly and uncertain of what to say. The fourth speaks in incomplete sentences which are disorganized and offer ideas which are difficult to follow. For each, then the task in MERIT is the same; explore what the patient's agenda is (Element one), engage the patient in dialogue (Element two), elicit narrative episodes (Element three), etc. An essential point here is that patients with very divergent complaints may require similar approaches while patients with similar complaints may require quite different approaches. Focusing on the first element to flesh out this idea, the patient with positive symptoms and the one with disorganization, for example, may agree that their primary concern is not to be vulnerable. Thus, in MERIT for both patients, despite their dissimilarities, there would be a similar exploration of what vulnerability meant to them and why it would be important for each patient to avoid it. By contrast, one patient with negative symptoms such as apathy, anhedonia and blunted affect might reveal their agenda to involve having another person understand them while another with the same symptoms might reveal that their key goal in the session is to protect themselves from anyone ever judging them. In parallel, patients with different presenting concerns may require the same level of intervention in MERIT given their similar levels of metacognitive function while patients with similar complaints may need different interventions given their level of metacognitive function. Thus, the overarching idea is that the processes identified in the MERIT elements supersede clinical presentation and allow for a unified approach that can stretch across and address the needs of patients with broadly different concerns.

A final issue is that the elements of MERIT are intended to ensure that therapists from different backgrounds can adapt their practice to conform to the elements of MERIT and promote the growth of metacognitive capacity and recovery. Thus, therapists do not need to learn radically new procedures, though they may need to look at what they do and how they think about outcome in a significantly different light. MERIT intends, for example, that a humanistic, cognitive and psychodynamic therapist could practice in ways similar to how they have previously. The difference that would come from MERIT would be that these therapists might each now see certain processes that were perhaps previously in background as now in the foreground and other practices that may have been previously seen as benign, as destructive and to be avoided. As a formal illustration, case work has described how common interventions, including behavior activation and psychoeducation, can be altered and offered in ways

in which retain some of their original characteristics while also forging at a deeper level meaning in an intersubjective context within psychotherapy (Hasson-Ohayon, Arnon-Ribenfeld, Hamm & Lysaker, 2017; Igra, Roe, Lavi-Rotenberg, Lysaker & Hasson-Ohayon, 2020).

MERIT: Points of divergence and convergence with current trends

When considered in total, the elements of MERIT have much in common with other contemporary therapies for psychosis but also have some significant dissimilarities. Like a number of cognitive therapies, MERIT seeks to promote recovery and to facilitate the process of patients thinking about their own thoughts and their relationships to those thoughts (Lysaker & Hasson-Ohayon, 2018). It also shares an orientation toward working collaboratively with patients in a way that matches shared decision making (Zisman-Ilani, Lysaker & Hasson-Ohayon, 2021). However, in contrast to many approaches, MERIT does not suggest to patients what they should talk about. It also emphasizes joint meaning making between patients and therapists rather than one party on their own discovering and proposing solutions. Rather than therapists unilaterally prescribing activities that are thought to be enlightening or elucidating, therapists in MERIT are asked to behave in a creative fashion so that the patient's metacognition is stimulated in a way that will promote their ability to make meaning of their experiences and responses to those experiences. In MERIT, the therapist sharing their reactions and thoughts and subsequent exploration of patients' reactions to that can itself be a key intervention which promotes the growth of metacognitive capacity.

MERIT also differs from more medically focused treatments in that it seeks to engage patients in the process of making sense of their condition and challenges they face. As a result, patients who initially are unable to identify concrete goals or even agree that they have mental illness can be engaged and treated by these procedures. Finally, the goals and outcomes of this treatment approach are largely patient-directed and are also more fluid than in many other approaches. As a patient's self-understanding and appreciation of their situation evolves, goals that were initially not apparent may come the fore and represent tangible aspects of recovery.

MERIT: Evidence and limitations

Initial evidence that supports MERIT comes from quantitative, qualitative and case studies. To date, three open trials of MERIT conducted within brief, medium length and long-term formats have found that patients diagnosed with psychosis will accept this treatment and experience significant improvements in metacognitive function (Bargenquast & Schweitzer, 2014; de Jong, van Donkersgoed, Pijnenborg & Lysaker, 2016; Lavi-Rotenberg et al., 2020; Schweitzer, Greben & Barenquast, 2017). More significantly, two randomized controlled trials report positive outcomes for patients diagnosed with schizophrenia without adverse effects (de Jong, van Donkersgoed et al., 2019; Vohs et al., 2018). The latter study was notable because despite the fact that it was comprised of patients with first episode psychosis and poor insight, a group notoriously difficult to engage in treatment, with 80% of patients completed treatment and achieved significant improvements in insight (Vohs et al., 2018).

Qualitative and case reports have also supported the efficacy of MERIT. Two qualitative studies of persons diagnosed with psychosis who received MERIT found that patients were able to think about themselves in more complex ways which enabled them to form an understanding of themselves as connected to their pasts, having a coherent sense of their future and able to tolerate and manage emotional pain (Lysaker et al., 2015; de Jong, Hasson-Ohayon et al., 2019). As summarized elsewhere (Lysaker, Gagen et al., 2020), an analysis of 15 different case studies indicated that MERIT can be delivered with fidelity to persons with a wide range of clinical presentations and yield positive treatment outcomes.

In summary, this work provides significant early support for MERIT as a treatment for persons diagnosed with psychosis. Future studies are needed with more diverse samples and long-term follow-up assessments. Further work should also include qualitative assessments of the effects of MERIT from the patient's viewpoint. Additionally, there is a need for mixed method approaches which can tease apart the complex and nuanced relationships that exist between subjective and objective outcomes that might emerge from this treatment. For instance, how are subtle qualitative changes in how a person thinks about themselves related to measurable changes in psychosocial function. Finally, MERIT research to date has focused almost exclusively on individual interventions in outpatient settings. As a result,

work is needed to explore whether and how these procedures might be expanded to family, group, and inpatient settings, especially for persons in particularly acute states.

From a psychotherapy process perspective, many questions remain. For instance, while fidelity to the MERIT treatment model is conceptually defined by the presence of eight elements in treatment sessions, it has yet to be determined whether these prescribed elements can be empirically linked to demonstrable clinical outcomes. To this point, a recent study suggested that the second and sixth elements, insertion of the therapist's mind and discussion of the therapeutic relationship, were more predictive of positive clinical outcomes than the other elements (Lavi-Rotenberg et al., 2020). Further, while much of MERIT related research has focused on attention to the metacognitive dimensions of self-reflectivity, awareness of the other and mastery, interest is growing in the domain of decentration to address what phenomenologists have long described as centrality or the sense that in the world one is always the center of events (Phulpin, Goze, Faure & Lysaker, in press). Other work is in parallel exploring how this approach may also address personality disorder, including schizotypal personality disorder (Cheli, Lysaker & Dimaggio, 2019). Finally, there has been emerging work on how to best train and supervise MERIT therapists (Lysaker, Buck et al., 2019), however, further attention needs to be directed toward refining these practices and increasing our understanding of how to support this treatment in diverse settings.

References

ANDRESEN, R., OADES, L. & CAPUTI, P. (2003). The experience of recovery from schizophrenia: Towards an empirically validated state model. *Australian New Zealand Journal of Psychiatry*, 37, 586-594.

ARNON-RIBENFELD, N., HASSON-OHAYON, I., LAVIDOR, M., ATZIL, M. & LYSAKER, P.H. (2017). A meta-analysis and systematic review of the association between metacognitive abilities, symptoms and functioning among people with schizophrenia. *European Psychiatry*, *46*, 33-41.

BARGENQUAST, R. & SCHWEITZER, R.D. (2014). Enhancing sense of recovery and self-reflectivity in people with schizophrenia: A pilot study of metacognitive narrative psychotherapy. *Psychology and Psychotherapy*, *87* (3), 338-356.

BEEBE, B., KNOBLAUCH, S., RUSTIN, J. & SORTER, D. (2005). Forms of intersubjectivity in interpersonal/relational perspective. *International Journal of Psychoanalysis*, *90*, 347-361.

BERCOVICH, A., GOLDZWEIG, G., IGRA, L., LAVI-ROTENBERG, A., GUMLEY, A. & HASSON-OHAYON, I. (2020). The interactive effect of metacognition and self- compassion on predicting meaning in life among individuals with schizophrenia. *Journal of Psychiatric Rehabilitation*, *43* (4), 290-298. doi: 10.1037/prj0000413

BONFILS, K.A., LYSAKER, P.H., MINOR, K. & SALYERS, M.P. (2019). Metacognition, personal distress, and performance-based empathy in schizophrenia. *Schizophrenia Bulletin*, *45*, 19-26.

BRÖCKER, A.L., BAYER, S., STUKE, F., JUST, S., BERTRAM, G., FUNCKE, J., GRIMM, I., LEMPE, G., VON HAEBLER, D. & MONTAG, C. (2020). Levels of structural integration mediate the impact of metacognition on functioning in non-affective psychosis: Adding a psychodynamic perspective to the metacognitive approach. *Frontiers in Psychology, 11,* 269 doi. org/10.3389/fpsyg.2020.00269

BUCK, B.E., GAGEN, E.C., LUTHER, L., KUKLA, M.E. & LYSAKER, P.H. (2020). Dynamic relationships between emotional distress, persecutory ideation, and metacognition in schizophrenia. *Journal of Clinical Psychology*, *76* (4), 716-724. doi: 10.1002/jclp.22904

CHELI, S., ENZO, C., CHIARELLO, F. & CAVALLETTI, V. (2021). Metacognitive Assessment Scale – Abbreviated and Indiana Psychiatric Illness Interview: Psychometric validation in two Italian clinical and non-clinical samples. *BPA – Applied Psychology Bulletin*, *290*. 4-13. doi10.26387/bpa.290.1

CHELI, S., LYSAKER, P.H. & DIMAGGIO, G. (2019). Metacognitively oriented psychotherapy for schizotypal personality disorder: Two cases series. *Personality and Mental Health*, *13* (3), 155-167.

CORTINA, M. & LIOTTI, G. (2010). The intersubjective and cooperative origins of consciousness: An evolutionary-developmental approach. *Journal of the American Academy of Psychoanalysis and Psychodynamic Psychiatry, 38*, 291-314. doi: 10.1521/jaap.2010.38.2.291

DAVIDSON, L. (2003). *Living outside mental illness: Qualitative studies of recovery in schizophrenia*. New York, NY: New York University Press.

DE JONG, S., HASSON-OHAYON, I., VAN DONKERSGOED, R., ALEMAN, A. & PIJNENBORG, G.H.M. (2019). A qualitative evaluation of the effects of metacognitive reflection and insight therapy: Living more consciously. *Psychology and Psychotherapy*, *93* (2), 223-240. doi: 10.1111/papt.12212

DE JONG, S., VAN DONKERSGOED, R., PIJNENBORG, G.H.M & LYSAKER, P.H. (2016). Metacognitive reflection and insight therapy (MERIT) with a patient with severe symptoms of disorganization. *Journal of Clinical Psychology*, *72* (2), 164-174.

DE JONG, S., VAN DONKERSGOED, R.J.M., TIMMERMAN, M.E, AAN HET ROT, M., WUNDERINK, L., ARENDS, J., VAN DER GAAG, M., ALEMAN, A., LYSAKER, P.H. & PIJNENBORG, G.H.M. (2019). Metacognitive reflection and insight therapy (MERIT) for patients with schizophrenia. *Psychological Medicine*, *49 (2)*, 303-313.

FAITH, L.A., LECOMTE, T., CORBIERE, M., FRANCOEUR, A., HACH LABELLE, C. & LYSAKER, P.H. (2020) Metacognition is uniquely related to concurrent and prospective assessments of negative symptoms independent of verbal memory in serious mental illness. *Journal of Nervous and Mental Disease*, *208* (11), 837-842. doi: 10.1097/NMD.0000000000001219

FIRMIN, R.L., ZALZALA, A.B., HAMM, J.A., LUTHER, L. & LYSAKER, P.H. (2021). Psychosis interrupts the lives of men and women differently: A qualitative comparison of personal narratives by gender. *Psychology and Psychotherapy*. doi: 10.1111/papt.12317

FLAVELL, J.H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, *34* (10), 906-911.

GAGEN, E., ZALZALA, A.B., HOCHHEISER, J., SCHNAKENBERG-MARTIN, A. & LYSAKER, P.H. (2019). Metacognitive deficits and social function in schizophrenia across symptom profiles: A latent classes analysis. *Journal of Experimental Psychopathology*, *10* (1). doi.org/10.1177/2043808719830821

HAMM, J.A., RUTHERFORD, E., WIESEPAPE, C.N. & LYSAKER, P.H. (2020). Community mental health practice in the United States: Past, present, and future. *Consortium Psychiatricum*, *1* (2), 7-13. doi:10.17650/2712-7672-2020-1-2-7-13

HASSON-OHAYON, I., ARNON-RIBENFELD, N., HAMM, J.A. & LYSAKER, P.H. (2017). Agency before action: The application of behavioral activation in psychotherapy with persons with psychosis. *Psychotherapy*, *54* (3), 245.

HASSON-OHAYON, I., GOLDZWEIG, G., LAVIE, A., LUTHER, L. & LYSAKER, P.H. (2018). The centrality of cognitive symptoms and metacognition within the network of symptoms, neurocognition, social cognition, and metacognition in schizophrenia. *Schizophrenia Research*, *202*, 260-266.

HASSON-OHAYON, I., GUMLEY, A., McLEOD, H. & LYSAKER, P.H. (2020). Metacognition and intersubjectivity: Reconsidering their relationship following advances from the study of persons with psychosis. *Frontiers in Psychology*, *11*, 567. doi.org/10.3389/fpsyg.2020.00567

HOCHHEISER, J., LUNDIN, N. & LYSAKER, P.H. (2020). The independent relationships of metacognition, mindfulness, and cognitive insight to self-compassion in schizophrenia. *Journal of Nervous and Mental Disease*, *208* (1), 1-6. doi: 10.1097/NMD.0000000000001065

HOLM, T., KIRKEGAARD THOMSEN, D., BENSON, K., WATKINS, M. & LYSAKER, P.H. (2020). Narrative identity, metacognition, and well-being in patients with schizophrenia or HIV. *Journal of Nervous and Mental Disease*, *208* (12), 948-965. doi: 10.1097/NMD.0000000000001238

IGRA, L., ROE, D., LAVI-ROTENBERG, A., LYSAKER, P.H. & HASSON-OHAYON, I. (2020). "Making sense of my diagnosis": Assimilating psychoeducation into metacognitive psychotherapy for individuals with schizophrenia. *Journal of Psychotherapy Integration.* doi.org/10.1037/int0000207

KORSBEK, L. (2013). Illness insight and recovery: How important is illness insight in peoples' recovery process? *Psychiatric Rehabilitation Journal*, *36* (3), 222-225.

KUKLA, M. & LYSAKER, P.H. (2020). Metacognition over time is

related to neurocognition, social cognition, and intrapsychic foundations in psychosis. *Schizophrenia Research: Cognition*, *19*, 100149. doi.org/10.1016/j.scog.2019.100149

LAVI-ROTENBERG, A., ERAN BAR-KALIFA, E., DE JONG, S., BEN-DOR, L., LYSAKER, P.H. & HASSON-OHAYON, I. (2020). Elements that enhance therapeutic alliance and short-term outcomes in metacognitive reflection and insight therapy: A session by session assessment. *Journal of Psychiatric Rehabilitation*, *43* (4), 318-326. doi: 10.1037/prj0000415

LEONHARDT, B.L., HULING, K., HAMM, J.A. et al. (2017). Recovery and serious mental illness: A review of current clinical and research paradigms and future directions. *Expert Review of Neurotherapeutics*, *17* (11), 1117-1130.

LUTHER, L., BONFILS, K.A., FIRMIN, R.L., BUCK, K.D., CHOI, J., DIMAGGIO, G., POPOLO, R., MINOR, K.S. & LYSAKER, P.H. (2017). Is metacognition necessary for the emergence of motivation in schizophrenia? A necessary condition analysis. *Journal of Nervous and Mental Disease*, *205* (12), 960-966.

LYSAKER, P.H., BUCK, K.D., PATTISON, M.L., BEASLEY, R.E., HILLIS, J.D. & HAMM, J.A. (2019). Supervision in the psychotherapy of schizophrenia: Awareness of and mutual reflection upon fragmentation. *American Journal of Psychoanalysis*, *79* (3), 284-303.

LYSAKER, P.H., CHELI, S., DIMAGGIO, G., BUCK, B., BONFILS, K., HULING, K., WIESEPAPE, C. & LYSAKER, J.T. (2021). Metacognition, social cognition, and mentalizing in psychosis: Are these distinct constructs when it comes to subjective experience or are we just splitting hairs? *BMC Psychiatry*, *21*, 329. doi.org/10.1186/s12888-021-03338-4

LYSAKER, P.H., CHERNOV, N., MOISEEVA, T., SOZINOVA, M., DMITRYEVA, N., ALYOSHIN, V., FAITH, L.A., KARPENKO, O. & KOSTYUK, G. (2020). Contrasting metacognitive profiles and their association with negative symptoms in groups with schizophrenia, early psychosis and depression in a Russian sample. *Psychiatry Research*, *291*, 113177. doi: 10.1016/j.psychres.2020.113177

LYSAKER, P.H., GAGEN, E.C., KLION, R., ZALZALA, A.B., VOHS, J., FAITH, L.A., LEONHARDT, B.L., HAMM, J.A. & HASSON-OHAYON, I. (2020). Metacognitive reflection and insight therapy: A recovery oriented treatment approach for psychosis. *Psychology Research and Behavior Management*, *13*, 331-341. doi: 10.2147/PRBM.S198628

LYSAKER, P.H., GAGEN, E., WRIGHT, A., VOHS, J.L., KUKLA, M., YANOS, P.T. & HASSON-OHAYON, I. (2019). Metacognitive deficits predict poor insight in schizophrenia across symptom profiles: A latent classes analysis. *Schizophrenia Bulletin*, *45* (1), 48-56. doi: 10.1093/schbul/sby142

LYSAKER, P.H. & HASSON-OHAYON, I. (2018). Metacognition in psychosis: Implications for developing recovery oriented psychotherapies. In C. Culpitt (Ed.), *CBT for psychosis: Process-orientated therapies and the third wav*e. London: Routledge.

LYSAKER, P.H. & KLION, R.E. (2017). *Recovery, meaning-making, and severe mental illness: A comprehensive guide to metacognitive reflection and insight therapy*. New York: Routledge.

LYSAKER, P.H., KUKLA, M., BELANGER, E., WHITE, D.A., BUCK, K.D., LUTHER, L., FIRMIN, R. & LEONHARDT, B. (2015). Individual psychotherapy and changes in self-experience in schizophrenia: A qualitative comparison of patients in metacognitively focused and supportive psychotherapy. *Psychiatry*, *78* (4), 305-316.

LYSAKER, P.H. & LYSAKER, J.T. (2010). Schizophrenia and alterations in self-experience: A comparison of 6 perspectives. *Schizophrenia Bulletin*, *36* (2), 331-340.

LYSAKER, P.H. & LYSAKER, J.T. (2017). Metacognition, self-experience and the prospect of enhancing self-management in schizophrenia spectrum disorders. *Philosophy, Psychiatry and Psychology*, *24* (2), 69-178.

LYSAKER, P.H. & LYSAKER, J.T. (2020). Disturbances in dialogue and metacognition: A renewed way to understand and respond to alterations in self-experience in psychosis. *Theory and Psychology*. doi.org/10.1177/0959354320973752

LYSAKER, P.H., MINOR, K.S., LYSAKER, J.T., HASSON-OHAYON, I., BONFILS, K., HOCHHEISER, J. & VOHS, J.L. (2020). Metacognitive function and fragmentation in schizophrenia: Relationship to cognition, self-experience and developing treatments. *Schizophrenia Research Cognition*, *19*. doi:10.1016/j.scog.2019.100142

MASSE, M., PAQUIN, K., LYSAKER, P.H. & LECOMTE, T. (2020). Evolution of social networks in early psychosis. *Psychosis*, *12* (3), 222-233. doi: 10.1080/17522439.2020.1736611

McCARTHY-JONES, S., MARRIOTT, M., KNOWLES, R., ROWSE, G. & THOMPSON, A.R. (2013). What is psychosis? A meta-synthesis of inductive qualitative studies exploring the experience of psychosis. *Psychosis*, *5* (1), 1-16.

MEDIAVILLA, R., LÓPEZ-ARROYO, M., GÓMEZ-ARNAUC, J., WIESEPAPE, C., LYSAKER, P.H. & LAHERA, G. (2021). Autobiographical memory in schizophrenia: The role of metacognition. *Comprehensive Psychiatry*, 10.1016/j.comppsych.2021.152254

MONCRIEFF, J. (2015). Antipsychotic maintenance treatment: Time to rethink? *PLoS Medicine*, *12* (8), e1001861.

MORITZ, S. & LYSAKER, P.H. (2018). Metacognition - what did James H. Flavell really say and the implications for the conceptualization and design of metacognitive interventions in schizophrenia. *Schizophrenia Research*, *201*, 20-26.

PHULPIN, H., GOZE, T., FAURE, K. & LYSAKER, P.H. (in press). Centrality and decentration: A model of disturbances in the relationship of the self to the world in psychosis. *Journal of Nervous and Mental Disease*.

SCHWEITZER, R.D., GREBEN, M. & BARENQUAST, R. (2017). Long-term outcomes of metacognitive narrative psychotherapy for people diagnosed with schizophrenia *Psychology and Psychotherapy*, *90* (4), 668-685.

SEMERARI, A., CARCIONE, A., DIMAGGIO, G., FALCONE, M., NICOLÒ, G., PROCACCI, M. & ALLEVA, G. (2003). How to evaluate metacognitive functioning in psychotherapy? The metacognition assessment scale and its applications. *Clinical Psychology and Psychotherapy*, *10* (4), 238-261.

STERN, D.N. (2000). *The interpersonal world of the infant: A view from psychoanalysis and developmental psychology.* New York: Basic Books.

VOHS, J.L., LEONHARDT, B.L., JAMES, A.V., FRANCIS, M.M., BREIER, A., MEHDIYOUN, N., VISCO, A.C. & LYSAKER, P.H. (2018). Metacognitive reflection and insight therapy for early psychosis: A preliminary study of a novel integrative psychotherapy. *Schizophrenia Research*,*195*, 428-433.

ZISMAN-ILANI, Y., LYSAKER, P.H. & HASSON-OHAYON, I. (2021). Shared risk-taking: Shared decision making in serious mental illness. *Psychiatric Services*, *72* (4), 461-463. doi: 10.1176/appi.ps.202000156