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Program Development Meets Theory Development: MBGT-i for Schizophrenia Spectrum and Other Psychotic Disorders

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Abstract

Kanas (1996) meta-analysis finds that group therapy for SSOPD is effective when it combines education, psychodynamic, and interpersonal components. Mentalization-Based Group Therapy-interactional (MBGT-i) is a new suggested practice of this integrative model. Participants in a mentalization-based group therapy program are assessed pre- and post-intervention according to responses on RFQ 8 and staff measures of social competence. Program evaluation case study proposes that both clients' affective responses and clients' mentalizing in social interactions will increase as a result of MBGT-i sessions. Obtained quantitative results are in the predicted direction, but not at statistically significant levels. Findings of proposed hypotheses indicate that the model instills in participants an attachment to the group purpose of improving social understanding.

Keywords: Mentalization • Psychodynamic • Schizophrenia

Introduction

When a person is diagnosed with schizophrenia or Schizophrenia Spectrum and Other Psychotic Disorders (SSOPD), his major challenge is to learn about, and accept that he has an illness, because so many people have false notions about the disease (i.e., myths of mental illness). Without a doubt, education about mental illness, in general, and schizophrenia in particular, gives a person a foundation upon which to build the coping skills that this condition mandates. There are several types of group therapies for schizophrenia, known collectively as "psychosocial" therapies. Psychosocial refers to therapies that address the psychology of the person and how he interacts in his social environment. Examples of traditional psychosocial group therapies are: Understanding Mental Illness; Symptom Management; Medication Education; Substance Abuse Treatment; Rehabilitation (social skills; cognitive and vocational training); Cognitive Behavioral Therapy; Interpersonal Skills Development; Relapse Prevention, and Support Groups. Group therapy for schizophrenia is beneficial in that it brings people together to advocate and comfort one another during the more challenging parts of the mental illness. Studies evaluating the benefits of group therapy for SSOPD date back to the advent of psychotropic medications. A meta-analysis of the literature regarding the effectiveness of group psychotherapy for this population finds that group therapy is better than no therapy at all for both inpatients and outpatients; and as good as, or better than, individual therapy [1]. This finding influences the choice of therapy modality in hospitals currently. Group therapy is practiced widely. Criterion measures used in the studies Kanas reviews include discharge and rehospitalization; measures of symptoms; and improvement in social skills. Kanas conclude that best practice is an integrative approach that includes educative, psychodynamic, and interpersonal elements [1]. Possibly in reaction to fears of parental blaming, schizophrenia has increasingly become discussed as a non-affective psychosis, and viewed in isolation from psychodynamic theories of interpersonal functioning and affect regulation. Recent studies, however, discuss key relationship variables in the development of psychosis. Gumley and Schwannauer propose that psychosis is fundamentally a disorder characterized by affect dysregulation understood within the framework of attachment theory [2]. Korver-Nieberg et al. conduct a meta-analysis of research investigating attachment theory and psychosis [3]. They conclude, from a review of 29 different studies, that it may be helpful to improve attachment security in a context of therapeutic relationship before encouraging an individual to explore his experience of psychosis. They emphasize that attachment experiences are important for processing social information, mentalizing, and developing social relationships, including therapeutic relationships, for individuals with psychosis. Over the years group therapeutic models for SSOPD have steered away from psychoanalytic and interpersonal approaches due to research suggesting that insight-oriented, uncovering treatment may be harmful for schizophrenic inpatients [4-7]. Cognitive Behavior Therapy has been endorsed as the preferred approach. Cognitive Behavioral Treatment approaches have provided a basis for the development of interventions focused on decreasing compliance with harmful command hallucinations. Shawyer et al. has founded TORCH (Treatment of Resistant Command Hallucinations), a treatment model which aims to weaken the power of the voices through belief modification and assertiveness training [8].

Methodology

Social cognition and mentalization

Sterea et al. propose a relationship between social cognition and functional outcomes in schizophrenia [9]. Social cognition refers to the range of perceptual, processing, and integrative capacities that make possible effective interactions with others. Research finds a stronger

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association between social cognition than neurocognition in terms of community functioning [10]

A number of researchers have converged upon the study of social cognition difficulties in schizophrenic patients, notably the NIMH study of Green et al. [11], which added "social knowledge" to the four core domains of social cognition identified by Lana et al. [12]:emotion processing, social perception, theory of mind/mentalizing, and attributional style/bias.

Therapies that treat social cognition difficulties share a focus on the thinking process rather than on the thinking content (i.e., on the accuracy of thoughts and beliefs). These therapies aim to stimulate and improve the patient's capacity to "think about thinking", in other words to mentalize.

Neuropsychological research considers a fundamental cognitive impairment underpinning the characteristic symptoms of schizophrenia from the perspective of Theory of Mind (ToM) [13]. Impairment in the ability to correctly interpret and predict the mental states of other people exists in the disorder.

Adolphs describes a Functional MRI (FMRI) study that demonstrates amygdala activation when subjects have to attribute mental states and intentions to other people from looking at pictures of their eyes [14,15]. A lesion to this region can impair the ability to attribute mental states, such as false beliefs, to other individuals [16,17].

Bliksted et al. report that FMRI studies find mentalizing deficits in first episode schizophrenia consist of both hypo- and hyper-mentalizing [18]. First episode schizophrenia subjects show under-interpreted social cues and over-interpreted nonsocial cues. Nonsocial cues are those that involve non-¬interactional events, such as a random sequence of behaviors.

According to McGauley et al. the contribution of attachment to human development extends beyond ensuring the survival of the infant and creating the template for later interpersonal interactions [19]. Attachment equips the individual with an intrapsychic mental mechanism that allows the individual to represent mental states of the self and other, and to mentalize. Mentalization is a representational system that allows for the processing of experience.

Chronic exposure to developmental stressors, such as problematic attachment relationships, is thought to increase risk for psychosis, in part because of its disruption of the Hypothalamic-Pituitary-Adrenal (HPA) axis and dopamine regulation [18]. Dysfunctional dopamine may provide vulnerability for a "heightened state of awareness." Psychotic phenomena are characterized by a hyper-focus on inner mental states and the loss of a sense of being the subject of one's experience. Individuals at risk for psychosis, who develop mentalization impairments in the context of attachment insecurity, may be vulnerable to elaborating abnormal explanations of social experience [19]. As such, they may be prone to paranoid or grandiose beliefs, and difficulties differentiating internal from external experience.

Because psychotic symptoms frequently involve misunderstandings of social situations (e.g., persecutory delusions and hallucinations) or self-appraisals with respect to others (grandiose or religious delusions), it is hypothesized that disturbed social understanding may constitute vulnerability in psychosis. In addition, there is evidence that aberrant mentalization is linked to social dysfunction (inability to work, poor quality of life) associated with psychosis, more than any other social or neurocognitive domain tested [10].

It is clear from the psychology literature that social understanding is much more complex than intelligence, neurocognition, or symptom remission. It is imperative for our work that we assist our patients in seeing through the array of indirect communications so that they "get" what's going on around them. And, it is critical for our patients' community functioning that they develop the capacity for healthy mentalizations.

Current study

The group psychotherapy model under study, Mentalization-Based Group Therapy-Interactional (MBGT-i), as developed by the authors, attempts to enhance mentalization by generating a context for attachments, within which current experiences in relationships are discussed. The group process intensifies internal working models of attachment relationships. The facilitators assist the client's regulation of affect through appropriate "marked" responses. The creation of a safe and sensitive interpersonal environment allows the client to explore alternative perspectives on mental experience. The group objective is for clients to find out more about how they think and feel about themselves and others, and how those thoughts and feelings influence their behavior. A quality manual for MBT, (p.5). The model is particularized as Interactional since its therapeutic action is conducted through interactional activities and exercises in each session; and as the group progresses, through structured discussions of group members' current interpersonal concerns. The key clinical features of the approach include: Structure; focus on optimal stimulation of attachment system; careful "marking" of affective experience; specific focus on mental processes; and interventions that match the mentalizing capacities of the patient rather than the therapist.

Research design

The current pilot study's purpose is to examine the desirability of implementing a program of mentalization based group therapy, MBGT-I, for individuals diagnosed with SSOPD. The research design is quantitative, augmented by evaluation of process-oriented propositions.

The process-oriented propositions are: 1) MBGT-i is predicted to increase participants' affective expression; and 2) MBGT-i is predicted to increase mentalizing in social interactions. The propositions are organic to the model.

MBGT-i is a program that consists of twelve one-hour per week group therapy sessions. The curriculum includes multimedia lessons, activities, and process sessions illustrating concepts of social understanding. Group educational materials are derived from multiple research and educational sources that are evidence-based. These are adapted, as needed, throughout the group process to facilitate participants' mentalizing. The pilot study case analysis, using patient performance indicators intended to measure improvement in quality of mentalizing and abilities in self-reflection and taking another person's perspective, is conducted. Paired t-tests are used to compare the differences between patients pre-MBGT-i and post-MBGT-i scores on outcome measures.

The agency that is the setting for the pilot study is a nonprofit organization promoting recovery and wellness for people with mental illness. Transitional Mental Health Association (TMHA) is dedicated to eliminating the stigma associated with mental illness ("SLOtheSTIGMA.org"). Clients are offered housing; work opportunities; and community support services, including "Wellness Centers" and support groups. Clients are also in treatment with a psychiatrist and clinician. Other support staff includes client advocates and case managers.

The two MBGT-i group facilitators and primary investigators are clinical psychologists providing volunteer group treatment services to clients at the agency location. Clients that participated in the MBGT-I sessions are: E, G, J, N, R, and S.

Group participants sign consent forms to participate in MBGT-i and complete pre- and post-intervention Reflective Functioning Questionnaires (RFQ-8). This assessment shows robust and flexible mentalizing. TMHA clinicians for each group participant complete a pre- and post-intervention 15 item non-standardized staff questionnaire that is related to session learning objectives developed by the authors. The staff questionnaire is considered to measure social cognition competency. In addition, group members are surveyed regarding "what they most need help with" and

regarding their "subjective experience of the group's efficacy."

Items are as follows:

1. Client shows interest in another person's conversation.
2. Client is able to see herself/himself from the outside, as others see client.
3. Client acknowledges thoughts and feelings as his/her own.
4. Client understands and accepts another's point of view when not agreeing with it.
5. Client is aware of self-experience that is distinct from others' experience.
6. Client expresses humour and can be playful.
7. Client is flexible in adopting different points of view.
8. Client participates in conversations that are mutual and extend beyond greetings.
9. Client is able to identify and express feelings.
10. Client is able to understand that people sometimes misunderstand one another.
11. Client conveys that he/she is agent of his/her experience rather than "it happened to me."
12. Client is able to think about his/her own feelings.
13. Client is able to solve problems.
14. Client is able to sustain interest in another's situation/joys/challenges.
15. Client is able to think about the thoughts and feelings of others.

Providers of the MBGT-i transcribe detailed observations for each session, in order to note group members' mentalizations and affective responses.

Results

In the current study, MBGT-i is predicted to improve mentalizing capacity as measured by the RFQ-8. Paired t-test analyses are not statistically significant. MBGT-i is also predicted to improve social cognition competency as measured by the Staff Questionnaire (Table 1). Observed improvements that are not statistically significant are found. Staff Questionnaire total score pre-treatment mean is 62.5; post-treatment mean is 68. The Staff Questionnaire is found to have high internal reliability (Cronbach's α equal to 0.8612), suggesting that items on the instrument measure the same underlying construct. Highly correlated items are:

Table 1. The non-standardized staff questionnaire is scored on a 7 point like rt scale.

1	2	3	4	5	6	7
Never, or almost never	Very seldom	Seldom	About half the time	Often	Very often	Always, or almost always

1. Client is able to see herself/himself from the outside, as others see client.
2. Client is able to identify and express feelings.
3. Client is able to understand that people sometimes misunderstand one another.
4. Client is able to think about the thoughts and feelings of others.

Another finding is that MBGT-i participants respond positively to the model, as measured by a 94% group attendance rate. Participation indicators are considered to show degrees of acceptance (also referred to as treatment adherence) and subjective efficacy of the approach [12,20,21].

In the current study, MBGT-i is proposed to increase participants' affective expression. Group observations suggest that affective expression increased over time.

Initially, group consisted of conversation with facilitators in which members were cautious.

E appeared preoccupied, withdrawn, wearing hood up on sweatshirt, anxious about having to write. G was quiet, but attentive. J was verbal, interruptive, questioning legitimacy of facilitators, insisting on answers to the cause of mental illness.

After two groups, participants remarked that they enjoyed the audiovisual materials, activities, exercises, and lessons. They reported that they want "to learn new things." They remarked that facilitators gave them encouraging things to think about. MBGT-i members also appeared to appreciate that mental illness was de-stigmatized. They seemed reassured that facilitators' mentalizations about them considered all parties equal. Members seemed to want to increase interactions and have fewer structured activities.

E when prompted to recall his first problem, gave lengthy description of having "something (suddenly) coming down on me" that changes his mood and orientation completely, and associated this to his having found "a hard piece of metal in the ground when I was digging in my sister's backyard." G relates to the metal and explains, in a logical fashion, aspects of her delusion and how technology partly controls her. J kept his gaze averted from everybody in group; when asked how he was doing, said, "Not good, paranoid," and seemed unable/resistant to say more. Said he'd felt paranoid since last session and had seen the psychiatrist, seeming to say he was too preoccupied to remember last week's session.

R talked about the many things she has to learn about in order to set up her cookie business and received support from S and G. Later, when recalling a first problem in her life, R said her mother's boyfriend had tried to "make a move on me" many times. Other members, G and J, said "this" reminded them of things they had experienced.

Over the course of the sessions, MBGT-i members showed continually growing openness and a sense of belonging. Amount of time spent in group discussions, self-disclosures, and affective expression increased in response to MBGT-i. J said his childhood had been negative "since the very beginning" and stressed that his family had "never cared for or helped" him. At end of session, he said he finds it hard to "wait for a whole week so we can come back to talk more here." N spoke with pride about having moved to pursue her University degree and to become more independent from her family; she also joked that she'd "not done very much about the symptoms" she'd been noticing for some time, "which obviously didn't work out too well for me." S and G spoke with some animation about "voices" and impacts of their symptoms, with J echoing their experiences.

The openness with which members responded in speaking of symptoms and describing distress facilitated the development of coping tools as well as curriculum on social understanding.

N told the group that she'd like to talk about her voices, which were so persistent a few nights ago that she kicked the wall and hurt her foot; she also said that her father's blithe denial of her concern about his falling recently, and dismissal of her had made her angry. N, S, R, and G discussed their voices describing how intrusive, constant and continuing, and demoralizing they often are "they never really go away – not completely, at least. They still sometimes startle me for a moment when I'm asleep, or when I'm super-tired."

N also provided an account of her highly aggravating voices two weeks prior, and mentalized that experience arriving at self-reflection: 1) she had very strong aspirations and drive that day to move out of her parents' house,

and to get a job; 2) as the day went on, her worries about being able to persist and succeed in those goals increased; 3) as the worry increased, the volume and intensity of the voices increased in their merciless attack on her competence.

R echoed N's observations and described her current stalemate: 1) she wants to walk to a treatment center on her own to attend program; 2) she fears she will become too afraid to walk there because she'll think something will happen (abduction) and will turn back; 3) just as she begins to walk there on a "practice try," her voices scream vehemently, "You can't do it. You won't succeed."

Entering a brief but serious phase of symptom exacerbation, R also spoke of an experience in which she was lost for a period of time. She had remembered after talking about her bike accident in a group discussion during an earlier session that a few years ago in Santa Barbara she had gone out one day with a bucket, "walking around and collecting souls in the bucket," and later couldn't recall where she had been for several hours. She also said she had had a nightmare during past week in which she didn't know where she was, "like I was missing." "I wonder if I may have been abducted by aliens and, you know, something was done to me while I was gone." R accepted support but said that she was afraid she might need to be hospitalized because that happened before when she felt this way. Peers' support was unanimously positive, from encouragement to gentle confrontation (from client advocate) that R had come so far in past year. R then said that during next week she will receive her Invega shot, which will definitely help, when she sees her doctor.

In the current study, MBGT-i is also proposed to increase mentalizing in social interactions.

Group observations suggest that members' mentalizing of social interactions also increased over time.

Group members engaged Social Cognition Interaction Training (SCIT) video vignettes and participated fully in group discussion during the exercise asking [22,23], "Is there a social situation affecting you?" Members also responded positively to facilitator's praise for mentalizing and discussing the current life situations that trouble them.

N disclosed that her twin brother's "non-understanding of her mental illness" deeply affects her because of their intensive emotional connection all their lives prior to her having been diagnosed.

G stated that she finds it uncomfortable being around her roommate, and her mother, and sometimes others, because, "They're very heavy and down, like depressed, but I'm not. I also feel like I have to fix them, or anybody else with a problem; I feel like that all the time." When G said her roommate (described as depressed in previous session) had been hospitalized and she stated she felt "those places don't really help; what people in trouble really need is socialization, like here." J became more engaged and strongly agreed.

S shared his thoughts during the previous week about two women he is seeing: one who is more fun and interesting, and another one who makes him feel safe and trusting. He was intrigued by the idea of "intentions" (borrowed from mentalizing lesson) of the women.

R reported that her decision not to visit out-of-state brother, because he tries to encourage her to stop taking her psych meds, and doesn't like her husband, even though she misses him, leaves her feeling quite sad.

J clearly described an interaction he'd had with female friend he's known for a long time, in which he'd disclosed that he felt angry with her and she also disclosed something to him; "She feels more strongly about me than I do about her, but I love her, and we'll stay friends."

S said his grandmother and his therapist both told him to ask the group for help with an issue. He described spending time with his friend since age 9, with whom he had recently overdosed. He described loyalty to friend and wishes to help friend and his family. He was spending time with them, helping to finish construction projects. Despite friend and friend's father frequently using methamphetamine together, as recently as yesterday. S said he felt like he was losing himself, his orientation, and what he really wants. Group members processed S's experience, with observations that ranged from expressing curiosity as to what he's getting from interactions with friend and friend's family, to empathy over how difficult it is for him to care about friend while his friend's family is immersed in a crazy life style. J said he hopes S's friend "gets better." R said her husband is a former drinker and user, who says everybody who used is gone now, in prison or dead. N said she admires her niece who stopped using many years ago and has never regretted the moment of making that decision. J advised, "Drop him!" Members point out how S is not getting the right kind of support from his friend and friend's family and that his friend and friend's family appear to be plunging into deeper crisis and chaos, apparently without doing anything to stop it.

A brief video clip showing a one-year-old toddler's joyful play with her mother was used to illustrate that MBGT-i is founded on the universal desire to be understood and to understand one another. Watching the video clip, while considering this, members appeared activated to become more involved with each other, and with the wider outside world. This developmentally exciting moment directly preceded members' sharing of more extensive, detailed descriptions of the current problems they were facing – some interpersonal, some intrapsychic, and some existential. As the group progressed, members' disclosures of their current dilemmas in living became more pronounced and detailed.

In the last group session, Facilitator asked members what they had liked best about the group; and what had helped the most. Members' answers included:

"I felt like I could interact with other people better and more comfortably;" "It really helped me to create a container and put my voices into it for a while;" "I liked the faces! (feeling recognition exercise);" "Yeah, seeing how we had different guesses about what the faces showed, and any of them could have been right;" "The videos of people having situations with each other (SCIT videos). Those really made it easier to talk about what happens with people."

"I realized that this simple idea of mentalizing is very deep, it just grows and grows the more you apply it to things going on around you every day. That has helped me slow down and has much better patience with myself and others, and to stop jumping into doing new things, but to stop and wait and see what actually happened. There should always be this group."

Summary

Observed Findings that MBGT-i promotes mentalizing (as measured by the RFQ-8), and develops social cognition competency (as measured by the Staff Questionnaire), are suggested but certainly not conclusive. However, it appears that participants in MBGT-i became attached to the group and considered themselves "members." Transcripts of group session observations also suggest that affective expression and mentalizing of social interactions increased over time.

The pilot study evaluating the desirability of providing MBGT-i to SSOPD has more limitations than findings. Multiple flaws in the research design are evident. Participants in MBGT-i were not randomly selected, but consisted of volunteers and recruits of agency clients diagnosed with SSOPD. Also, a structured treatment program from the agency may account for group members' apparent improvements. The study did not include a control group comparison sample. Multiple measurements, initially intended, did not occur due to administrative constraints.

Despite the lack of scientific rigor in the pilot study, the MBGT-i model appears to merit further evaluation for the benefit of persons diagnosed with Schizophrenia Spectrum and other Psychotic Disorders. Considering that the RFQ 8 has not been previously used to measure change in clinical

trials, during the next pilot study different outcome measures will be utilized e.g., Hinting Tasks Test; BLERT [24]. In addition, it is hoped that a separate Treatment as Usual (TAU) group can be matched to provide a comparison cohort and that multiple data collection measure points can be obtained.

Discussion

MBGT-i follows the central purpose (of all mentalization-based treatments) of promoting patients' robust and flexible mentalizing; but adapts it for our SSOPD patients. The MBGT approach developed in the pilot study utilizes group cohesion and peer support to help patients accept and process psychoeducational components, while learning from, and being treated through, numerous interactional exercises. These exercises repeatedly prompt them through: identifying and recognizing emotions; taking another person's perspective; and flexibly assessing more complex social situations with a focus on affective experience [25-29].

The group of six young to middle-aged adults with diagnoses of SSOPD show that they are fully able to participate in a mentalization-based group therapy, structured to include substantive psychoeducational components and interactional activities designed to prompt mentalizing and the development of social understanding. Group members shared they liked the materials and activities. The fact that the participants in MBGT-i demonstrated high acceptance of this approach and no adverse effects were found, suggests that further study of MBGT-i has merit [30-32].

Follow-up with agency yielded positive evaluations. After the pilot study, the agency's Clinical Director shared, "Everything we heard was positive about the group and the clients' reactions were very positive. Clients' mutual support for each other was impressive." This view was shared by clients' clinicians and case managers. One of the clinical team also reported that a MBGT-i group member has become able to do more valuable work with her individual therapist, which appears directly related to her opening up in MBGT-i. The group participant has been able to explain her mental illness to her family and receive more understanding and support [33,34].

Schilbach et al. suggest that dysfunction of the Mirror Neuron System (MNS) and the Mentalizing Network (MENT) underlie social difficulties in schizophrenia. MRI scans find decreased functional connectivity in patients as compared to controls [34].

Conclusion

Our patients with schizophrenia-spectrum and other psychotic disorders have always needed additional treatment. Even though the psychosocial recovery model, the evolution of psychopharmacological approaches, and cognitive behavior therapy have offered substantial benefits, an important aspect of our patients' suffering has not been targeted and addressed directly. That overlooked aspect is our patients' difficulty with social relationships, from the point of earliest attachments, leading up to contemporary interactions with peers and staff members. Our patients have struggled with making sense of, and responding competently to, interpersonal situations. This is because they are unable to recognize their own thoughts and feelings, to fluently perceive another person's perspective, and to develop social understanding.

For many decades, efforts to address the causes of distress, despair, confusion, and loss of control represented in mental illness, have been directed by the medical model and ideas of genetic and neurobiological etiology, and psychopharmacological intervention. The other side of this coin may well be the origins of dysfunction as seen in human development, specifically within evolutionarily-determined attachment schema. Growing evidence indicates that there are essential links between the concepts of metacognition, Theory of Mind (ToM), and mentalization based therapy, both theoretically and empirically, in that they refer to a social understanding which is impaired in persons with schizophrenia and related disorders: specifically, the capacity to represent self and other in one's mind. The research also supports that this capacity is etiologically founded in early attachments.

The ideal laboratory in which to both evaluate and treat deficits in social understanding is a group therapy format in which patients are provided live interactions for socialization and psychoeducation. Mentalizing is intrinsic to interactions and group process therapeutic factors. Mentalization-Based Group Therapy-Interactional (MBGT-i) for patients with Schizophrenia-Spectrum and other Psychotic Disorders (SSOPD) uses interpersonal relationships to heal self and other representational disturbances. Group approaches are so widespread that their unique advantages are at times easily overlooked. It's important to emphasize how and why MBGT-i can help group participants in ways that other approaches can't match.

MBGT-i shows how interpersonal situations can be differently perceived; illustrates how active mentalizations are in interactions; and depicts how our minds work in social understanding. Self-awareness is developed and connections between feelings, thoughts, and behaviors made. Group members are encouraged to consider their own reactions, and to better understand themselves and their relationships with others. The goals are to increase mentalizing behavior, the ability to self-reflect, and the capability to take a different person's perspective. These are proven capacities to increase a patient's insight into his mental illness.

Kanas proposes the integrative model for group therapy that combines the best from three approaches: educative, psychodynamic, and interpersonal. The guiding principles of his model are as follows:

- Major goal is to learn ways of coping with psychotic symptoms and psychosocial strategies (including medication) are given.
- Discussion topics focus on the needs of schizophrenic patients.
- Therapists create a safe environment through the group structure (which is incorporated into the discussions by the therapists' interventions).
- Groups are discussion oriented and discussions are open (i.e., patient generate the topics and there are no lectures or formal structured exercises).
- Long-term maladaptive problems may be examined in reference to current problems.
- Ego functions are strengthened.
- Major goal is to become less isolated and improve relationships with others.
- Members are encouraged to interact with each other during the sessions.
- Maladaptive interactions are examined in the here and now of the group.

MBGT-i as presented in the current study matches the guiding principles set forth by Kanas for group therapy for persons diagnosed with schizophrenia. In view of the positive reactions of the clients who participated in MBGT-i, the favorable opinions of the clients' clinicians in the agency, and the indications of improvement associated with the 12 sessions of MBGT-i, another program evaluation study will be conducted with another sample.

References

1. Kanas, Nick. "Group therapy with schizophrenics: A review of controlled studies." *Int J Group Psycho* 36(1986): 339-351.
2. Gumley, Andrew and Matthias Schwannauer. *Staying well after psychosis: A cognitive interpersonal approach to recovery and relapse prevention*. *John Wiley & Sons* (2006).

3. Korver, Nieberg N, Berry K, Meijer CJ and De Haan L. "Adult attachment and psychotic phenomenology in clinical and non-clinical samples: A systematic review." *Psychol Psychother* 87(2014): 127-154.
4. Drake, Robert E and Lloyd I Sederer. "The adverse effects of intensive treatment of chronic schizophrenia." *Compr Psychiatry* 27(1986): 313-326.
5. Geczy, B Sultenfuss J. "Group psychotherapy on state hospital admissions wards." *Int J Group Psychother* 45(1995): 1-15.
6. Donald S, Strassberg, Howard B Roback, and Kenneth N Anchor and Stephen I Abramowitz. "Self-disclosure in group therapy with schizophrenics." *Arch Gen Psychiatry* 32(1975): 1259-1261.
7. Weiner, Myron F. "Outcome of psychoanalytically oriented group psychotherapy." *Group* 8(1984): 3-12.
8. Frances, Shawyer, Andrew Mackinnon, John Farhall, and Tom Trauer, et al. "Command hallucinations and violence: Implications for detention and treatment." Psychiatry, *Psychology and Law* 10(2003): 97-107.
9. Ramona, Sterea. "The relationship between social cognition and functional outcomes in schizophrenia." *Procedia Soc Behav Sci* 187 (2015): 256-260.
10. Anne Kathrin, J Fett, Wolfgang Viechtbauer, David L Penn, and Jim van Os, et al. "The relationship between neurocognition and social cognition with functional outcomes in schizophrenia: A meta-analysis." *Neurosci Biobehav Rev* 35(2011): 573-588.
11. Green, Michael F, David L Penn, Richard Bentall, and William T Carpenter, et al. "Social cognition in schizophrenia: An NIMH workshop on definitions, assessment, and research opportunities." *Schizophr Bull* 34(2008): 1211-1220.
12. Fernando, Lana, Susana Marcos, Laia Mollà, and Ana Vilar, et al. "Mentalization based group psychotherapy for psychosis: A pilot study to assess safety, acceptance and subjective efficacy." *Int J Psychol Psychoanal* 1(2015): 1-6.
13. Christopher, D Frith. "The cognitive neuropsychology of schizophrenia." Hove, UK: *Psychology Press* (1992).
14. Ralphs, Adolphs. "Social cognition and the human brain." *Trends Cogn Sci* 3(1999): 469-479.
15. Baron Cohen, Simon, Howard A Ring, Sally Wheelwright and Edward T Bullmore, et al. "Social intelligence in the normal and autistic brain: An fMRI study." *Eur J Neurosci* (1999): 1891-1898.
16. Cohen, Baron and Simon Howard. A Ring and Sally Wheelwright, et al. "Social intelligence in the normal and autistic brain: An fMRI study." *Eur J Neurosci* 11(1999): 1891-1898.
17. Happé, Francesca, Hiram Brownell, and Ellen Winner. "Acquiredtheory of mind'impairments following stroke." *Cognition* 70(1999): 211-240.
18. Vibeke, Bliksted, Chris Frith, Poul Videbech, and Birgitte Fagerlund, et al. "Hyper-and hypomentalizing in patients with first-episode schizophrenia: fMRI and behavioral studies." *Schizophr Bull* 45(2019): 377-385.
19. McGauley, Gill, Jessica Yakeley, Andrew Williams, and Anthony Bateman. "Attachment, mentalization and antisocial personality disorder: The possible contribution of mentalization-based treatment." *Eur J Pharmacol* 13(2011): 371-393.
20. Brent, Benjamin K, Daphne J Holt, Matcheri S Keshavan, and Larry J Seidman, et al. "Mentalization-based treatment for psychosis: Linking an attachment-based model to the psychotherapy for impaired mental state understanding in people with psychotic disorders." *Isr J Psychiatry Relat Sci* 51(2014): 17-24.
21. Moritz, Steffen and Todd S Woodward. "Metacognitive training in schizophrenia: From basic research to knowledge translation and intervention." *Current opinion in psychiatry* 20(2007): 619-625.
22. Carolin, Eichner, and Fabrice Berna. "Acceptance and efficacy of metacognitive training (MCT) on positive symptoms and delusions in patients with schizophrenia: A meta-analysis taking into account important moderators." *Schizophr Bull* 42(2016): 952-962.
23. David L, Roberts, David L Penn, and Dennis R Combs. "Social Cognition and Interaction Training (SCIT): Group psychotherapy for schizophrenia and other psychotic disorders, clinician guide." *Oxford University Press* (2015).
24. Pinkham, Amy E, David L Penn, Michael F Green, and Philip D Harvey. "Social cognition psychometric evaluation: Results of the initial psychometric study." *Schizophr Bull* 42(2016): 494-504.
25. Anthony W, Bateman, and Peter Ed Fonagy. "Handbook of mentalizing in mental health practice." *Am J Psychiatry* (2012).
26. Konstantakopoulos, George, Dimitris Ploumpidis, Panagiotis Oulis, and Panayiotis Patrikelis, et al. "The relationship between insight and theory of mind in schizophrenia." *Schizophr Res* 152(2014): 217-222.
27. Kanas, Nick. "Group therapy for patients with chronic psychotic disorders." *Int J Group Psycho* 49 (1999): 413-416.
28. Brent, Benjamin K, and Peter Fonagy. "A mentalization-based treatment approach to disturbances of social understanding in schizophrenia." In Social cognition and metacognition in schizophrenia: *Academic Press* 15(2014): 245-259.
29. Fonagy, Peter, Bateman Anthony W, Luyten Patrick "Introduction and overview In AW Bateman & P Fonagy." Handbook of mentalization in mental health practice." Washington DC: *American Psychiatric Publishing, Inc* (2012): 3-42.
30. Peter, Fonagy, Patrick Luyten, Alesia Moulton Perkins and Ya-Wen Lee, et al. "Development and validation of a self-report measure of mentalizing: The reflective functioning questionnaire." *PLoS One* 11(2016): e0158678.
31. Christopher D, Frith and Rhiannon Corcoran. "Exploring 'theory of mind'in people with schizophrenia." *Psychol Med* 26 (1996): 521-530.
32. Karterud, Sigmund. "Mentalization-Based Group Therapy (MBT-G): A theoretical, clinical, and research manual." *OUP Oxford* (2015).
33. Penn, David L, David L Roberts, Dennis Combs, and Abram Sterne. "Best practices: The development of the social cognition and interaction training program for schizophrenia spectrum disorders." *Psyc services* 58(2007): 449-451.
34. Leonhard, Schilbach, Birgit Derntl, Andre Aleman, and Svenja Caspers, et al. "Differential patterns of dysconnectivity in mirror neuron and mentalizing networks in schizophrenia." *Schizophr Bull* 42(2016): 1135-1148.

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