

Assessment and Treatment Planning for Schizotypal Personality Disorder: A Metacognitively Oriented Point of View

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Objective: The aim of this study was to pilot test a novel assessment and treatment plan for patients with a schizotypal personality disorder by integrating the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.) alternative model of personality disorders, metacognitively oriented psychotherapies, and recovery approaches. **Method:** I recruited 12 patients diagnosed with schizotypal personality disorder. I report results from the global assessment including measures on symptoms, maladaptive traits, Big Five personality traits, schizophrenia proneness, and metacognition. I also describe how I planned treatment to promote an individualized understanding of a person's agenda and recovery. The treatment plans were also evaluated through in-depth qualitative interviews at the end of the intervention. Interviews were analyzed through a phenomenological framework and a computer-aided qualitative analysis software. **Results:** Assessment results and qualitative interviews highlight the importance of a multilevel, progressive treatment plan aimed at considering the personality functioning from a recovery-oriented, nonpathologizing approach. On 1 hand, an assessment that focuses on both healthy and maladaptive traits fosters a progressive redefinition of the therapeutic agenda. On the other hand, a constant and recursive evaluation of metacognition and personality traits offers a treatment strategy that supports my core assumption that recovery from schizotypal personality disorder is possible. **Conclusions and Implications for Practice:** A twofold focus on personality traits and metacognition seems to represent a viable strategy for treating patients with schizotypal personality disorder. A metacognitively oriented rehabilitation may be a flexible, personalized and effective approach toward recovery.

Impact and Implications

This study suggests that schizotypal personality disorder is treatable. Additionally, it advances the idea that a metacognitively oriented program may be effective in promoting recovery, defined as the remission from the disorder and the achievement of the quality of life pursued by a single patient.

Keywords: alternative model of personality disorders, metacognition, recovery, schizotypal personality disorder, schizotypy

Schizotypal personality disorder (SPD) stands at the crossroads between a stable personality disorder (PD) and a milder manifestation of schizophrenia (Raine, Lencz, & Mednick, 1995). It reflects a complex and maladaptive pattern of personality that has been conceived as being composed of either four (Claridge et al., 1996) or three (Reynolds, Raine, Melling, Venables, & Mednick, 2000) facets. The alternative model of personality disorders (AMPD) has tried to summarize all these factors, focusing on “impairments in the capacity for social and close relationships and eccentricities in cognition, perception, and behavior that are associated with distorted self-image and

incoherent personal goals and accompanied by suspiciousness and restricted emotional expression” (American Psychiatric Association, 2013, p. 769).

Although SPD has been extensively studied as a possible risk factor or precursor for schizophrenia from an experimental psychopathological point of view (Lenzenweger, 2010), little is known about effective interventions aimed at promoting rehabilitation and recovery. A recent systematic review included only three studies that are focused on psychosocial intervention for SPD patients (Kirchner, Roeh, Nolden, & Hasan, 2018): (a) A randomized controlled trial reported the effectiveness of an integrative approach (antipsychotic drugs, psychoeducation, and social skills training) in reducing the risk of a transition to psychotic disorders (Nordentoft et al., 2006); (b) an uncontrolled trial highlighted a significant reduction of general symptomatology after a psychodynamic group intervention for inpatients (Karterud et al., 1992); and (c) a case study described a social skills training for an obsessive-compulsive disorder patient with comorbid SPD, reporting a partial obsessive-compulsive symptom reduction (McKay & Neziroglu, 1996). Researchers examining pharmaceutical interventions

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found low to moderate pieces of evidence of the benefit of second-generation antipsychotics (Jakobsen et al., 2017).

More recently, a two-case series explored the effectiveness of metacognitively oriented psychotherapies (MOPs) for SPD, reporting a full recovery after 6 months: Patients fulfilled the SPD criteria neither at the end of the intervention nor at 1-month follow-up (Cheli, Lysaker, & Dimaggio, 2019). To the best of my knowledge, this is the only study explicitly describing a specific SPD intervention target (i.e., dysfunctions in metacognition) and consequently pilot-testing two tailored psychotherapies: metacognitive reflection and insight therapy (MERIT; Lysaker & Klion, 2018) and metacognitive interpersonal therapy (MIT; Dimaggio, Montano, Popolo, & Salvatore, 2015). *Metacognition* refers to the complex pattern of processes that allow people to describe and reflect upon their own and others' mental states (Dimaggio & Lysaker, 2010). Patients with severe mental illnesses report significant metacognitive dysfunctions, so they may be unaware of their own emotions, unable to see their own thoughts as subjective, and unable to form complex representations of themselves and others (Arnon-Ribenfeld, Hasson-Ohayon, Lavidor, Atzil-Slonim, & Lysaker, 2017; Semerari et al., 2014). In the last few years, MERIT and MIT have been successfully delivered, respectively, to persons with other personality disorders and schizophrenia spectrum disorders, reporting a reduction of symptoms and metacognitive dysfunctions and demonstrating encouraging results in terms of recovery (De Jong et al., 2019; Gordon-King, Schweitzer, & Dimaggio, 2018; Popolo et al., 2019; Vohs et al., 2018). Despite the small sample size of the only study available (Cheli et al., 2019), MOPs might represent the core of an effective rehabilitation program for SPD patients. Existing data report a significant metacognitive impairment in SPD patients (Cheli et al., 2019; Semerari et al., 2014) that, in turn, is seemingly associated with a high level of psychopathological severity. Indeed, metacognitive functioning may represent a core element of PDs' pathology and a predictor of psychotherapeutic improvement (Carcione et al., 2019).

The most commonly used methodology for assessing metacognition in a clinical context is the Metacognition Assessment Scale—Abbreviated (MAS—A; Lysaker et al., 2005). Such a methodology is inspired by the work of Semerari et al. (2014) and is based on the integration of different theoretical and research studies on psychopathology and human development. The MAS—A represents a coding system for rating the level of metacognitive functioning in a person's narrative through four specific subscales: Self-Reflectivity (S), Understanding Others' Mind (U), Decentration (D), and Mastery (M). Studies on the MAS—A have extensively reported how impaired metacognitive functioning is associated with a lower level of functional competence (Lysaker et al., 2011), and more generally with a disrupted ability to engage in a meaningful life (Lysaker & Dimaggio, 2014).

The objective of this pilot mixed-methods study was to report preliminary data on the feasibility and safety of a metacognitively oriented program aimed at the recovery of SPD patients. The rehabilitation program I report in the present article is based on a few assumptions that are rooted in different recovery approaches. The first assumption, shared with MERIT, is that "people with serious mental illness can and do recover" (Lysaker & Klion, 2018, p. 35). This statement implies that psychosocial rehabilitation, especially with complex and maladaptive organizations of personality such as SPD, has to be construed with the aim of

achieving a person-centered recovery rather than one of solely controlling and reducing high-risk symptoms or behaviors (Davidson et al., 2005). The second assumption is that schizotypal traits can be seen as "fully dimensional in nature" (Kwapil & Barrantes-Vidal, 2015, p. S367); that is, I can maintain that SPD facets (e.g., oddity, eccentricity) may be healthy in certain contexts but potentially become maladaptive manifestations of psychopathology in others. The third assumption is that a treatment for severe mental illness should integrate different modalities (e.g., individual and group psychotherapy; interventions with families; medication) to be differentially used to promote adaptive personal and interpersonal strategies (Perris & Skargelind, 1998). The fourth assumption is that the psychopathological core of SPD and consequently of its intervention might be the patients' dysfunctions in metacognition (Cheli et al., 2019; Semerari et al., 2014). This core statement implies that when metacognitive functioning is recovered, recovery might be achieved. The fifth assumption calls for the use of experiential techniques as a way of improving access to subjective experience and especially to the healthy self (Dimaggio, Ottavi, Popolo, & Salvatore, in press). The sixth assumption focuses on the need to consider how early traumatic or critical interpersonal experiences may interact with the ongoing psychopathology and adherence to treatment (Gumley & Schwannauer, 2006). The seventh and final assumption reminds the therapist that the patient is an active agent of both illness and recovery. A therapist is not the expert in charge of defining

how client's mind works, nor is it his responsibility to make sure that it works correctly, but only that he should provide the kind of warm and responsive human setting in which the client can best solve his own problems. (Kelly, 1969, p. 81)

Method

Sample

Twelve consecutive patients ($M = 41.67\%$) with a diagnosis of SPD according to AMPD (First, Skodol, Bender, & Oldham, 2018) were recruited through a convenience sampling (see Table 1). The overall sample comprised two subgroups: patients who had completed either a 6-month intervention (Group A; $n = 8$) or a 12-month intervention (Group B; $n = 4$). All the subjects were referred to the Center for Psychology and Health, Tages Charity. Patients did not receive any credit or benefit in return for their participation, aside from the intervention itself. The study was conducted according to the Declaration of Helsinki (Ref. No. 02-2019/110119), and the institutional review board approved the protocol.

Measures

MAS—A (Lysaker et al., 2005). This is a coding system for assessing metacognitive capacity by determining the highest level of metacognitive activity in a person's answers at the Indiana Psychiatric Illness Interview (IPII; Lysaker, Clements, Plascak-Hallberg, Knipscheer, & Wright, 2002), a widely used research interview aimed at eliciting individuals' narrative understanding of their psychiatric difficulties. The interviews at IPIIs were recorded, transcribed, and then analyzed according to the MAS—A. The

Table 1
Descriptives of the Sample at Baseline

Categories	Overall sample (<i>n</i> = 12)	Group A (<i>n</i> = 8)	Group B (<i>n</i> = 4)
Length of the intervention		6 months	12 months
Age: <i>M</i> (<i>SD</i>)	23.25 (4.33)	24.5 (4.50)	22.62 (4.40)
Sex: <i>n</i> (%)			
Male	5 (41.67)	3	2
Female	7 (58.33)	5	2
Education: <i>n</i>			
Middle school or less	2	0	2
High school	8	7	1
College	0	0	0
Advanced degree	2	1	1
Housing situation			
Living alone	2	1	1
Living with roommates	3	3	0
Living with partner or friends	3	2	1
Living with family	4	2	2
Annual family income ^a			
<15,000	2	0	2
15,000–35,000	5	4	1
35,000–70,000	4	3	1
>70,000	1	1	0
Relationship status			
Single	8	4	4
Stable relationship ^b	4	4	0
Married	0	0	0
General symptom index (SCL-90-R): <i>M</i> (<i>SD</i>)	95.20 (4.78)	94.67 (6.12)	95.95 (2.34)
Schizophrenia proneness ^c : <i>M</i> (<i>SD</i>)	43.41 (16.39)	40.25 (15.88)	49.75 (17.08)
Personality functioning (SCID-5-AMPD): <i>M</i> (<i>SD</i>)			
Identity	2.5 (.67)	2.25 (.70)	3 (0)
Self-direction	2.75 (.62)	2.25 (.53)	3.25 (.50)
Empathy	2.25 (.96)	2.37 (.91)	2 (1.15)
Intimacy	2.75 (0.96)	2.75 (1.03)	2.75 (.95)
Metacognition (MAS-A): <i>M</i> (<i>SD</i>)			
Self-Reflectivity	4 (.85)	4.12 (.99)	3.75 (.50)
Understanding Others' Mind	3.33 (.98)	2.87 (.64)	4.25 (.95)
Decentration	1 (.73)	1.12 (.83)	0.75 (.50)
Mastery	2.25 (.75)	2.25 (.88)	2.25 (.50)
Five-factor model (NEOPI-3): <i>M</i> (<i>SD</i>)			
Neuroticism	69.90 (5.57)	69.84 (6.05)	70.02 (5.32)
Extraversion	41.06 (15.29)	41.85 (17.87)	39.47 (10.35)
Openness to experience	58.26 (9.17)	56.90 (10.03)	60.97 (7.67)
Agreeableness	52.84 (10.02)	50.16 (10.45)	58.20 (7.46)
Conscientiousness	41.84 (10.10)	43.15 (10.27)	39.23 (10.69)

Note. SCL-90-R = Symptoms Check List-90—Revised; SCID-5-AMPD = Structured Clinical Interview for the DSM-5 Alternative Model for Personality Disorders; MAS-A = Metacognition Assessment Scale—Abbreviated; NEOPI-3 = Neo-Personality Inventory 3; SPI-A = Schizophrenia Proneness Instrument—Adult Version.

^a Gross income of the family unit of the patient in euros (US\$ = 1.10). If the patient lives without a family's or a partner's support, the income refers to their own. ^b If it lasts more than one year. ^c Based on SPI-A total score.

MAS-A comprises four scales that are conceptualized as involving increasingly complex and less fragmented activities and can be scored on specific levels of functioning: S (score: 0–9) describes the ability to form increasingly complex and integrated representations of one's self; U (score: 0–7) refers to the ability to form increasingly complex and integrated representations of other persons; D (score: 0–3) refers to the extent to which a person is capable to see the world as understandable from different perspectives; and M (score: 0–9) describes the extent to which persons use

metacognitive knowledge to respond to challenging events. The individual subscales can be summed to create a total score with a range from 0 to 28.

Neo-Personality Inventory 3 (NEOPI-3; McCrae & Costa, 2010). This is composed of 240 items and evaluates basic five factors: neuroticism (N; sensitive or nervous vs. secure or confident), extraversion (E; outgoing or energetic vs. solitary or reserved), openness to experience (O; inventive or curious vs. consistent or cautious), agreeableness (A; friendly or compassionate

vs. challenging or detached), conscientiousness (C; efficient or organized vs. easygoing or careless). Each factor is defined by six specific facets, and the scores are converted into standardized *T* points. The five factors have shown (McCrae & Costa, 2010) a high level of reliability ($N = .90$, $E = .88$, $O = .88$, $A = .81$, and $C = .91$), as do the single facets (range = .60–.78).

Qualitative interview. A specifically designed semistructured interview was intended to explore how patients evaluate the program. Four questions were included: (a) How do you evaluate the assessment procedure? (b) How do you evaluate the treatment? (c) Which part of the program was the most useful and which one was the least useful for you? (d) Do you think you have achieved the quality of life you desired? Can you tell me something about that?

Schizophrenia Proneness Instrument—Adult Version (SPI–A; Schultze-Lutter, Addington, Ruhrmann, & Klosterkötter, 2006). This is a semistructured interview that assesses disturbances suggesting a risk factor for developing psychosis. A dimensional total score can be produced by summing scores for each domain. The SPI–A has reported good reliability in predicting a psychotic episode (specificity = .83).

Structured Clinical Interview for the DSM–5 Alternative Model for Personality Disorders (SCID-5-AMPD; First et al., 2018). This is a semistructured diagnostic interview for the assessment of the personality pathology as presented in the AMPD. It composed of three modules, allowing one to score the Global Level of Personality Functioning (GLPF; range = 0–4), maladaptive traits domains and facets, and six specific PDs. The interrater reliability is good, with an intraclass correlation coefficient ranging from .89 to .95 for domains and .96 for total GLPF.

Symptoms Check List-90—Revised (SCL-90–R; Derogatis, 1994). This measure is widely used for self-assessment of psychological distress and multiple psychopathological dimensions. It consists of 90 items that investigate nine psychopathological dimensions and a general symptom index (GSI) scored in *T* points. The SCL-90–R have reported (Derogatis, 1994) good internal consistency (whole scale $\alpha = .98$; split-hal coefficient).

Data Collection and Assessment Procedure

Once a patient arrived at the center they were assessed through a standard psychometric battery (sociodemographic data; SCL-90–R; NEOPI-3), a general clinical interview, and the SCID-5-AMPD. In a second session, after the diagnosis of SPD had been confirmed, I delivered the MAS–A and the SPI–A. All these data were collected again at the end of both the 6-month (Group A) and the 12-month (Group B) intervention. The qualitative interview was delivered, for the specific purpose of the present research, solely at the end of the intervention. I used a parallel convergent mixed-methods design in which qualitative and quantitative data were collected and analyzed separately and then merged to pursue the research's objectives (Plano Clark & Ivankova, 2006). Personality was assessed in different ways. Stable personality traits were assessed according to the five-factor model (FFM), as a way to explore the nonpathological structure of personality (McCrae & Costa, 2005). Maladaptive traits and PDs were assessed according to the AMPD (American Psychiatric Association, 2013), as a way to explore the pathological organization of personality (Widiger, Simonsen, Sirovatka, & Regier, 2006). Metacognition was evalu-

ated through the MAS–A, whereas the risk for adverse psychotic events was evaluated through the SPI–A. The mixed-methods approach allowed for the formulation of a definition of recovery (Hasson-Ohayon, Roe, Yanos, & Lysaker, 2016) that integrates both quantitative, researcher-oriented measures (i.e., questionnaires and scores on semistructured interviews) and qualitative, person-centered measures (i.e., qualitative interviews). Thus, I define *recovery* as the cumulative result of both the absence of a personality pathology (as dimensionally assessed by the GLPF) and the achievement of the desired level of quality of life (QoL; as stated in patients' answers at the interview, especially to Question 3).

Treatment Plan

The core of the present metacognitively oriented program for SPD is an individual therapy targeting the metacognitive dysfunctions reported by each patient. The MOP is a component (granted, it is the one I presume to be the most effective) of an integrated, modular, and multidisciplinary rehabilitation program aimed at a full recovery of the patient (see Table 2). The construct of integration not only refers to the idea of a coherent treatment plan that is composed of different services and resources but also to the need for including the unique perspective of the patient in all of the treatment's phases and actions. I maintain that a rehabilitation-oriented integration implies that "the person is appropriately engaged and socialised to each of the steps along the way, including exploring and explaining how the collaborative relationship works" (Crowe, Deane, & Oades, 2012, p. 82). Thus, the components to be integrated are the result of not just an expert-guided decision but rather an authentic collaboration. From this perspective, metacognition turns out to be the specific psychopathological target of both psychotherapy (Cheli et al., 2019) and the whole recovery, "using interventions that are tailored and targeted to the patient's current level of functioning" (Lysaker & Klion, 2018, p. 6).

I delivered weekly sessions that have been tested in these three formats: (a) a 6-month MERIT intervention ($n = 4$); (b) a 6-month MIT intervention ($n = 4$); and (c) a 12-month intervention composed of a first 6-month module based on MERIT and a second 6-month module based on MIT ($n = 4$). Thus, Group A (a–b) included four patients accessing a MERIT intervention and four patients accessing a MIT intervention, whereas all of Group B's patients accessed the mixed MERIT–MIT intervention (c). The allocation of a single patient to a specific treatment plan was performed according to three specific criteria (see below), based in turn on previous studies (Cheli, 2019a; Cheli, 2019b; Cheli et al., 2019).

Treatment Criteria

Psychopathological severity. More severe patients, defined by a lower level of self-reflectivity, with MAS–A ($S \leq 3$) and a higher level of schizophrenia proneness with SPI–A (total score ≥ 50), were referred to the 6-month MERIT intervention, whereas less severe patients were referred to the 6-month MIT intervention. Because MERIT was specifically designed for patients with psychosis (Lysaker & Klion, 2018) and MIT for PD patients (Dimaggio et al., 2015), I believed that the former may be

Table 2
Components of the Program

Components	Description
Integrated assessment General symptoms Schizophrenia proneness Metacognitive functioning Maladaptive personality traits Stable personality traits	Emphasis on an integrated assessment aimed at reporting symptoms and metacognitive dysfunctions and at exploring stable healthy traits and maladaptive organizations of personality
Multidimensional evaluation Multidisciplinary assessment Team supervision Community rehabilitation	Aimed at planning an individualized, integrated, and modular rehabilitation program based on multidisciplinary teamwork
Individual therapy MERIT MIT Tailored MOP	Weekly sessions of MOPs, with different formats tested: solely MERIT or MIT, tailored sequence of MERIT (first) and MIT (second)
Psychiatric treatment Routine evaluation Pharmacological treatment	Routine psychiatric evaluation inside the treatment team; if needed, specific pharmacological treatments
Group therapy MBCT for internalizing organization MBCT for externalizing organization	Different possible MBCT programs for internalizing or externalizing organizations of personality
Behavioral modules CBT for insomnia Nutritional counseling Exposure therapy Medication Self-management	If necessary and agreed-upon by the patient, possible employment of a specific behavioral module to target a single relevant problem, such as insomnia, tic management, medication management, etc.
Interventions with families Routine sessions Tailored modules	Standard sessions to reduce conflicts and promote collaboration, with specific family interventions if needed
Community referral Legal counseling Welfare counseling Physical specialists	To promote a person-centered recovery, possible activation of a community network of different services (mostly pro bono)

Note. MERIT = metacognitive reflection and insight therapy; MIT = metacognitive interpersonal therapy; MOPs = metacognitively oriented psychotherapies; MBCT = mindfulness-based cognitive therapy; CBT = cognitive-behavioral therapy.

better suited for more severe patients. As previously reported, Group A ($n = 8$) was composed of four MERIT patients and four MIT patients.

Length of the intervention. To explore an effective treatment dose, I referred a subgroup (Group B) of severe patients to a tailored MOP composed of an initial 6-month MERIT phase and a subsequent 6-month MIT phase. The sequence of MERIT and then MIT was defined based on the assumption of the previous criterion and that of MERIT itself stating the need for disorganized patients to be progressively supported in increasing their metacognition. For ethical reasons, the patients who had completed a 6-month intervention (either MERIT or MIT in Group A) could access another 6-month treatment, as necessary.

Components of the program. Specific components (e.g., group intervention, medication; see Table 2) were defined through a team evaluation based on need and then proposed to the patients themselves. Once a patient agreed with the intervention, it was performed. All patients had access to an integrated assessment at baseline (see Table 1), routine multidisciplinary evaluations, and individual psychotherapy. I also proposed routine standard sessions with families (one during the assessment phase, one every 3 months), if patients agreed to them. Based on the symptoms and issues that arose, I proposed either pharmacological treatments, group interventions, or behavioral modules. The rehabilitation

program and its steps were recursively socialized and coconstructed together with the patient.

Analysis

I analyzed quantitative data through standard descriptive measures and explored, through paired-samples t tests, differences between pre- and postassessment. Other single-case methodologies, such as defining a threshold of the reliable change index (RCI; Jacobson & Truax, 1991), were applied. Qualitative data were analyzed through two consecutive approaches. A framework analysis was used to explore the data and identify the possible themes (Ritchie & O'Connor, 2003). Second, a computer-aided qualitative data analysis software (CAQDAS; R version 3.3.1) was used to perform a hierarchical cluster analysis based on a previous correspondence analysis of responses' words (Krippendorff, 2004).

Results

The Course of the Treatment

All patients completed the assessment procedures and were routinely evaluated by the clinic's team to tailor an individualized treatment plan and supervise the chosen MOPs and modules (see

Table 2). Three patients received a pharmacological treatment (second-generation antipsychotics), four received a specific behavioral module, and 10 opted into routine sessions with at least one family member. No one decided to participate in a group intervention, whereas six were referred to different community services.

Quantitative Outcomes

All the patients completed the scheduled treatment plan. There was no dropout, and only one patient skipped more than 10% of the psychotherapy sessions without advising the therapist. The same patient interrupted the psychopharmacotherapy without an agreement with the psychiatrist. The following unwanted events happened (see Table 3): two psychotic episodes in the early phases of two treatments and two mild self-harm behaviors (one concurrent with a psychotic episode; one after a layoff).

All the patients reported baseline high values on the GSI ($M = 95.20$, $SD = 4.78$) and SPI-A ($M = 43.41$, $SD = 16.39$) total scores. The more impaired SCID-5-AMPD scales were self-direction ($M = 2.75$) and intimacy ($M = 2.75$). MAS-A scores highlighted significant metacognitive dysfunctions on all the scales. The factor with the highest mean value on the NEOPI-3 was N ($M = 69.90$), whereas the lowest ones were E ($M = 41.06$) and C ($M = 41.84$). All that said, the mean standard deviations of the NEOPI-3 scales were significantly high: from 0.5 standard deviation (N), to 1 (O, C), to even 1.5 standard deviations (E).

At the end of the intervention, all patients showed a reliable change ($RCI \geq 1.96$) on the GSI. In the whole sample ($n = 12$), the difference in GSI scores between initial assessment ($M = 95.20$, $SD = 4.78$) and the assessment at the end of the treatment ($M = 73.01$, $SD = 12.24$) was significant, $t = 5.85$; $p < .001$; $df = 10$. Ten (83.34%) patients in the overall sample, six (75%) in the 6-month intervention subgroup, and four (100%) in the 12-month intervention subgroup reported a score below 2 on the GLPF; that is, they were no longer fulfilling the criteria for a PD. When comparing GSIs between the 6-month intervention subgroup ($M = 80.89$, $SD = 4.11$) and the 12-month intervention subgroup ($M = 57.25$, $SD = 3.67$) at the end of the treatment, a significant difference emerged, $t = 9.69$; $p < .001$; $df = 10$.

Table 3
Outcomes at the End of the Treatment

Outcomes	Overall sample ($n = 12$)		Group A ($n = 8$)		Group B ($n = 4$)	
	n	% (n)	n	% (n)	n	% (n)
Dropouts	0		0		0	
Psychotic episodes	2		1		1	
Suicidal attempts	0		0		0	
Self-harm behaviors	2		1		1	
Remission rate ^a		83.34 (10)		75 (6)		100 (4)
Recovery rate ^b		50 (6)		37.5 (3)		75 (3)

^a Patients who reported a remission of the schizotypal personality disorder, defined as a score below 2 at the Global Level of Personality Functioning (GLPF) of the Symptoms Check List-90—Revised (First, Skodol, Bender, & Oldham, 2018). I consider recovery as both the absence of a personality disorder (as defined by the GLPF) and the achievement of the desired level of quality of life (as defined by the patient at the qualitative interview). ^b Patients who were proven to be recovered.

Qualitative Outcomes

Most of the answers (91.66%) to Questions 1, 2, and 4 highlighted a positive evaluation of the treatment program in terms of patients' personal feelings of being supported and reaching desired outcomes. Six patients (50%) reported having achieved the level of QoL they yearned for. This value reached 100% for patients (four) in the 12-month intervention subgroup. Concerning Question 3, patients reported that the most valuable and helpful component of the program was the MOP (83.33%), whereas the less helpful ones were the behavioral modules (75%). A few patients (33.33%) also reported having experienced unwanted events (e.g., negative feelings, intrusive thoughts, significant distress) during experiential techniques.

By comparing and integrating the results of framework analysis and the CAQDAS, I found that a few significant events emerged. Due to the scarce number of narratives, the answers to all the four questions were pooled and analyzed together, so as to increase the significance of the results. The analysis highlighted three clusters among two dimensions distributed: The first one seemed to refer to a positive versus negative evaluation of the program, whereas the second seemed to refer to a general construct of feeling accepted versus feeling judged. The significant clusters were labeled as (a) *acceptance*, (b) *self-understanding*, and (c) *feeling forced*. *Acceptance* refers to the sense of feeling accepted; that is, to see how the other may recognize them as a significant interlocutor. This turned out to be the most recurrent theme in explaining what did work and what didn't in the treatment. This construct also seemed to be the contrasting pole of the social stigma of being odd, eccentric, or even mad. *Self-understanding* is related to the ability and possibility to make sense of one's own mind and experience. A core component of QoL is the recovery of this ability and consequently of the possibility of making personal choices. Finally, when the patients talked about the program's components or the daily experiences in negative terms, they described a sense of *feeling forced*, pressured to either act or react. Such pressure, in turn, has frequently been defined in terms of a threat that is expressed as a critical judgment against the patient and/or as something to defend oneself from.

Changes in Metacognition

Metacognition, as the presumed main target of the MOPs (Cheli et al., 2019), showed a significant change over time at MAS-A. At the end of the intervention, all patients achieved a good level of self-reflectivity ($S \geq 8$), awareness of the other ($U \geq 6$), and decentration ($D = 3$). Mastery, as the ability to respond and adjust to challenging events, still varied over time and among different mental states, even showing an increase at the final assessment ($M \geq 6$).

Discussion

The present study aimed to explore the feasibility and safety of a metacognitively oriented rehabilitation program specifically designed for the recovery of SPD patients. A few studies have tested interventions aimed at reducing symptoms or preventing adverse events (Karterud et al., 1992; McKay & Neziroglu, 1996; Nordoft et al., 2006). The described rehabilitation program was

construed by targeting metacognition on the basis of the effectiveness of MOPs that emerged in a previous case series (Cheli et al., 2019). Despite the low sample size, the data highlight promising results. There were neither dropouts nor adverse events (e.g., hospitalization, acute crises requiring an emergency room [ER] visit). The rate of recovery (defined as the absence of a PD and the achievement of the patient's desired QoL) was 50% in the overall sample (75% in Group B), and all subjects showed a reliable change ($RCI \geq 1.96$) in symptomatology (GSI). Moreover, the metacognitive functioning significantly increased over time, by the end of the intervention reporting high levels in at least three scales of the MAS–A (S, U, and D).

The results seem to confirm that recovery is a viable objective of a rehabilitation program for SPD. Unfortunately, the SPD complex pattern, and its interconnection with the schizophrenia spectrum, tends to be perceived as untreatable, increasing the social and internalized stigma. The patients reported in the interviews how the most therapeutic factor was acceptance, as the sense of feeling recognized as a significant interlocutor. Professionals should be aware of how “oddity” may be the patients' attempt to make their experience meaningful while facing cognitive, perceptual and interpersonal disorganization. In doing so, the professionals can really embody the theoretical assumption that recovery is possible.

To build-up the foundation of recovery, the proposed global assessment seems to be very useful. It integrates multilevel psychometric measures and semistructured interviews and enables a personalized understanding of a disorder mainly characterized by disorganized communication. Metacognitive functioning, as assessed by the MAS–A, underlined a significant impairment in all the scales (see Table 1). According to the existing literature on MAS–A (Lysaker et al., 2005; Lysaker & Dimaggio, 2014; Lysaker et al., 2011), such an impairment seemed to be correlated with both proneness to schizophrenia and PD severity as scored by the SPI–A and the SCID-5-AMPD, respectively. Future studies should explore these possible correlations and differences in metacognitive functioning between SPD, schizophrenia, and other PDs. With respect to the FFM, the present sample confirms how, on the one hand, SPD is characterized by high neuroticism and low extraversion (Kwapil, Barrantes-Vidal, & Silvia, 2008) and, on the other hand, its heterogeneity seems to not be conceivable by single factors or univocal patterns (Edmundson & Kwapil, 2013). I may assume that the FFM assesses a stable structure of personality traits that are potentially but not necessarily pathological (McCrae & Costa, 2005). This is coherent with the fully dimensional look at schizotypy, which implies that they are healthy patterns that eventually evolve into maladaptive ones such as SPD (Mason & Claridge, 2015).

The qualitative outcomes have highlighted how group interventions, experiential techniques, and psychopharmacotherapy were not appreciated, especially in the early phases. During the interviews, the patients described how they felt forced by experiences involving interpersonal stressors (i.e., groups) or different kinds of perceived coercions (i.e., drugs, experiential techniques). These preferences seem to be the results of the disorder itself, and perhaps they can be overcome by considering the SPD treatment program from a multilevel perspective. The schizotypal organization may represent a Level 1 target of the treatment requiring a focus on severe metacognitive dysfunctions, especially S and D

(MAS–A). A Level 2 target may be the more general personality dysfunction, especially in the interpersonal domain. Indeed, both in previous studies (Cheli, 2019b; Cheli et al., 2019) and in the present sample, patients highlighted how a 6-month intervention is not enough. Only 37.5% of patients were defined as recovered at 6 months (Group A), in contrast to the 100% of 12-month subgroup (Group B). At the same time, patients in Group B reported a decreased reluctance toward experiential techniques and, generally speaking, interpersonal stressors.

Finally, quantitative and qualitative data seem to support the potential effectiveness of a 12-month intervention defined by the sequence of a Phase 1 MERIT and a Phase 2 MIT within a wide rehabilitation program. The relevant changes reported at the end of the intervention with the MAS–A, GSI, and SPI–A are in line with those in previous studies on metacognitively oriented treatments for SPD (Cheli et al., 2019) and other PDs (Gordon-King et al., 2018; Popolo et al., 2019), but they have to be confirmed on statistically significant sample sizes. The individual MOP would represent the core of a recovery approach because it allows for a progressive and individualized rehabilitation of metacognition that may shift from a focus on a severe metacognitive impairment (Lysaker & Klion, 2018) to the promotion of more complex mastery strategies (Dimaggio et al., in press). Cautious coconstruction of the agenda with the patients, as well as a wise use of the MERIT insertion of the therapist's mind in the dialogue, offer a flexible and effective strategy in sustaining both the psychotherapy and the overall program. When different components inside the program (see Table 2) are considered by the professionals and presented to the patients as possible options (rather than imposed tasks), they are appreciated and used when needed.

Limitations

There are several limitations in this study. First, the sample size is too small to allow for a generalization of the results, especially with respect to the quantitative data and their statistical analysis. Second, through the described research design the reader cannot evaluate the differential effects of either the diverse components of the program or the three different MOP formats. Finally, the MOPs were not controlled in terms of either the patients' recruitment and randomization or the therapists' assignment and supervision. Therefore I cannot rigorously evaluate the effectiveness of the interventions.

Conclusion

Despite the low sample size and the use of a qualitative and potentially biased research design, the present pilot study seems to support the feasibility and the safety of a metacognitively oriented program aimed at the recovery of SPD patients. The integration of different assessment and treatment strategies offers promising findings in designing future studies aimed at validating such a program. Recovery, defined as both the absence of an SPD and the achievement of a desired level of QoL, seems to be a feasible target for rehabilitation.

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