

# Pathology of imagination in an adolescent at clinical high-risk for psychosis

MICHELE POLETTI<sup>1</sup>, ANDREA RABALLO<sup>2,3</sup>

<sup>1</sup>Department of Mental Health, Azienda Unità Sanitaria Locale-IRCCS Reggio Emilia, Italy; <sup>2</sup>Psychiatry and Psychotherapy, Faculty of Biomedical Sciences, Università della Svizzera Italiana (USI), Lugano, Switzerland; <sup>3</sup>Cantonal Socio-psychiatric Organization (OSC), Public Health Division, Department of Health and Social Care, Repubblica e Cantone Ticino, Mendrisio, Switzerland.

**Summary.** We report a pathological imagination process in an adolescent at clinical high-risk for psychosis, associated with the presence of self-disorders. The subjective experience associated with pathological imagination helped in distinguishing such mental activity from intrusive thoughts of obsessive-compulsive patients; moreover, such anomalous imagination focused on other people may be an adaptive process triggered by negative emotionality against others that appear difficult or impossible to relationally grasp and attune with. In conclusion, anomalies of imaginations may occur within the schizophrenic spectrum since adolescent prodromal stages, associated with self-disorders.

**Key words.** Clinical High-Risk for Psychosis, pathology of imagination, schizophrenia spectrum, self-disorders.

*Patologia dell'immaginazione in un adolescente ad alto rischio clinico per la psicosi.*

**Riassunto.** Viene qui presentato un caso di immaginazione patologica in un adolescente a rischio di psicosi, associata alla presenza di disturbi del Sé. L'esperienza soggettiva associata all'immaginazione patologica aiuta a distinguere questa attività mentale dalle fantasie intrusive descritte nei pazienti ossessivo-compulsivi. L'immaginazione patologica può essere un processo adattativo rispetto alle emozioni negative nei confronti di altre persone, con cui un'intesa intersoggettiva sembra difficile o impossibile da raggiungere. In conclusione, anomalie nell'attività immaginativa possono riscontrarsi nello spettro schizofrenico fin da stati prodromici di malattia, associati a disturbi del Sé.

**Parole chiave.** Disturbi del Sé, immaginazione patologica, rischio clinico ultra alto per la psicosi, spettro schizofrenico.

## Introduction

In addition to established anomalies in minimal Self-awareness – i.e., Self-disorders<sup>1-3</sup> – anomalies subjective experiences in patients within the schizophrenia spectrum may involve the imaginative process<sup>4-6</sup>, whose assessment is possible with a recently published semi-structured interview (Examination of Anomalous Fantasy and Imagination - EAFI)<sup>7</sup>. As meta-analytically found for Self-disorders<sup>8</sup>, also anomalies of imagination aggregate in schizophrenic patients in the comparison with other clinical conditions and with healthy controls<sup>9,10</sup>. These preliminary findings have been obtained in chronic schizophrenic patients, with a mean age around 30 years, while any clinical note or empirical finding on pathological imagination is reported in adolescents at prodromal, Clinical High-Risk for Psychosis (CHR-P)<sup>11</sup>. In this perspective we present a case report on pathological imagination in such adolescent prodromal stage, or CHR-P.

## Case report

NG is a 14-year-old female presenting a clinical picture of CHR-P, lying on a subjective substrate of Self-Disorders. The assessment with the Com-

prehensive Assessment of At Risk Mental States (CAARMS)<sup>12</sup> revealed the presence of Brief Limited Intermittent Psychotic Symptoms (BLIPS), mainly in terms of complex (multi-modality) hallucinations, associated with increasing anhedonia. The subjective distress, also related to sleep and eating alterations as well as to declining academic proficiency, suggested the need of an antipsychotic low-dosage therapy with quetiapine, with a rapid reduction of positive symptomatology, with less beneficial effects on the negative symptom of anhedonia. The negative dimension of anhedonia remained as the most disabling and subjectively distressing clinical feature also in the subsequent six months of follow-up (until now); it has been therefore attempted an adjunctive therapy attempt with an antidepressant (fluoxetine), subsequently discontinued for a poor response, in agreement with related empirical evidence<sup>13</sup>.

Moreover, beneath the symptomatic surface, a phenomenological examination focused on basic symptoms (Schizophrenia Proneness Inventory Child and Youth - SPI-CY)<sup>14</sup> and Self-disorders (Examination of Anomalous Self Experience - EASE)<sup>15</sup> revealed a pattern of profound alterations of the structure of subjectivity, mainly in the domains of

cognition and stream of consciousness, diminished sense of basic Self and bodily experiences. During the semi-structured assessment, she revealed the persistence of an imaginative process with violent contents (EAFI<sup>7</sup> item 7.2 Violent, macabre, or bizarre content, willingly investigated or entertained), in terms of drafting in a personal notebook detailed plans to injure her relatives and close friends, describing for each person his/her daily habits and related most-favorable occasions to act the violent fantasy. She described that since many years she had to face with intrusive fantasies with violent contents related to her parents, friends, and acquaintances, so she progressively attempted to manage this phenomenon transforming it into a voluntary planned activity of mental imagery. She was aware of the strangeness of this imaginative activity and how others could judge her if they knew her violent thoughts. The peculiar feature of this imaginative activity was that the targets of her injurious plans were also people that have a positive and significant relations with her, i.e., such imaginative activity was not mainly related to unexpressed rage, and she underlined many times, while talking about this issue, that she never really thought to act her plans. After the introduction of an antipsychotic therapy for her positive symptoms, this mental activity was described as progressively fading.

## Discussion

Although preliminary, this case report indicates that anomalies of imaginations may occur within the schizophrenic spectrum since adolescent prodromal stages, suggesting that also this domain should be investigated in youth at CHR-P, together with the presence of Self-disorders, through phenomenological interviews aimed at catching the structure of subjectivity below the symptomatic surface.

Second, this case exemplifies the process of coping arising in young people facing with an altered subjectivity. In analogy with the hyper-reflexivity that schizophrenic patients adopt to cope with their Self-disorders<sup>1-3</sup>, this female adolescent coped with her intrusive violent fantasies transforming them in a planned activity. This feature distinguished such clinical presentation from similar features described in obsessive compulsive patients. Indeed, the presence of obsessive compulsive-like phenomena in the schizophrenic spectrum has been widely reported since the beginning of the previous century<sup>16</sup>, and to facilitate the differential diagnosis, two major concepts were historically coined: true obsessions (characterized by intact insight and resistance against intrusive thoughts felt as irrational) and pseudo-obsessions (characterized by obsessive rumination without inner resistance, often associated with dysmorphic, sexual or aggressive contents), with the first

phenomenon associated with obsessive compulsive disorder and the latter associated with the schizophrenic spectrum. The progressive fading of this distinction is represented by the introduction, since DSM-IV, of the possibility to specify the presence of poor insight, when the patient does not recognize that obsessions and compulsions are excessive or unreasonable. Therefore, current diagnostic criteria could allow the misdiagnosis of schizophrenic patients with pseudo-obsessions as obsessive-compulsive patients with poor insight. In this clinical case, the involuntary nature of mental activity was ego-dystonic, not the violent content, to whom she never attempted resistance, and for this reason she attempted to willingly plan it or transforming it in a voluntary activity. These features distinguished such pseudo-obsessive fantasy from aggressive, violent or taboo involuntary and intrusive thoughts described in obsessive compulsive patients<sup>17</sup>, in which both the nature and the content of such thoughts are ego-dystonic, triggering negative emotions as shame and guilt.<sup>18</sup> Interestingly, antipsychotic treatment progressively reduced such mental activity.

Third, considering that, according to phenomenology, a core feature of schizophrenic vulnerability involves the subjective experience of being unable to structure an implicit attunement with others,<sup>19</sup> sometimes felt as threat<sup>20</sup>, it's possible to interpret the development of interpersonal violent fantasies as a possible defense mechanism and as the effect of an implicit negative emotionality against others that appear difficult or impossible to relationally grasp and attune with.

*Conflict of interests:* the authors have no conflict of interests to declare.

## References

1. Sass LA, Parnas J. Schizophrenia, consciousness, and the self. *Schizophr Bull* 2003; 29: 427-44.
2. Parnas J, Henriksen MG. Disordered self in the schizophrenia spectrum: a clinical and research perspective. *Harv Rev Psychiatry* 2014; 22: 251-65.
3. Henriksen MG, Raballo A, Nordgaard J. Self-disorders and psychopathology: a systematic review. *Lancet Psychiatry* 2021; 8: 1001-12.
4. Rasmussen AR, Parnas J. Anomalies of imagination and disordered Self in schizophrenia spectrum disorders. *Psychopathology* 2015; 48: 317-23.
5. Rasmussen AR, Parnas J. Pathologies of imagination in schizophrenia spectrum disorders. *Acta Psychiatr Scand* 2015; 131: 157-61.
6. Gozé T, Fazakas I. Imagination and Self Disorders in schizophrenia: a review. *Psychopathology* 2020; 53: 264-73.
7. Rasmussen AR, Stephensen H, Parnas J. EAFI: Examination of Anomalous Fantasy and Imagination. *Psychopathology* 2018; 51: 216-26.
8. Raballo A, Poletti M, Preti A, Parnas J. The Self in the Spectrum: a meta-analysis of the evidence linking basic Self-Disorders and schizophrenia. *Schizophr Bull* 2021; 47: 1007-17.

9. Rasmussen AR, Sæbye D, Parnas J. Anomalies of imagination in the schizophrenia-spectrum: Empirical findings. *Schizophr Res* 2019; 206: 458-9.
10. Rasmussen AR, Raballo A, Preti A, Sæbye D, Parnas J. Anomalies of imagination, Self-disorders and schizophrenia spectrum psychopathology: a network analysis. *Front Psychiatry* 2022; 12: 808009.
11. Raballo A, Poletti M, Preti A, McGorry P. Clinical high risk for psychosis in children and adolescents: a meta-analysis of transition prevalences. *Schizophr Res* 2022; 243: 254-61.
12. Yung AR, Yuen HP, McGorry PD, et al. Mapping the onset of psychosis: the Comprehensive Assessment of At-Risk Mental States. *Aust N Z J Psychiatry* 2005; 39: 964-71.
13. Fusar-Poli P, Papanastasiou E, Stahl D, et al. Treatments of negative symptoms in schizophrenia: meta-analysis of 168 randomized placebo-controlled trials. *Schizophr Bull* 2015; 41: 892-9.
14. Fux L, Walger P, Schimmelmann BG, Schultze-Lutter F. The Schizophrenia Proneness Instrument, Child and Youth version (SPI-CY): practicability and discriminative validity. *Schizophr Res* 2013; 146: 69-78.
15. Parnas J, Møller P, Kircher T, et al. EASE: Examination of Anomalous Self-Experience. *Psychopathology* 2005; 3: 236-58.
16. Bürgy M. Obsession in the strict sense: a helpful psychopathological phenomenon in the differential diagnosis between obsessive-compulsive disorder and schizophrenia. *Psychopathology* 2007; 40: 102-10.
17. Brakoulias V, Starcevic V, Berle D, et al. The characteristics of unacceptable/taboo thoughts in obsessive-compulsive disorder. *Compr Psychiatry* 2013; 54: 750-7.
18. Weingarden H, Renshaw KD. Shame in the obsessive-compulsive related disorders: a conceptual review. *J Affect Disord* 2015; 171: 74-84.
19. Salice A, Henriksen MG. Disturbances of shared intentionality in schizophrenia and autism. *Front Psychiatry* 2021; 11: 570597.
20. Lysaker PH, Johannesen, JK, Lysaker JT. Schizophrenia and the experience of subjectivity a threat. *Phenomenol Cogn Sci* 2005; 4: 335-52.