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Progress in mentalizing ability among people with psychosis through dialogic literary gatherings

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Abstract

Background People with psychosis often experience a fragmented sense of self, making it difficult to integrate perceptions, memories, thoughts, and emotions related to themselves and others. Enhancing mentalization processes and fostering reflection are crucial for comprehensive recovery. As these processes are naturally developed through meaningful interactions and dialogue, incorporating a dialogic approach into the treatment of psychotic disorders may significantly support recovery.

Methods This study examines the impact of Dialogic Literary Gatherings (DLGs) on the ability of mentalizing in individuals with psychosis. A quasi-experimental mixed-methods study was conducted with 23 participants (6 women and 17 men) diagnosed with psychosis. Over five months, participants engaged in 18 DLG sessions. Mentalizing ability was assessed using the Mentalization Scale (MentS), and qualitative data included interviews ($n=2$) and focus groups ($n=3$), to explore changes in mentalization.

Results Participants reported an increase in mentalizing towards others and toward him or herself, and in motivation to mentalize. Dialogues during DLGs fostered empathy, awareness of individual differences, and deeper engagement with others' emotions. Besides, sharing feelings in this dialogic environment enabled participants to reflect on past experiences and find purpose in life. Consistently, patients reported that these dialogues provided a platform for expressing emotions, re-evaluating life perspectives, and achieving greater self-awareness.

Conclusions This study highlights Dialogic Literary Gatherings as a valuable tool for enhancing the ability to mentalize in clinical populations, offering a complementary approach to traditional psychotherapeutic interventions for individuals with psychosis.

Keywords Dialogic Literary Gatherings, Psychosis, Treatment, Mentalization, Schizophrenia, Dialogue

Background

Psychosis, as defined by the American Psychiatric Association, is a mental disorder characterized by distortions in thinking, perception, emotions, language, sense of self, and behavior [1]. Traditionally, psychosis has been viewed predominantly through a biomedical and biological lens, emphasizing neurochemical imbalances and genetic predispositions as primary causes [2]. This approach, however, overlooks the substantial body of research that highlights the role of adversity and trauma in the development of psychosis. Studies have shown that

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traumatic experiences significantly increase the risk of psychosis [3], with trauma being particularly prevalent among adults with psychotic disorders [4]. These findings emphasize the need for a more nuanced understanding of psychosis as a multifaceted response to life experiences, warranting an integration of psychological and contextual factors into both its conceptualization and treatment [5]. Approaches that prioritize the narratives of individuals' experiences and psychosocial interventions [6] represent a necessary evolution in understanding and addressing psychosis holistically. Indeed, these individuals often suffer from overwhelming emotional anguish and coping mechanisms may include maladaptive behaviors such as drug and alcohol misuse, showing a high prevalence of comorbidity [7, 8].

One critical area of dysfunction in psychosis involves mentalization, or the ability to understand and interpret the mental states of oneself and others [9]. Mentalization enables individuals to perceive, interpret, and predict behavior based on inferred mental states such as thoughts, feelings, beliefs, and desires. Impairments in mentalization among individuals with psychosis often manifest as difficulty understanding others' emotions, misperceptions of social interactions, and a diminished capacity to recognize their own emotional experiences [9]. These deficits contribute to misunderstandings in social situations and impair interpersonal relationships, further exacerbating emotional distress [10].

Mentalization is inherently multidimensional, requiring the ability to balance and adapt its various dimensions to contextual demands [11]. Effective mentalization encompasses awareness of others' circumstances, personal history, and patterns of behavior, alongside the ability to interpret actions in light of these factors. Distorted or limited mentalization, on the other hand, is characterized by disinterest in mental states, reduced imaginative engagement with others' perspectives, and a poor understanding of the connection between internal experiences and external reality [12]. In psychosis, these deficits are associated with the severity of core symptoms, reduced social functioning, and increased isolation [13].

Given these challenges, interventions targeting mentalization have gained prominence as a promising avenue for improving outcomes in psychosis. Promoting mentalization not only enhances interpersonal understanding and reduces emotional distress but also fosters meaningful engagement in social and personal domains. Addressing mentalization deficits through tailored therapeutic interventions represents a critical step toward recovery and improving the quality of life for individuals with psychosis [14].

Addressing the challenges faced by individuals with psychosis requires psychological therapies that foster self-understanding and interpersonal awareness, as these are critical components of the recovery process [15]. Given the inherently dialogical nature of the self, creating environments where individuals with psychosis can engage in meaningful dialogue is particularly significant for rebuilding a sense of self and understanding others [16].

The dialogic approach emphasizes the foundational role of social interaction in human cognition and development. Rooted in sociocultural theory, this perspective posits that both learning and identity are socially constructed and mediated through language [17]. Dialogism, as articulated by Bakhtin [18], suggests that meaning emerges through dialogue, developed in reflective exchanges between individuals. This approach has been instrumental in understanding higher mental functions, framing them as products of social interactions [19].

Recent research highlights the potential of the dialogic approach in promoting recovery from psychosis. By fostering collaborative communication and empowering individuals through shared decision-making, dialogic practices have been shown to yield positive clinical and relational outcomes [15, 20]. These findings support the integration of dialogic interventions into therapeutic frameworks, as they facilitate meaningful connections and personal growth.

Dialogic Literary Gatherings (DLG), a recognized Successful Educational Action, involves the collective construction of knowledge and meaning through engagement with great literary works. Participants in DLG sessions engage in dialogic interactions when discussing a previous read of the same text, guided by principles of dialogic learning [19]. Hence, participants share diverse interpretations and emotions related to the text, collectively linking the reading to their own lives and experiences [21]. The transformative impact of DLG has been demonstrated across diverse settings [22], including schools [23], prisons [24], and among vulnerable populations, such as individuals with mental disabilities [25] where cognitive, personal and social benefits have been documented.

Despite these promising outcomes, the application of DLG within clinical contexts remains underexplored [26]. Translating the benefits of DLG to psychiatric settings may provide an innovative avenue for fostering mentalization among individuals with psychosis. The dialogic nature of these gatherings enables participants to engage in transformative interactions, cultivating an environment conducive to understanding their own and others' emotions. This engagement may also encourage participants to identify and accept their mental states through peer dialogue.

Building on these insights, the hypothesis of this study is that DLG participation will enhance mentalizing abilities in patients with psychosis. By providing opportunities for dialogue among peers, the intervention aims to facilitate self-reflection, empathy, and social understanding. The study seeks to analyze changes in mentalization abilities in individuals with psychosis following their involvement in Dialogic Literary Gatherings.

Methodology

A quasi-experimental study employing a mixed-method design [27] was conducted in a psychiatric hospital in northern Spain. The hospital specializes in the recovery and rehabilitation of individuals with chronic and severe mental illness. The study was structured into two phases: a control phase and an experimental phase, each lasting five months. This design allowed for a comparative analysis of participants' mentalization abilities over time.

Participants

The study involved 23 participants (6 women and 17 men) aged between 27 and 64 years ($M=45.4$; $SD=11.5$). All participants were hospitalized across three long-stay units (see Table 1). They presented with various psychotic disorders, predominantly forms of schizophrenia such as paranoid schizophrenia and schizoaffective disorder. Detailed participant data, including age, diagnosis, gender, type of substance use, and symptomatology, are presented in Table 1.

Symptom severity and functioning levels were assessed at the beginning of the intervention using the Brief Psychiatric Rating Scale (BPRS) [28], a widely used hetero-applied instrument in both research and clinical settings, based on the patient observation obtained during a semi-structured clinical interview [29]. The BPRS includes 18 items measuring diverse symptoms on a scale from 1 (not presented) to 8 (ostensibly severe), providing scores for positive symptoms, negative symptoms, and total symptomatology. These scores are also reported for each participant in Table 1.

In terms of global functioning, participants exhibited significant limitations. Negative symptoms frequently affected their daily performance, while positive symptoms were generally managed through psychiatric medication. Some participants engaged in sheltered employment, while others participated in occupational activities within the hospital. Notably, the majority of participants ($n=17$) had a history of substance use disorder, including five individuals with alcoholism ($n=5$). The inclusion criteria for participation in the study were a) a diagnosis of a psychotic disorder, b) the ability to read and write, and c) willingness to participate.

Instruments

Mentalization Scale (MentS)

Mentalizing ability was assessed using the Mentalization Scale (MentS) [30], a 28-item self-report measure designed for both clinical and general populations. Participants rated items on a Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The scale includes three subscales: MentS- Others (MentS-O) evaluates mentalizing in relation to others; MentS-Self (MentS-S) assesses mentalization related to oneself; and MentS- Motivation (MentS-M) measures the motivation and need to mentalization. A total score encompassing global mentalizing ability is also calculated. The MentS has demonstrated robust psychometric properties, including reliability, factor structure, and convergent-discriminant validity, across diverse geographical and clinical contexts [30, 31].

To adapt the MentS for Spanish-speaking participants, a rigorous backtranslation process was conducted by a panel of experts in clinical psychology, linguistics, and methodology. A Spanish psychologist with high English proficiency initially translated the scale, followed by review and proofreading by two PhD experts in methodology and clinical practice. A bilingual linguist then backtranslated the scale into English to ensure semantic consistency. Discrepancies were resolved collaboratively by the research team, ensuring fidelity to the original instrument.

Interviews and Focus Groups

Qualitative data on participants' experiences in the Dialogic Literary Gatherings (DLG) were collected through two semi-structured group interviews and three focus groups, at the end of the experimental phase. These tools explored participants' subjective perceptions of DLGs and their impact on mentalization. Interview topics included: a) Development and functioning of the DLGs, b) Interactions observed during DLGs and c) Outcomes perceived from participation in DLGs. The interviews conducted with 4 participants ($n=2$ in each interview), explored their perceptions about mentalizing ability and provided an in-depth understanding of individual experiences. Focus groups included all participants ($n=23$) and emphasized dynamic discussions to facilitate reflection on personal experiences shared by others. The focus groups covered similar themes to the interviews but encouraged collective dialogue.

Procedure

Participants agreed to attend DLG sessions and complete the MentS and qualitative interviews. Prior to participation, they were fully informed about the study's

Table 1 Sociodemographic and clinical data of the participants at the beginning of the intervention

	Pseudonym	Gender	Age	Diagnosis	Substance misuse	BPRS- Total	BPRS- Positive symptoms	BPRS- Negative symptoms
Long-stay unit	Juan	Man	31	Bipolar disorder	Stimulant drugs	2,33	2,75	2,25
	Naiara	Woman	34	Paranoid schizophrenia	Stimulant drugs	2,33	3,25	1,75
	Miren	Woman	35	Continuous paranoid schizophrenia	Stimulant and depressant drugs	2,89	2,75	5
	Sibai	Man	43	Paranoid schizophrenia	Depressant drugs	2,33	2	4
	Urko	Man	28	Paranoid schizophrenia	Stimulant and depressant drugs	2,33	2,25	3
	Ian	Man	51	Hebephrenic schizophrenia	Depressant drugs	3,17	3,5	4,5
Chronic long-stay unit I	Kepa	Man	39	Schizoaffective disorder	Stimulant drugs	2,06	2	2
	Jorge	Man	65	Episodic paranoid schizophrenia	Alcoholism	2,78	4,25	3,5
	Esperanza	Woman	41	Continuous paranoid schizophrenia	Stimulant and depressant drugs	2,94	4	1,5
	Miguel	Man	32	Schizoaffective disorder	Stimulant and depressant drugs	2	1,5	2,5
	Javier	Man	56	Paranoid schizophrenia	Alcoholism	2,28	2,25	3,5
	Simón	Man	38	Continuous paranoid schizophrenia	Stimulant drugs	2,39	2,75	2,75
	Julen	Man	29	Continuous paranoid schizophrenia	Stimulant drugs	2,06	2,25	3,25
Chronic long-stay unit II	Sergio	Man	51	Continuous residual schizophrenia	No consumption	2,28	2,5	2,25
	Ramón	Man	59	Continuous residual schizophrenia	Alcoholism	2,89	3	4
	Calella	Woman	54	Continuous residual schizophrenia	No consumption	3,33	4,5	3,5
	Txema	Man	49	Persistent delusional disorder	Stimulant and depressant drugs	2,22	2,25	3,5
	Jokin	Man	59	Continuous undifferentiated schizophrenia	Stimulant and depressant drugs	2,33	2,5	4,25
	Damon	Man	55	Continuous paranoid schizophrenia	Depressant drugs	2,39	3,5	3,25
	Merche	Woman	52	Dissociative conversion disorder unspecified	No consumption	2,83	3,75	3
	Mario	Man	58	Schizoaffective disorder of hypomanic type	Alcoholism and stimulant drugs	1,89	1,5	3,25
	Matilde	Woman	64	Bipolar disorder- current episode mixed type	Depressant drugs	2,17	2,25	3,25
	Kurt	Man	54	Delusional disorder	Alcoholism and stimulant drugs	1,61	1,5	1,5

objectives, evaluation process, and intervention design. Written informed consent was obtained from all participants, and, where applicable, from their legal guardians. Participant identities were anonymized, and pseudonyms were used throughout the study. Ethical approval was obtained from the University of Deusto Ethics Committee (Approval Number: ETK-12/21–22).

The study included three assessment points: (first) Pretest (January 2020): conducted before the control phase

(January-May), during which participants received standard hospital treatments, including group therapy (e.g., psychoeducation, craving management, social cognition), occupational therapy, and psychiatric medication. (second) Intermediate (May 2020): conducted at the end of the control phase. (third) Posttest (November 2020): conducted after the experimental phase.

At the three assessment points, MentS was administered individually to each participant to ensure clarity

and comprehension. Each session lasted approximately 20 min. Interviews (30 min each) and focus groups (approximately 30 min) were audio-recorded and later transcribed for qualitative analysis.

During the experimental phase (June–November 2020), participants attended weekly DLG sessions in their respective units (18 sessions per unit, totaling 54 sessions). Sessions were paused in August due to vacation schedules. Each session lasted approximately 50 min and was facilitated by a researcher (first author). Participants read and reflected on excerpts from Franz Kafka’s *The Metamorphosis*, a text collaboratively selected by participants and clinicians. Prior to each session, participants selected a word, sentence, or idea from the text that resonated with them—whether it evoked an emotion, recalled a memory, or sparked curiosity. Sessions began with a review of the guiding dialogic principles, and participants engaged in collective discussions linking the text to their own lives and experiences. Overall attendance at the sessions was high, with an average of 5.6 (SD=0.8) out of 6 participants in the long-stay unit, 6.5 (SD=1.0) out of 7 in the chronic-stay unit, and 9.3 (SD=1.8) out of 10 in chronic-stay unit II. Figure 1 illustrates the number of attendees per session over time. As shown in Table 2, nearly all participants attended almost every session.

All sessions were audio-recorded and transcribed verbatim to analyze group interactions and their relevance to mentalization development [32]. At the end of the experimental phase, participants completed the MentS again, alongside two interviews and three focus groups to collect qualitative data. Overall, this procedure ensured a comprehensive assessment of both quantitative and qualitative changes in participants’ mentalization abilities throughout the study.

Table 2 Attendance rate

	Pseudonym	Sessions attended
Long-stay unit	Juan	16
	Naiara	17
	Miren	17
	Sibai	18
	Urko	17
	Ian	18
Chronic long-stay unit I	Kepa	18
	Jorge	18
	Esperanza	18
	Miguel	16
	Javier	18
	Simón	17
	Julen	16
Chronic long-stay unit II	Sergio	15
	Ramón	18
	Calella	17
	Txema	18
	Jokin	18
	Damon	17
	Merche	18
	Mario	18
	Matilde	17
	Kurt	18

Data analysis

Descriptive and inferential statistical analyses were performed on mentalization scores using SPSS (Statistical Package for the Social Sciences), version 26. Given the small sample size ($n=23$), non-parametric tests were employed to assess the significance of differences across

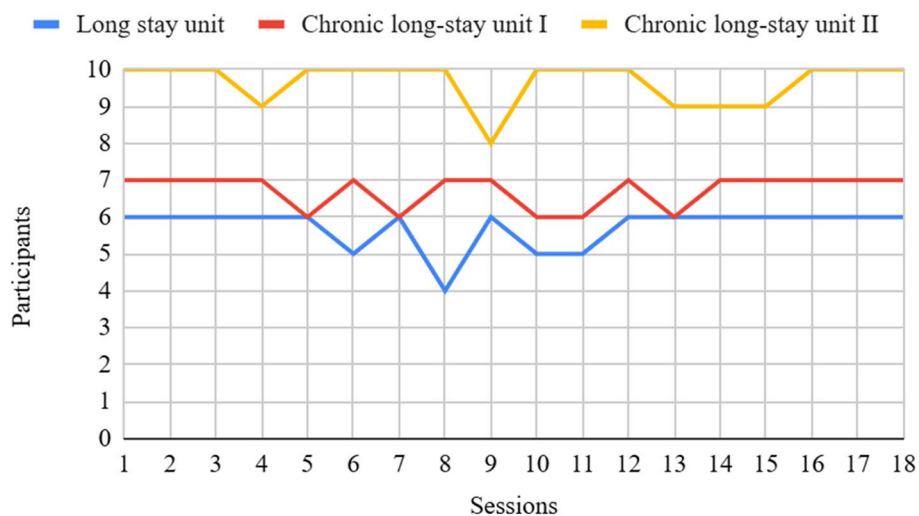


Fig. 1 Participants in each session

time points in the dimensions of the Mentalization Scale (MentS). Firstly, mean and standard deviation of each measure were calculated. Then, the non-parametric Friedman test [33] was used to identify statistically significant differences across time points. To confirm specific differences, Wilcoxon signed-rank tests [30] were conducted for pairwise comparisons.

The qualitative analysis adopted a phenomenological approach, emphasizing participants’ subjective experiences [34]. This method prioritizes the participants’ voices, fostering a deeper understanding of their lived experiences and the underlying mechanisms of the observed phenomena [35, 36]. The inclusion of qualitative evaluations in clinical settings provides critical insights into patients’ perceptions, enriching psychotherapeutic decision-making [37]. Data from DLG sessions ($n=54$), interviews ($n=2$) and focus groups ($n=3$), were analyzed deductively. These data were categorized according to the three dimensions of the MentS [31]: a) mentalization related to others; b) mentalization towards oneself; and c) motivation to mentalize.

This categorization allowed for the illustration of quantitative findings with qualitative examples derived from session dialogues, interviews, and focus groups.

To ensure methodological rigor in qualitative reporting, the study adhered to the standards proposed by Levitt et al. [38]. These standards emphasize transparency and systematic approaches to analyzing and interpreting qualitative data.

Results

This section presents quantitative data on differences in mentalization scores before and after the intervention, along with qualitative insights from interactions observed during the Dialogic Literary Gatherings (DLG) and participant responses from interviews and focus groups.

Regarding the quantitative findings, the mean and standard deviation of mentalization scores across the three subscales at each time point are summarized in Table 3.

For the total score of MentS, the Friedman test indicated statistically significant differences across time

points ($\chi^2=34.10, w=0.898, df=2, p=0.001$). Pairwise comparisons using the Wilcoxon signed-rank test revealed a significant decrease in the control phase ($Z=-3.29, p<0.001$) and a significant increase during the experimental phase ($Z=-4.19, p<0.001$) (Table 3). These findings demonstrate that the overall mentalization ability reported by participants improved following the DLG intervention. Results for specific subscales are detailed below.

Others-oriented Mentalization

The Friedman test showed significant differences in mentalization related to others across time points ($\chi^2=33.61, w=0.885, df=2, p<0.001$). During the control phase, a significant decline was observed ($Z=-2.88, p<0.004$), whereas a marked improvement occurred following the intervention ($Z=-4.20, p<0.001$). Participants reported enhanced abilities to understand others’ emotions, infer feelings, and adapt to situations considering others’ mental states.

These quantitative results were substantiated by qualitative data gathered from sessions, interviews, and focus groups. Particularly, the dialogues developed during the gatherings underscore the significance of adapting to reality, a skill often limited in individuals with psychotic disorders. These discussions highlight the diverse ways people navigate daily life, fostering reflections among participants about understanding others’ emotions and appropriate responses. The following exchange between Txema and Sergio, two men with schizophrenia and impaired social skills, illustrates their shared reflections on individual differences in reactions and the resulting insights into others’ behaviors:

Txema: “I mean that we never get to know each other because the person itself is very extensive and after different variants of life, we react, depending on our mood, on our perception, on many things.”

Facilitator: “And we also change, don’t we? It is not only that we react differently...”

Sergio: “I believe that we do not adapt in the same way, because of the way people are. There are people

Table 3 Differences in mentalization: scores of MentS (Mean and Standard Deviation)

	Pretest M (SD)	Wilcoxon Control	Intermediate M (SD)	Wilcoxon Experimental	Posttest M (SD)	Friedman between timepoints
MentS-O	2,60 (0,65)	$Z=-2.88, p<.004$	2,07 (0,52)	$Z=-4.20, p<.001$	3,57 (0,66)	$\chi^2=33.61, w=.885, df=2, p<.001$
MentS-S	2,77 (0,48)	$Z=-1.50, p=.133$	2,52 (0,53)	$Z=-3.95, p<.001$	3,38 (0,43)	$\chi^2=21.73, w=.572, df=2, p<.001$
MentS-M	3,05 (0,61)	$Z=-2.66, p=.008$	2,56 (0,33)	$Z=-4.19, p<.001$	3,93(0,52)	$\chi^2=31.54, w=.830, df=2, p<.001$
Total MentS	2,81 (0,45)	$Z=-3.29, p<.001$	2,40 (0,33)	$Z=-4.19, p<.001$	3,52 (0,40)	$\chi^2=34.10, w=.898, df=2, p=.001$

* M = Mean; SD = Standard Deviation; MentS-O = MentS- Others oriented scale; MentS-S = MentS- Self oriented scale; MentS-M = MentS- Motivation

who adapt to a situation and there are people who adapt in a different way, who can be more aggressive, more different."

The reading encouraged participants to empathize with the main character, Gregor Samsa, enabling them to understand his emotions and behavior from his perspective. This process fosters empathy—an essential component of mentalizing—by helping participants relate to others' feelings and motivations. In some instances, participants connected these reflections to their own personal experiences. For example, Mario, who has experienced homelessness and rejection from his family, identified with Gregor's sense of alienation. Speaking through the protagonist, Mario described feeling like a "monster," linking this perception to a psychotic episode he had experienced:

Mario: "But that was because of his family, who knew that he had become a monster and he was afraid to open the door because he didn't know what the family's reaction would be (sister, father...) And he still sees himself as a monster and he can't do anything to get out of it. Because all this is an impressive mess in his head."

(...)

Facilitator: "Let's see, Sergio, what else did you underline?"

Sergio (reads a fragment): (...) "that is insecurity and fear of locking himself in his room in his own house, because he knows that his parents can come to wake him up and he closes himself in his room so that they do not open the door and prevent him from waking up. He closes himself as a protective measure towards him, either so that they do not wake him up or because he is afraid of being seen. Like the fear of going out in the street."

In the excerpt above, Sergio demonstrates an understanding of Gregor Samsa's need for safety, recognizing the strategies he employs and the reasons behind his actions. This reflection fosters Sergio's ability to infer others' feelings and motivations, a critical aspect of mentalization.

Participants also engaged in a discussion about the concept of empathy, particularly to help Merche, a patient with low cognitive ability, comprehend its meaning. Ramón and Sergio collaboratively explained the term, providing practical examples to aid her understanding. This interaction not only facilitated explicit learning but also promoted prosocial behavior, as participants supported one another in developing mutual understanding:

Merche: "Empathy, what does it mean?"

Ramón: "Empathy means that when you are talking to a person, you understand them and you put yourself in their shoes, you understand how they feel. That, as I would say, putting yourself in the other person's shoes, knowing what the other person is feeling."

Facilitator: "Great, Ramón, you explained it great."

Sergio: "Put yourself in the other person's shoes even if you don't know him/her."

Ramón: "Imagine that I put myself in your place (the facilitator), you are a professional and you are doing a job and you have to do it well because it is your job, because there are some people who tell you to do that and you have to do it and I understand you because that is your job or however you want it to be."

The participants also reflected on the individuality of feelings and reactions, emphasizing that everyone experiences and processes events differently. Given that psychosis often entails limited self-awareness, these reflections not only deepened participants' understanding of others but also fostered a broader awareness of themselves. This aligns with the dialogic principle of "equality of differences," which underpins Dialogic Literary Gatherings.

Sergio: "Well, I had underlined the word feelings because the word feelings makes me say that it is a special word, because feelings is an important word to point out because not all of us have the same feelings, some of us have them in one way and others in another way. And the same thing is happening to this boy with his feelings, when he is in bed his feelings may be deeper and that's why he doesn't sleep well."

(...)

Txema: "Since we all feel differently"

Facilitator: "Why do we feel differently?"

Sergio: "Because we are not all the same."

Txema: "We are the same, but we are not equal."

In the focus group, Juan, a young participant who had been decompensated during the intervention and exhibited aggressive behavior, reflected on the DLG sessions as a space for developing respect and understanding towards peers. He noted his progress in managing impulsivity and practicing self-control during discussions, highlighting the importance of containment:

Juan: "What I liked the most about the gathering was to raise my hand to say what we think, I think it is important to say what we think because it is what really crosses our minds, and we say it. Well, what I liked the most was to raise my hand to speak, I have

learned to have respect and to listen to a person, wait for him to finish and then, speak.”

(...)

Juan: “Well, if Naiara was saying something and I have gone through the same situation, I have put myself in her mind, in her skin, in her skin and I have understood her correctly because I have gone through the same thing.”

Self-related Mentalization

Regarding self-reflection, the analysis revealed significant improvements in mentalizing ability related to oneself. The Friedman test indicated statistically significant differences in the MentS-S subscale scores across time points ($\chi^2=21,73$, $w=0.572$, $df=2$, $p<0.001$). The Wilcoxon test showed no significant changes during the control phase ($Z=-1.50$, $p=0.133$), while the experimental phase implementing DLGs led to a statistically significant increase in self-related mentalization ($Z=-3.95$, $p<0.001$) (Table 3).

In this vein, during DLG sessions, participants engaged in self-reflection and reported issues about their progress in life. These discussions allowed participants to process their experiences, integrate their thoughts and feelings, and become more aware of aspects of their lives that are typically difficult for individuals with psychosis to articulate. For instance, Sergio, diagnosed with schizophrenia, and Merche, who has a personality disorder and low cognitive ability, reflected on their personal growth during their time in the hospital:

Facilitator: “Has anyone liked anything or has anything caught your attention from what we have read?”

Sergio: “I ‘had advanced’, here it says ‘had advanced’.”

Facilitator: “And why did that catch your attention?”

Sergio: “Well, because in the hospital I have advanced a lot in my life, I have advanced a lot because I have learned many things, I have made many mistakes and I have advanced a lot in the sense of my abilities, about drugs and the problems of my previous life.”

In this vein, Merche reflected on her life, noting the significant changes she had experienced:

Merche: “I have also changed a lot from before to now. I have changed a lot, before I was very shy, very shy, extremely shy, I was introverted, very much to myself. And that hurt me a lot, because my mother, if she scolded me, I didn’t answer her, I went to my room to cry. I could not express to my mother my feelings towards her.”

The environment of respect, trust, and acceptance fostered in the DLG sessions enabled participants to express emotions related to past experiences. This dialogic space encouraged participants to connect with their feelings and recognize shared experiences with peers. For example, Kepa, a participant with schizophrenia and a history of significant drug abuse, reflected on his relationship with his family during a period of altered consciousness.

Kepa: “I was embarrassed. I didn’t want to be with my nephews because I didn’t want them to see me that bad.”

Facilitator: “And how did you feel?”

Kepa: “Bad, but I had no other choice because I was having a heart attack and I needed to take refuge in someone who would give me peace of mind. Just at that moment, my sister and her family passed by, and I stopped them and rode with them, I was pretty embarrassed.”

Facilitator: “Okay and you stopped them because...”

Kepa: “I needed that peace of mind, to unload with them.”

Facilitator: “Has anything similar happened to any of us? That need for refuge in the family?”

Esperanza: “Yes, you always need to take refuge in someone.”

(...)

Kepa: “When you’re young you don’t value your family so much, you don’t care about them because they might scold you and stuff like that. When you get older you realize how much they have done for you.”

This process of reflecting on the incongruence of his emotions and actions fostered self-awareness, an essential step in understanding his psychological difficulties.

One of the core principles of DLGs is the “creation of meaning,” which encourages participants to reflect on their life’s purpose and fosters insight into their self-experience. This meaning-making process is vital to the rehabilitation of mental disorders, as it is closely linked to health, personal development, and achieving a full recovery.

Esperanza: (...) “Life is about moving forward, looking for a reason, the experience not only serves to teach, but also to be able to live and to know how to make our way in life. What we learn comes out over the years. It helps us to be able to get on track and find a reason to continue. Each one has to find his reason to move forward. For example, when my mother died, I remember her and it hurts me, but my life goes on.”

Participants expressed emotions and feelings during DLG sessions, recognizing similar experiences among

peers. For instance, discussions on romantic relationships provided opportunities for deep emotional engagement, fostering mentalization:

Kurt: "It can also happen to you that you leave that person and at that moment you realize that you have been in love, and you did not realize it before. You have a relationship with her, and you don't... and then when you lose her is when you realize that you have been in love."

(Applauses)

Ramón: "That has happened to me"

The interactions highlighted the dialogical sense of self and the participants recognized and articulated the fluidity of the self across different situations and interactions. Developing awareness of these interactional changes is crucial for integrating one's feelings, thoughts, and emotions. These reflections are also closely tied to an increased awareness of others' emotions and personality traits:

Mario: "We should all be different and at the same time complementary. I mean, understand what happens to you and, if I can help you in any way, I would give you some advice, for example."

(...)

Mario: "You have to understand that we are not all the same, and we do not all relate in the same way with each person. We are 30 people and I relate differently with each person, being myself the same person. I treat each person in a different way, depending on how each person is. And that's why sometimes conflicts, fights arise... You have to adapt to your situation, to have your personality and carry it out, understand it and... with everyone in the same way and without prejudices."

Finally, participants valued the opportunity to express their feelings in response to others' ideas shared during the DLG sessions. This environment fostered perspective-taking and provided participants with the chance to reconsider and broaden their viewpoints. They emphasized the transformative power of dialogue in shaping thoughts and insights. For example, Juan, this participant in an acute period of his illness with aggressive behaviors, highlighted the significance of being able to articulate his thoughts. Given the disorganized language often associated with psychosis, developing the ability to construct coherent discourse is essential for improving overall functioning.

Juan: "About the sessions, I give you my opinion, this is what I think: I think it's good to have these conversations because you learn to explain yourself and

explaining yourself makes you think things through and be able to improve, because you learn to explain yourself."

Facilitator: "So, you think that by explaining yourself you learn?"

Juan: "Yes"

Facilitator: "That is the relationship between what we say and what we think? It is important, it is important what we say."

Juan: "Of course, because words have an effect on the mind."

Facilitator: "That's good, it is important"

Juan: "I have learned to say what I feel, now I write poetry and it is very beautiful."

This was also discussed in the focus group, where participants emphasized the impact of Dialogic Literary Gatherings in prompting them to reevaluate different aspects of their lives and recognize fluctuations in their moods, highlighting an increased awareness of emotional instability:

Sergio: "Yes, yes, it's a new activity that we didn't know about and that makes you think, makes you..."

Txema: "To think about things"

Sergio: "It makes you recreate yourself in the book and express yourself, express your emotions, feelings, memorize about the book, about what you have read. There are days I've felt worse and days better, I don't know why, these last few days I've felt better, you've encouraged me more... I've already told you that I want to come to the literary gatherings."

Researcher: "And the others?"

Ramón: "Yes, I liked it, I was able to express the things that happened to me. Besides reading the book, I have transmitted it to life, I have related it to my own life."

Motivation towards Mentalization

The MentS subscale assessing motivation and need to understand the physical world of oneself and others reported a significant improvement. The Friedman test showed statistically significant differences across time points ($\chi^2 = 31.54$, $w = 0.830$, $df = 2$, $p < 0.001$). Particularly, the Wilcoxon test indicated a difference during both control ($Z = -2.66$, $p = 0.008$) and quasi-experimental phases ($Z = -4.19$, $p < 0.001$), showing an increase during the intervention period (Table 3).

Participants also reflected on motivational aspects during the sessions, particularly their desire and difficulty in expressing emotions through crying. Recognizing and feeling distressed about this inability, often linked to apathy, is a meaningful step in the recovery process for

psychosis. This awareness signals progress toward emotional engagement and self-understanding.

Calella: "This is part of being human"

Ramón: "I would like to cry, but I can't cry."

Facilitator: "It can also happen, does anyone else find it hard? Jokin and Txema, you too?" (hand raised)

Jokin: "I haven't been able to cry for a long time, but any day I can cry."

Calella: "I'm a big crier"

Facilitator: "And you, Txema?"

Txema: "I don't cry"

Facilitator: "And how do you deal with it?"

Txema: "Inside"

he need to reflect on and learn from past experiences was another theme discussed during the DLG sessions. While some participants emphasized the importance of revisiting past events to gain insight and understanding, others advocated for focusing on the present, integrating these reflections into themselves. The following excerpt captures a collaborative reflection on this topic:

Jorge: "I believe that the past, whether we have learned or not, must be left aside, otherwise you don't look at the present."

Facilitator: "So you think we should not think about the past?"

Jorge: "To think only to learn and not to repeat"

Facilitator: "What do the rest of you think? Do you have to think about the past?"

Julio: "Well, you have to think about the past too."

Urko: "Depending on which past"

Facilitator: "Why do you say that, Urko?"

Urko: "Because if it is a bad past, we will have to think about it in order not to make the same mistakes. If it is a good past, then that's what you take with you."

Discussion

This study aimed at analyzing the impact of a dialogic intervention on mentalization among individuals with psychosis. Findings revealed a significant improvement in mentalizing abilities among participants following their involvement in Dialogic Literary Gatherings (DLGs). Specifically, participants reported enhanced abilities to understand others' thoughts and emotions, adapt their behaviors accordingly, and integrate their own feelings and life experiences into personal development. Patients also seemed to improve their motivation to mentalize and to express themselves and their feelings. In contrast, a notable decline in mentalizing ability was observed during the control phase, potentially

attributable to a pandemic-related lockdown that disrupted hospital activities and negatively influenced participants' mental states.

The qualitative data supported these quantitative findings, showcasing profound dialogues during DLG sessions about participants' emotions, past experiences, and personal development. For self-mentalizing, patients reflected on their past actions and their emotional consequences, particularly in the context of family dynamics, which are often deeply affected by mental illness [39]. Participants also reflect on how they adapt to different situations in life and how their identity varies through diverse contexts. This increased self-awareness and insight, which are linked to well-being, [40], are essential components of recovery. Furthermore, reflections on life's purpose emerged during the gatherings. All these reflections are crucial in rehabilitation since they address impairments in the meaning-making process, which are common in psychosis [41]. A meaningful purpose is essential for development, since it promotes metacognitive skills among people with schizophrenia [42], and serves as a fundamental element of identity [43]. Similar outcomes have been observed in psychotherapies that focus on the dialogic sense of self, achieving an increased awareness and reflection about themselves and their delusions and emotions and improvements in metacognition [42]. Thus, fostering mentalizing abilities through dialogic interactions plays a pivotal role in constructing the sense of self.

In terms of other-oriented mentalization, participants themselves valued their ability to understand others' thoughts and feelings fostered in the sessions, facilitated by identification processes within the group. Dialogue during sessions often involved attempts to empathize with others by actively listening and reflecting on shared experiences. Given the social cognition limitations frequently experienced by this population, promoting these abilities is vital for recovery. In this sense, they commented on individual differences, a key aspect in the integration of self-experience [44]. Understanding others' mental states and emotions is central to empathy, a crucial requirement for social functioning, which is often impaired in psychosis [45]. Misunderstandings of social situations are common in psychosis; thus, fostering the ability to interpret others' intentions and desires also contributes to functional improvements [46]. These findings align with previous research demonstrating the promotion of empathy through DLGs [47].

Participants also expressed an increased awareness of the importance of emotions in life, highlighting the value of sharing their feelings. This finding echoes reports from DLGs conducted in educational contexts [48]. Increased motivation of sharing emotions can mitigate negative

symptomatology by awakening different emotional states, which in turn contribute to identity construction through dialogical processes [49].

In this sense, ensuring dialogic principles [19] when implementing DLGs is crucial in order to foster mentalization among participants. Ensuring egalitarian and transformative dialogue fosters interactions characterized by respect and acceptance, creating a safe and non-judgmental environment where participants feel comfortable expressing themselves. This approach addresses the challenge individuals with psychosis often face in sharing their experiences [16]. These true and deep externalizations are the basis of a real, and not imposed, reconsideration of experiences, which has the potential of transforming cognition. In addition, expressing their own interpretations and opinions lead to mutual recognition that allows awareness of differences [50], achieving a more integrated perception of one's and other's self experience. Indeed, listening to diverse interpretations helps participants form a coherent sense of self and others. This process, inherently dialogical, involves shared understanding and collective meaning-making [16]. In particular, principles such as cultural intelligence and equality of differences further facilitate this process [19], fostering a context of freedom and acceptance where participants contribute to group dialogue and internalize shared reflections [17].

Finally, discussing universal literary works, such as *The Metamorphosis* by Franz Kafka, further enhanced emotional interactions by addressing fundamental human themes, including love, friendship, and trauma. These findings are consistent with prior research demonstrating that reading classic literature promotes empathy, mentalization [51], and brain activation [52].

Limitations and future research

This study has several limitations that must be considered when interpreting the results. The small sample size, which was due to prioritizing voluntary participation, limited the generalizability of findings. To address this, a single-group methodological design was employed, including a control phase for comparison. However, the control phase coincided with a COVID-19 wave, during which restrictions on outings and visits likely had an adverse effect on participants' mental health. By contrast, the DLG implementation period aligned with eased restrictions, which may have positively influenced outcomes. Due to the small sample size, non-parametric analyses were used to evaluate the data.

The reliance on a self-report questionnaire (MentS) to measure mentalization is another limitation, as results were influenced by participants' self-perceptions.

Moreover, participants' diverse contextual and psychological characteristics, beyond their psychosis diagnoses, may have affected their mentalization abilities and were not accounted for in this study.

Future research should consider employing a randomized controlled trial (RCT) to more rigorously evaluate the impact of DLGs, ensuring that changes in mentalizing are directly attributable to the intervention. Additionally, future studies could explore the psychosocial mechanisms underlying the observed improvements and consider the influence of individual characteristics. Finally, the small sample size precluded the validation of the Spanish MentS translation in this population, this is a potential limitation that may affect measure's validity and reliability [53]. Future research should evaluate the validity and reliability of this instrument in clinical populations by comparing it with other hetero-applied measures of mentalization.

Conclusions

Despite its limitations, this research highlights the potential of Dialogic Literary Gatherings (DLGs) as a valuable tool for enhancing mentalization in clinical populations. The findings suggest that DLGs can serve as a complementary intervention in the recovery process for individuals with psychotic disorders. By fostering empathy, promoting reflection on oneself and others, and encouraging a deeper understanding of emotions and experiences, DLGs contribute to improving participants' sense of self and social functioning. This study advances the application of DLGs in psychiatric contexts, demonstrating their capacity to facilitate meaningful psychological and social growth among individuals with severe mental illnesses.

Abbreviations

DLG	Dialogic Literary Gatherings
MentS	Mentalization Scale
MentS- M	Mentalization Scale- Motivation
MentS- O	Mentalization Scale- Others
MentS- S	Mentalization Scale- Self
SPSS	Statistical Package for the Social Science

Supplementary Information

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Supplementary Material 1.

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Authors' contributions

RGC and AFV contributed to the study conception and design. Material preparation, data collection and analysis were performed by AFV, RGC, ASI, ADP. The

first draft of the manuscript was written by AFV, and ASI, APD and RGC read and contributed to previous versions of the manuscript. RGC edited the final version. All authors read and approved the final manuscript.

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Data availability

The datasets generated and analysed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

The study was approved by the ethics committee of the University of Deusto with number ETK-12/21–22. All the participants and legal tutors signed the informed consent. The research was conducted in accordance with the Declaration of Helsinki.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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