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Article

New Adaptations in the Application of Mindfulness to Psychosis Spectrum Disorders

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ABSTRACT

The clinical use of psychosis-adapted mindfulness has been rejected by some mental health professionals due to biases and lack of information. However, current evidence has demonstrated the safety and numerous benefits of mindfulness-based interventions (MBIs) in psychotic spectrum disorders. MBIs are adaptable to diverse clinical contexts and situations, including cognitive impairment, and although it is not their primary objective, they can facilitate the reduction of negative symptomatology in psychosis. MBIs enable individuals with psychosis to approach hallucinatory experiences from an alternative perspective, fostering flexibility, emotional regulation, and acceptance. It is crucial to tailor interventions to the characteristics of the psychosis, as well as to differentiate between the different types of practices, in order to apply them differentially depending on the specific symptoms and characteristics of the individual.

Nuevas Adaptaciones Para la Aplicación del Mindfulness a la Psicosis

Palabras clave
Mindfulness
Intervenciones basadas en mindfulness
Psicosis
Alucinaciones

RESUMEN

El uso clínico del mindfulness adaptado a la psicosis ha sido rechazado por algunos profesionales de la Salud Mental debido a prejuicios y falta de información. Sin embargo, la evidencia actual ha demostrado que las Intervenciones Basadas en Mindfulness (MBI) son seguras y tienen numerosos beneficios en los trastornos del espectro psicótico. Las MBI son adaptables a diferentes contextos y situaciones clínicas, incluido el deterioro cognitivo, y aunque no constituye su objetivo principal, pueden facilitar la reducción de la sintomatología negativa en la psicosis. Las MBI permiten a las personas con psicosis enfrentar las experiencias alucinatorias desde una perspectiva diferente, fomentando la flexibilidad, la regulación emocional y la aceptación. Es importante adaptar las intervenciones a las características de la psicosis, así como distinguir entre los diferentes tipos de prácticas, para aplicarlas de manera diferencial según la sintomatología específica y las características de la persona.

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Introduction

Prejudices and lack of information about how mindfulness clinically adapted to psychosis works have favored the development of a wave of opinion, even among some mental health professionals, that rejects the application of mindfulness in psychotic spectrum disorders (PSD) as dangerous (Böge et al., 2021). This has been contributed to by the publication of a number of articles that have associated the occurrence of psychotic episodes to the performance of meditative practices (Sethi & Bhargava, 2003, Kuijpers et al., 2007; Joshi et al., 2021; Goud, 2022). However, these case studies refer to practices that incorporate intense meditation episodes, often within retreats, which often include additional stressors such as sleep or food restriction, in addition to the lack of specific training of those who teach them (Shonin et al., 2014). In view of this, it is not only important to distinguish between mindfulness and other forms of meditation that may carry a high risk for people with psychosis, but also, within the practice of mindfulness itself, it should be noted that there are different types of interventions that may or may not be beneficial depending on the clinical characteristics of the individual and the psychosis itself. Thus, mindfulness based interventions (MBI)-which have demonstrated evidence for various conditions related to stress and depression-such as mindfulness based stress reduction (MBSR) formats (Kabat-Zinn, 2003) and mindfulness based cognitive therapy (MBCT) (Segal et al., 2002), among others, may differ from mindfulness interventions specifically adapted for psychosis (Chadwick, 2009, 2014), although both have been successfully applied in psychosis by qualified professionals.

Research on MBIs applied in psychosis has multiplied over the last decade, with favorable results in reducing stress and distress related to psychotic symptoms (Jacobsen et al., 2019), even in acute phases, where they have demonstrated the ability to reduce the risk of hospital readmission (Jacobsen et al., 2020). Cramer et al. (2016), in their meta-analytic review, found moderate short-term evidence on total psychotic symptoms, positive symptoms, as well as rates and duration of hospitalization, and long-term evidence on total psychotic symptoms and duration of hospitalization, with no serious adverse effects. Yip et al. (2022) have also described significant reductions in positive symptomatology from the start of treatment, as well as positive effects on quality of life, mindfulness skills, and illness awareness, particularly in the young population, with no serious adverse effects reported. Therefore, not only has the reduction of positive symptomatology been a consistent finding, but its effect may persist independently when statistically controlling for the effect of pharmacological treatment (Usher et al., 2019). In her recent meta-analytic review, Ellett (2023) indicates mindfulness in psychosis as a promising, safe, and effective intervention, with results on both positive and negative symptomatology, with effect sizes varying from small to large depending on the study analyzed.

In a report promoted by the Community of Madrid (Luengo et al., 2018), it is noted that MBIs, when implemented as adjunctive treatment strategies in patients with severe mental disorder (SMD), reduce overall psychotic symptomatology and improve introspective capacity, quality of life, and hospital readmission rate. Tao et al. (2021) report positive effects on introspection, duration of rehospitalization, recovery rate, and social functioning.

Similarly, several studies have reported promising results on cognitive impairment and residual negative symptomatology in people with schizophrenia (Ting et al., 2020; Shen et al., 2023), promoting recovery through improved daily functioning (Ting et al., 2020) and quality of life (López-Navarro et al., 2015). Furthermore, the integration of mindfulness into a cognitive rehabilitation program in psychosis has shown positive effects on inhibitory control (López-Navarro et al., 2020), closely related to quality of life and social functioning in psychosis (Ojeda et al., 2019; Peña et al., 2018).

Its application has been extended with good results to earlier stages of psychosis, such as first psychotic episodes (FPEs) (Li et al., 2021; von Hardenberg et al., 2022) or even to premorbid stages, such as ultra-high risk for transition to psychosis (UHR) (Vignaud et al., 2019) with beneficial effects on anxiety, social functioning, and mental quality of life (Tong et al., 2016).

Some authors point out that in early stages of psychosis the beneficial effects extend to cognitive functioning (Langer et al., 2017, 2020). The integration of mindfulness in a family psychoeducation program can contribute to a decrease in expressed emotion (Zhang et al., 2023). Mindfulness-based interventions have also been applied remotely (Weintraub et al., 2023) and through virtual reality (Plencler et al., 2022), with promising results. In the first case, the remote application of an MBCT intervention in a sample of young people with attenuated psychotic symptoms generated improvements in social functioning in adolescents with greater adversity in childhood. Similarly, the application through virtual reality in people diagnosed with psychosis and aged between 18 and 50 years reduced positive and negative symptomatology, with beneficial effects on emotional regulation and cognitive functioning.

Therefore, mindfulness constitutes a widely adaptable technique, both to different contexts and to different moments of clinical evolution of PSD, including cognitive impairment and negative symptomatology, key clinical variables associated with functional deficit. Group MBIs, in general, have been shown to be safe, feasible, have high acceptance, and adherence (Louise et al., 2019; Jacobsen et al., 2020; Li et al., 2021), and they are also low stigmatizing, which may facilitate their practice, even for those with low "illness awareness".

MBIs have not been developed with the direct and explicit goal of reducing distress, and this principle applies equally to psychotic experiences. The goal of MBIs for psychosis is to help the individual relate differently to psychotic symptoms by relinquishing the control and struggle with delusions and hallucinations, which is ultimately the major source of suffering. The practice of mindfulness in PSD allows people experiencing hallucinatory phenomena to expose themselves to these experiences from another point of view, without reacting, identifying/melding with them, fostering psychological flexibility, emotional regulation, and acceptance. Acceptance appears to be a key component of mindfulness, especially related to difficulties in coping with symptomatology and functional impairment (Raugh & Strauss, 2023). MBIs foster self-understanding, promote self-esteem, and empower the individual in their process, facilitating acceptance (Ashcroft et al., 2012). Similarly, they encourage the observation and recognition of one's own emotions (Tong et al., 2016), as well as emotional regulation (Khoury et al., 2015). According to Chadwick (2019), mindfulness

in psychosis works through a central humanizing therapeutic process, characterized by key metacognitive insights and increased acceptance of both the psychotic experience and the self, not only based on commitment to mindfulness practice, but also on active and constructive engagement with the group process.

Adapting MBIs to Psychosis

The basic considerations when adapting the MBIs for PSD are as follows:

1. Mindfulness practice should be introduced as early as possible (Morris et al., 2019).
2. Practice in small groups, between six and eight participants, with the participation of two therapists or facilitators who combine experience and clinical training in psychosis and mindfulness practice.

This dual requirement reduces the number of practitioners who can apply the technique, but ensures the safety of the practice.

3. Reduce practice time to a maximum of 10 minutes (Chadwick, 2009, 2014), thereby reducing the attentional load of the task.
4. Give more frequent verbal guidance and continuous monitoring of the experience.

Therapists should offer brief orientations or comments (Chadwick, 2009, 2014) every 30-60 seconds, providing an "anchor" here and now that helps subjects to reconnect with the present experience. Prolonged silences should be avoided during the practice, and simple, concrete language should be used. The frequency of the guided orientations can progressively fade for people with more advanced proficiency, within a framework of safety.

5. Normalize the desire to engage in the fight with or avoidance of the psychotic experiences.

By reorienting the practice, psychotic experiences can be made explicit in a normalized way, without giving them a special or greater relevance than other thoughts and sensations.

6. Allow participants to rest or stop participating at any time if necessary.

It should be taken into consideration that attentional practice can be cognitively demanding, and that the existence of neuropsychological alterations in psychosis has been widely described (Sheffield et al., 2018). The feeling of "mental block" that may be caused by the acute symptomatology itself or that may appear secondary to the use of high-dose antipsychotics should also be taken into account.

7. Adaptation of self-report measures.

Measures for reporting the experience should be simplified to facilitate understanding and completion, adapting to the characteristics of the individual or group. In this sense, Jacobsen et al. (2011) used a visual analog scale with "bubbles" of increasing sizes representing different degrees of stress. The subsequent dialogue must have concrete experiential characteristics, addressing the nature of the experience and how it is experienced, avoiding metacognitive and religious references in the group format.

8. Practice outside of sessions is not an essential requirement.

Although the exercises and practices can be delivered digitally to stimulate practice at home, this should be considered as a non-mandatory option, so that each person can flexibly adapt the practice to his or her personal situation. There are people with psychosis who may benefit significantly from giving continuity to the practice at home (Jacobsen et al., 2022), while for others this could be a significant stressor, in addition to not having the physical presence of the therapist guide who acts as a regulator providing security and confidence. A recommended practice for between sessions could be Segal's three-minute meditation (Chadwick, 2009), due to its brevity and simplicity.

In addition to the interest and good practice of these general adaptations, our team points out the need to adapt the technique specifically taking into consideration the psychotic phenomenology of each person or group. Therefore, it is very important for the practitioner when selecting the appropriate approach for each patient to distinguish between two types of practices within mindfulness: focused attention and free monitoring (Lutz et al., 2008). This distinction is fundamental since they each refer to different processes and, therefore, must be proposed according to the specific characteristics of each individual.

General and Direct Focused Attention

To facilitate the selection and graduation of the practices we will differentiate between two levels of focused attention. Firstly, a *general focus*, aimed at facilitating observation and contact with anxiety and general discomfort, centered on breathing, the body, and the senses (environment), and secondly a *direct focus* on the psychotic phenomenology and its specific characteristics.

Focused Attention on General Discomfort

In general, the approach begins with practices aimed at getting in contact with the anxiety and general discomfort, without explicitly incorporating psychotic phenomena until the individual reaches a sufficient level of competence. Initially, the practice of attention focused on breathing is appropriate, since it is unusual for breathing itself to be associated with hallucinations or delusions.

However, it is important to keep in mind that delusions and cenesthetic and somatic hallucinations are common in psychosis and are generally not explored in depth by professionals, so the focus on breathing at the level of the chest or stomach can be an exercise of direct focus on the phenomenology, in the event of there being unexplored or uninformed psychotic symptoms associated with these parts of the body, which can generate significant discomfort.

General focusing exercises based on breathing, the body, and the senses can be applied, adapting the time, the use of language, and considering the clinical presentation, in all people regardless of their level of cognitive impairment, so these exercises are suitable for use in group formats. In acute states, general focusing exercises for short periods of time are also appropriate, due to the sensation of "mental block" (Laffite et al., 2021).

Adaptation to Trauma of the Attention Focused on General Distress

General focusing practices, aimed at specific exteroceptive sensations (feeling the soles of the feet, distinguishing sounds, etc.) or a journey through the different senses, are also suitable for the dissociative episodes that occur in psychosis, as they facilitate the

reestablishment of corporeality and contact with the present moment.

However, this must be applied with limitations when referring to the combination of psychotic experiences and trauma, especially in relation to sexual abuse, as the body itself may have acquired aversive qualities. Levine (2010; cited in Treleaven, 2018) notes that "a premature focus on [trauma-related] sensations can be overwhelming and ultimately lead to retraumatization."

Moreover, this approach should be considered exclusively in an individual format, without losing sight of the fact that a poor application of mindfulness can turn it into a strategy of distress control or experiential avoidance (Salgado, 2015, 2021), where the person learns to "escape" by permanently redirecting their attention to stimuli other than those that should be the object of intervention, or even, the person can learn/automatize dissociative processes or generalize them to different contexts, since "disconnection" is a way of trying to control or avoid the symptomatology. This implies the need for MBIs in SMD to be performed only by personnel with specific clinical training and experience.

Treleaven (2018) notes the possibility that certain post-traumatic symptomatology may be exacerbated during mindfulness practice, although he points out that "practiced with discernment, it may increase the ability to integrate trauma...improving self-regulation" (p.65). Thus, he posits some specific adaptations:

1. Individuals can choose the pace of the experience and decide whether or not to participate at any given moment.
2. Offer different practical alternatives in a flexible way (eyes open or closed, adapt the posture, etc.).
3. Incorporate movement into the practice
4. Watch for signs of possible dissociation.
5. Use exteroceptive sensations to help settle
6. Take care with the body scan
7. Be mindful of how our physical presence affects others, staying within the field of vision
8. Create a safe space, with adequate lighting, privacy, and advance notice of what is going to happen (predictable).
9. Create an olfactory neutral environment, refraining from the use of perfumes, incense, or air fresheners.

The author points out the relevance of maintaining practices within what is known as the *window of tolerance*, which refers to an intermediate state of activation capable of being managed by the individual. Staying within the window of tolerance implies shifting attention to favor stability, through the use of attention-stabilizing anchors.

On the other hand, the trauma derived from the stigma of the psychotic condition itself especially benefits from the group approach, where the person can normalize the experience, practice, and learn with relevant "others", since the models that share the characteristic of similarity (age, difficulties, etc.) are especially influential in the learning and generalization of behaviors. We therefore suggest the group format as the preferred approach to stigma.

Specific Focused Attention on Psychotic Symptoms

When an adequate level of practice has been acquired, it is possible to incorporate exercises involving direct focus, that is, attention directed specifically on the psychotic phenomenology. The exercises of direct focus (exposure) on the psychotic phenomenology and its specific characteristics will be adapted for each particular individual and will be performed in the safe context that the individual psychotherapeutic session facilitates.

Difficulties at the attentional level must be assessed beforehand, and the practice is not recommended if there are active psychotic symptoms and marked attentional deficits (moderate or severe) when sufficiently practiced anchors are not available. This precaution is explained by the fact that psychotic phenomena are powerful experiences that tend to impose themselves by exerting a magnet effect, so there will be significant difficulties in disengaging the person from them.

Symptom-specific focusing practices will be performed in individual therapeutic spaces until the person has an adequate level of training. The following is a contextual exposure procedure of our own, based on mindfulness.

Therapy Focusing on Voices. A Contextual View (Laffite et al., 2022, 2023)

Different types of attentional interventions have shown equally differential effects on auditory-verbal hallucinations. Madani et al. (2023) conducted a randomized clinical trial in which they compared the effects of three types-attentional avoidance, attentional focusing, mindfulness, and a control group-on the frequency and distress of hallucinations in patients with chronic psychosis. The authors found that all three types of strategies (avoidance, focusing, and mindfulness) can work to reduce the frequency of voices, but only mindfulness had effects on reducing distress. Moreover, in the case of focusing, there were detrimental effects on distress to voices, whereas attentional avoidance was not counterproductive.

Therapy focusing on voices (Bentall et al., 1994) proposed the approach to persistent hallucinatory phenomena based on the reduction of distress enabled by the (cognitive) reattribution and reinterpretation of the hallucinations to the individual him/herself, and not to the outside, as the source of origin of the voices.

Unlike the cognitive approach, Acceptance and Recovery Therapy by Levels of Impairment (ART) (Díaz-Garrido et al., 2021) does not seek a reinterpretation of the voices (controlling), but a distancing and a change of relationship with them, so that the focus on the voices will occur in successive stages:

1. *Focus on physical characteristics.* Full attention through the senses, including that of the active hallucinatory phenomenology, based on acceptance without judgment.

This procedure will also be used for somatic or cenesthetic hallucinations, redirecting the attention again and again to notice the sensations without judgment. The difficulty with this kind of phenomena lies in their interpretation, either in relation to their origin and causes, or to the feared consequences for health or life direction.

It is extremely important to note that the anchors used to redirect the attention must be chosen by each person after repeated practice of these in individual therapy, since the therapist's guidance to common anchors could lead the person to directly contact unsafe elements. Therefore, we recommend that redirection to the anchors during practice be done in a neutral way, directing individuals to their respective anchors or safe zones.

2. *Focusing on the content of the voices*, seeking acceptance and change of relationship in terms of their literalness, facilitating defusion. This practice can be generalized and physicalized.
3. *Acceptance* of the distress, without seeking modification or control of the hallucinatory experience and *Directing towards values*, despite the phenomenological activity.

Free Monitoring

The second type of practice to be distinguished is free monitoring, which consists of noticing and being aware of any internal or external experience that appears (radical openness) without reacting, letting it flow, without establishing a specific focus. Free monitoring presents in our opinion the following difficulties for its application in psychosis: 1) recognizing and continuously reevaluating the different changing sensory experiences requires a significant attentional demand, which may not be adequate for people with moderate or severe levels of cognitive impairment, 2) hallucinations are very powerful experiences that tend to impose themselves by exerting a magnet effect, 3) some psychoses, such as schizophrenia, involve a significant alteration of ipseity (Sass & Parnas, 2003; García Montes & Pérez Álvarez, 2003), this means that experiences such as what is known as "dual consciousness", involving the distinction between the *observing self* and the *experiencing self*, can be widely confusing. For a summary of the different adaptations see Table 1.

Table 1
Adaptations from ART for Mindfulness in PSDs (Laffite et al., 2022)

General focus	Specific focus	Free Monitoring
Acute patients Group format Little practical experience Dissociative episodes and trauma (individual)	Individual format Increased practical experience Assess application for moderate or severe attentional impairment and positive symptoms	Limited application Individual format High level of practical proficiency No moderate or serious cognitive impairment

Conclusions

MBIs adapted for psychosis are a psychotherapeutic tool that does not have as its direct objective the reduction or elimination of psychotic phenomena, but rather the acceptance of these phenomena, promoting psychological flexibility and emotional regulation. MBIs are flexible and adaptable to different clinical moments and therapeutic contexts, and they are complementary to other elements of the treatment.

Some adaptations are recommended for group application, such as: practicing in small groups with two therapists or facilitators, reducing the practice time, giving more frequent verbal guidance, and providing continuous follow-up of the experience, or adapting the self-report measures.

On top of these general recommendations, our team adds specific clinical adaptations according to the symptomatology of each individual, distinguishing between different techniques. When applying mindfulness in psychosis, we emphasize the importance of starting with practices based on focusing on the general discomfort produced by psychotic phenomena, without explicitly including them until an adequate level of practical competence is reached.

General focusing practices are also suitable for dissociative episodes that occur in psychosis, as they facilitate reestablishing embodiment and getting in touch with the present moment. Mindfulness practice will need to be adapted when there is trauma, and it will need to be done in the safe context of individual therapy. However, the stigma about psychosis itself will be addressed in group format.

Symptom-specific focusing practices will be performed in individual therapeutic spaces until the person has an adequate level of proficiency.

Due to the specific difficulties that free monitoring may present in psychosis, we suggest that it be applied in a limited manner and taking into consideration the specific characteristics of the person.

Although MBIs are a practice with enormous potential for the affective and functional improvement of people with psychosis, they can also be a significant stressor, so they should only be applied by professionals with specific clinical training, making specific adaptations and adjustments in relation to each person and their symptomatology.

Conflict of Interest

The authors expressly declare that there is no conflict of interest.

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