



DIGITAL PANTUN AS A LITERARY CRITICISM ECO-CRITICS: AN IMAGINATIONAL SPACE FOR IMPROVING EXPRESSION AND SOCIAL INTERACTION FOR PEOPLE WITH MENTAL DISABILITIES

Irfai Fathurohman^{1*}, Nur Mahardika², Himmatul Ulya³, Wawan Shokib Rondli⁴,
Riyan Dwi Cahyaningsih⁵

^{1,2,3,4}Universitas Muria Kudus, Kudus, Indonesia

⁵Universitas Negeri Semarang, Semarang, Indonesia

*Corresponding Author: irfai.fathurohman@umk.ac.id

Article History

Received : 29/08/2025

Revised : 03/11/2025

Accepted : 24/01/2026

Keywords:

Digital pantun,
Ecocriticism, Mental
disabilities, Imagination
therapy, Social
expression.

Abstract. The lack of creative expression space that is able to integrate literary aesthetic values with psychosocial functions, especially in building emotional balance and social interaction for people with mental disabilities, is an urgent issue in this study. The purpose of this study is to examine and develop the utilisation of digital pantun as a form of ecocriticism and literature criticism, as well as an imagination therapy medium for people with mental disabilities. The relationship between humans and nature, as expressed through ecological symbols and the imagination in the pantun, makes ecocriticism relevant to this research. The research method uses an interpretative qualitative approach with eco-critical analysis of digital pantun texts, as well as participatory observation and in-depth interviews to see the impact of the application of digital pantun in imagination therapy activities at the Muria Jaya Social Service Centre (RPSDM) Muria Jaya Kudus Regency. Research results show that digital pantuns infused with ecological imagination can be a fun means of expression, facilitating social communication among beneficiaries and building simple environmental awareness through poetic language. The integration of eco-criticism and imagination therapy forms an innovative model that not only strengthens the academic study of literature but also makes a real contribution to improving the quality of life for people with mental disabilities. This study confirms that literature, especially pantun, has social and therapeutic transformational power when contextualised in digital space and inclusive practice.

How to Cite: Fathurohman, I., Mahardika, N., Ulya, H., Rondli, W. S., & Cahyaningsih, R. D. (2026). DIGITAL PANTUN AS A LITERARY CRITICISM ECO-CRITICS: AN IMAGINATIONAL SPACE FOR IMPROVING EXPRESSION AND SOCIAL INTERACTION FOR PEOPLE WITH MENTAL DISABILITIES. *Prima Magistra: Jurnal Ilmiah Kependidikan*, 7(1), 208-217. <https://doi.org/10.37478/jpm.v7i1.6602>

Correspondence address:

Jl. Lkr. Utara, Kayuapu Kulon, Gondangmanis, Kec. Bae, Kudus,
Jawa Tengah. irfai.fathurohman@umk.ac.id

Publisher:

Program Studi PGSD Universitas Flores. Jln. Samratulangi,
Kelurahan Paupire, Ende, Flores.

primagistrauniflor@gmail.com

INTRODUCTION

Globally, the mental health crisis is a challenge that cannot be ignored: approximately one in two people will develop a mental disorder during their lifetime (McGrath et al., 2023). In 2019, approximately 970 million people were living with at least one mental disorder, and this number increased significantly during the COVID-19 pandemic (World Health Organization, 2022). Depression is a leading cause of disability worldwide, affecting over 300 million people, but nearly three-quarters of those living in low- and middle-income countries do not receive adequate treatment (World Health Organisation, 2017). These data confirm that mental disability is not just a medical issue, but a social and cultural one, reinforcing the urgency of creative and inclusive interventions. At the Muria Jaya RPSDM in Kudus Regency, the reality is amplified: people with mental disabilities face three interrelated challenges: (1) barriers to expression, namely difficulty naming feelings, formulating ideas, and communicating them safely; (2) emotional imbalance, easily provoked or plunged into affective emptiness; and (3) fragility of social interactions, characterized by stigma, a tendency to withdraw, and interrupted communication. This condition is in line with the global phenomenon, where people with mental disabilities experience social isolation and limited access to safe spaces for expression.

One solution that is gaining attention is digital mental health interventions (DMHIs). Systematic reviews and meta-analyses indicate that DMHIs have a moderately positive effect in treating depression and anxiety, especially when combined with human support

(facilitator/peer/mentor) to maintain therapeutic alliance and participant engagement (Eisner et al., 2025; Shankar et al., 2025). However, implementation research highlights the risk of low user engagement, leading the media to feel impersonal or decontextualized (Berardi et al., 2024). Based on these challenges and opportunities, this study presents the premise that a simple, familiar, and meaningful platform is needed, where participants are not merely consumers of content but creators of meaning and relationships. In this context, digital pantun, a rhythmic, concise, and visual version of traditional poetry, can transform into a medium for therapeutic imagination. Digital pantun allows participants to share ideas, organize feelings, and reconnect with the community and the environment, including nature, living spaces, objects, and other creatures, using an ecocritical approach (Lehtimaki et al., 2021).

Literature has a dual power: in the aesthetic realm, it brings to life the beauty of form, metaphor, and rhythm; while in the psychosocial ethical realm, it facilitates the processing of experiences, emotional regulation, and relationship building. In the context of therapy, poetry and pantun function as expressive media that can facilitate the naming of difficult emotions, provide a safe distance (distancing) for individuals to confront traumatic experiences, and open channels for constructive therapeutic communication. Recent synthetic reviews have shown that poetry therapy works through a multi-layered mechanism: catalyzing emotions, symbolizing experiences, strengthening the therapeutic alliance, and fostering in-depth self-reflection (Alfrey et al., 2021; 2022). Further studies have confirmed the effectiveness of this approach by demonstrating reduced stress and anxiety, and improved psychological well-being across diverse populations (Park et al., 2022; Stanley et al., 2024a). Furthermore, poetry-based approaches have been shown to strengthen resilience, increase feelings of connectedness, and open up spaces for empathy across individuals (Hynes et al., 2012; Stanley et al., 2024a).

Accordingly, bibliotherapy is considered an effective non-pharmacological intervention in public health contexts, particularly when structured and culturally tailored (Monroy-Fraustro et al., 2021). Recent meta-analyses have found that expressive writing and creative literacy practices contribute significantly to reducing symptoms of depression, anxiety, and stress (Guo, 2023; Mordechay et al., 2019). Recent developments have seen the integration of digital platforms further expand the reach of literature-based interventions, making therapy more inclusive, affordable, and accessible (Fischer-Grote et al., 2024; Lehtimaki et al., 2021). Thus, digital pantun, which integrates reading (bibliotherapy) and writing (poetry therapy) in a concise, interactive format, offers a safe, enjoyable, and structured space for people with mental disabilities in RPSDM to practice expression, manage emotions, and build social interactions. This intervention aligns with the trend of literary ecocriticism that emphasizes the relationship between humans and nature, making digital pantun a medium that is not only aesthetic, but also therapeutic and ecological (Weik von Mossner, 2020).

In literary narratives, including pantuns, characters' inner conflicts are often expressed through guilt, fear of rejection, or a sense of meaninglessness. This pattern parallels the inner experiences of people with intellectual disabilities, who find themselves in a tug-of-war between the need to be seen and accepted and the urge to hide and isolate themselves. The affective ecocriticism perspective emphasizes that emotions are not only present within the individual but are also orchestrated through natural imagery, namely water, trees, wind, and landscapes, which function as co-factors in shaping emotional resonance and empathy (Weik von Mossner, 2020). Other studies have shown that environmental representations in literary texts can trigger embodied emotions in readers, expanding affective connectedness with the nonhuman world (Lahtinen & Löytty, 2024). Thus, the ecological landscape in pantun not only serves as a narrative backdrop but also plays a role in emotional regulation, the internalization of experiences, and the channeling of collective affect (Gaard, 2020).

Furthermore, the econarratology approach emphasizes plot structure and ecological characterization, inviting readers or therapy participants to process the story-world they inhabit, while simultaneously negotiating personal agency (Caracciolo, 2018). Within this framework, digital pantun serves as a short narrative form that allows people with mental disabilities to construct "small plots" in everyday experiences, thereby practicing the ability to organize inner



conflict in an aesthetic form. Furthermore, narrative strategies based on humor and ecological parody have been shown to create a space of hope, calming affective tension without eliminating critical values (Klaubert, 2024; Skiveren, 2024). Contemporary research emphasizes the importance of multispecies narratives and "arts of attentiveness" in expanding ethical horizons, enabling individuals to see themselves as part of a broader web of life (van Dooren et al., 2016; Westerlaken et al., 2023). With its minimal, safe form of short stanzas and straightforward rhymes, digital pantun provides an opportunity for participants to channel inner conflicts symbolically, transforming guilt or fear of rejection into simple, structured, and therapeutic poetic expressions (Moulton, 2024; Rodewald, 2024).

Recent ecocriticism emphasizes the importance of the "arts of attentiveness" in the interspecies web of life, where humans are no longer positioned as the sole center of meaning (van Dooren et al., 2016). In the context of digital pantun, natural metaphors such as birds, rain, or soil serve not merely as linguistic decoration but as representations of relationships. These natural figures become "co-inhabitants" who help therapy participants channel their feelings, while simultaneously raising awareness that human experience is always closely connected to other life forms. This more-than-human approach challenges patterns of participation that have historically focused solely on humans. Through digital ecosystems, relationships with "others" (e.g., plants, water, and other ecological elements) can be reimagined, not as objects to be observed, but as narrative collaborators accompanying the creative process (Westerlaken et al., 2023). Even in situations of ecological grief, the idea of "mourning for the more than human" opens up new ethical and affective horizons, making it relevant when participants with mental disabilities are processing personal and collective losses (Rodewald, 2024).

Furthermore, the development of ecocriticism highlights plot as a methodological tool capable of integrating bodily experiences, space, history, and environmental justice into comprehensible narrative patterns (Moulton, 2024). For digital pantun, the simple exercise of constructing a micro-plot of two lines of sampiran and two lines of content becomes a way to practice sequencing experiences: from wild sensations to meanings that can be shared with others. At the practical level, ecological descriptions such as "wind in the leaves" or "morning light on the orphanage terrace" serve as calming grounding techniques, directing participants' attention to stable, familiar sensory details. Ecocriticism today goes beyond "sign-reading" to examining the concrete impact of ecological texts. Empirical ecocriticism, for example, shows that ecological fiction can influence readers' attitudes and broaden awareness (Schneider-Mayerson, 2018). Waves of affect in environmental reading are described by Weik von Mossner, (2020), while Lahtinen & Löytty (2024) cautions against the limitations of empirical approaches, particularly in measuring empathy for non-humans. All three emphasize the importance of designing pantun texts that evoke empathy while remaining measurable with clear indicators. Furthermore, some scholars advocate a more affirmative ecological critique: ecological humor and parody, for example, can foster hope without blunting critical thinking (Skiveren, 2024). Similarly, Klaubert (2024) calls for ecocriticism to transcend a "hermeneutics of suspicion," so that ecological reading not only dismantles illusions but also maintains hope and community agency. In digital pantun practice, lighthearted humor and affirmation of small steps, such as the courage to write a verse or address nature through metaphor, can help ease participants' social anxieties while maintaining a critical awareness of the power and ecological relations that surround them.

A synthetic review of poetry therapy identified several important mechanisms at work in poetic practice, such as emotional catalysis, symbolization of experiences, strengthening the therapeutic alliance, and self-reflection. These mechanisms are closely intertwined with a variety of positive effects, including reduced stress and anxiety, and increased meaning in life and social connectedness (Alfrey et al., 2021). Subsequent replication studies validated these mechanisms through context-rich observational data, strengthening the evidence that poetry can serve as a consistent and replicable therapeutic intervention across populations (Alfrey et al., 2022).

At the program implementation level, experimental research has shown that ten sessions of poetry therapy in nursing students successfully reduced stress and anxiety levels, and increased resilience and psychological well-being, with effects lasting up to five weeks after the intervention



(Park et al., 2022). Similarly, group-based bibliopoetry has been shown to increase student resilience, particularly when facilitated by trained personnel who can appropriately guide the creative process (Stanley et al., 2024b). These findings strengthen the conceptual basis of digital pantun as a concise, structured, and easily digitized variant of poetic practice worthy of development in RPSDM as a means of expression, emotional regulation, and safe social interaction.

In public health, bibliotherapy has been reported to be effective as a non-pharmacological intervention for various mental health issues. Its advantages lie in its relative affordability, ease of duplication, and widespread applicability in community contexts (Monroy-Fraustro et al., 2021). Meanwhile, expressive writing, or journaling, has been shown to have positive effects on symptoms of depression, anxiety, and stress. Recent meta-analyses have shown that structured writing activities can provide long-term benefits for mental health (Guo, 2023; Mordechay et al., 2019). These findings provide the basis for designing journaling activities in RPSDM, for example, using the simple format of "four lines for today" as a daily ritual to channel emotional experiences.

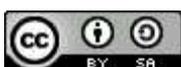
In addition to poetry and bibliotherapy, art therapy has been shown to have positive effects on school-age children. Experimental research has shown improvements in life function, sleep patterns, and a reduction in emotional and behavioral problems through arts interventions (Dedeken et al., 2020). An open-studio approach to art therapy, emphasizing media freedom, the creative process, and community engagement, is relevant to RPSDM. This approach aligns with the needs of participants who have varying paces and diverse media preferences (Finkel & Bat Or, 2020). These principles can be translated into a digital rhyme studio, a creative space held regularly using simple media such as digital devices or sheets, and a sharing cycle among participants.

Concurrently, the literature on digital mental health interventions increasingly confirms their effectiveness. Recent evidence suggests that digital programs for adolescents and young adults produce positive outcomes, particularly when their content is evidence-based and complemented by a human element (e.g., a facilitator, peer, or mentor) that maintains participant engagement (Lehtimaki et al., 2021). A meta-analysis of remote online interventions demonstrated their effectiveness in reducing psychological symptoms in children and adolescents, although important caveats remain regarding design heterogeneity and the need for standardization (Fischer-Grote et al., 2024). Furthermore, digital interventions based on positive psychology have been shown to promote increased well-being and optimism (Saboor et al., 2024). Therefore, in practice, the design of digital pantun with facilitators in RPSDM should integrate structured poetic content with communal rituals (synchronous sessions or mentoring), to maintain participant engagement and optimally achieve therapeutic goals. Based on this background, the purpose of this study is to analyse the representation of ecological symbols in digital pantun for people with mental disabilities and the dynamics of participants' social engagement in digital pantun.

RESEARCH METHODS

This research uses an interpretive qualitative approach with an instrumental case study design to explore the use of digital pantun within an ecocritical literary criticism framework as a medium for imaginative therapy for people with intellectual disabilities. This design was chosen because it is suitable for exploring the subjective, symbolic, and contextual experiences of participants (Creswell & Poth, 2018; Yin, 2018). Ecocritical studies in literary research are combined with arts-based research, enabling the integration of aesthetic, social, and psychological dimensions into the research process (Egerton, 2017). This methodological framework is relevant for research at RPSDM, as it provides space for participants to construct personal meaning while negotiating social and ecological relations through digital pantun.

The research subjects consisted of beneficiaries at the Muria Jaya Kudus RPSDM with the criteria of people with mild to moderate mental disabilities who were able to participate in creative activities. The data in this research is (1) Representation of ecological symbols in digital pantun



for people with mental disabilities, (2) Dynamics of participants' social engagement in digital pantun. The research process was carried out in six stages: orientation, introduction to digital pantun, text production, joint reflection, ecocritical analysis, and evaluation of the impact of expression and interaction. Data validity was strengthened by member checking, peer debriefing, and thick description techniques (Creswell & Poth, 2018; Nowell et al., 2017).

Data analysis was conducted using a two-layered approach. First, ecocritical analysis was used to interpret representations of nature, emotions, and human-environmental relations in digital pantun. Second, thematic analysis was used to identify patterns of emotional expression, social interactions, and therapeutic experiences of participants (Braun & Clarke, 2019). The results of the analysis were then integrated to produce a conceptual model of the function of digital pantun as a medium for ecocritical-based imagination therapy. The ethical aspects of the research were maintained through approval from the RPSDM institution, informed consent from participants' guardians, and confidentiality of personal data. This study adhered to the principles of research with vulnerable groups, ensuring that participation was voluntary, safe, and did not cause additional psychological burden (Flick, 2018; Suk et al., 2021). Thus, the applied method was not only scientifically valid but also sensitive to the specific circumstances of the participants.

RESULTS AND DISCUSSION

Analysis of Digital Pantun Texts Produced by Participants

The results of the analysis of digital pantun for people with mental disabilities show that people with mental disabilities tend to use images of nature in their poems. This is shown in Table 1.

Table 1. Representation of Ecological Symbols in Digital Pantun for People with Mental Disabilities

No.	Natural Imagery	Symbolization of Emotions	Function in Digital Pantun	Electronic Interpretation
1.	Rain	Sadness, loneliness	Depicts moody moods and feelings of loss	Nature is positioned as a co-actor that channels feelings of grief.
2.	Leaf	Fragility, change	Symbolizes both vulnerability and the dynamics of life	The human-nature relationship is understood as a natural cyclical process.
3.	River	The flow of feelings, the continuation of life	It becomes a metaphor for inner journey and social interaction.	Ecosystems are described as spaces of reflection and continuity.
4.	Bird	Freedom, hope	Describes the desire to escape from limitations	Nature as a symbol of freedom that gives the spirit of life
5.	Wind	Serenity, peace	Bringing a peaceful atmosphere after inner conflict	Non-human elements help regulate participants' emotions.
6.	Morning Light	Hope, optimism	Represents new beginnings, enthusiasm, and confidence in the future	The environment is seen as a source of inspiration and motivation

Based on Table 1, the symbol or image of nature used in the poem is not just an ethical ornament, but presents as a representation of the emotional experience of people with mental disabilities. Table 1 shows that, in poetry, rain for people with mental disabilities is a symbol of sadness. The wind is an image of tranquillity or peace, and light is a dream of hope.

The findings of this study confirm the potential of digital pantun as a form of ecocritical imagination therapy. First, in terms of self-expression, digital pantuns serve as emotional catalysts and symbols of experiences. This aligns with the findings of a review by Alfrey et al. (2021; 2022), which identified the mechanisms of poetry therapy as including emotional catalysis, reflection, and strengthening the therapeutic alliance. The application of digital pantun in RPSDM showed a similar pattern: participants were better able to name feelings through ecological metaphors, which in turn improved their affective connection with themselves and their environment.



Second, in terms of social interaction, digital pantun presents micro-flows that allow participants to organize shared experiences in a simple, shareable format. This aligns with the econarratology framework (Caracciolo, 2018), which views narrative as a space for negotiating personal and social agency. Initially passive, RPSDM participants became actively engaged through short responses, lighthearted humor, and mutual appreciation, demonstrating the integration of social values into literary practice.

Third, from an ecocritical perspective, digital pantun strengthens the arts of attentiveness (van Dooren et al., 2016; Westerlaken et al., 2023), namely the ability to pay attention to life across species and present them as cohabitants in narratives. The presence of natural symbols in digital pantun has been shown to trigger a calming grounding process, as Moulton (2024) and Weik von Mossner (2020) explains regarding ecological affect in literary texts. Participants can interpret nature not as a passive object but as an imaginative partner that accompanies the process of reflection.

Fourth, digital integration has been shown to expand access to therapy, consistent with findings from meta-analyses of digital mental health interventions (Fischer-Grote et al., 2024; Lehtimaki et al., 2021). However, this study emphasizes the importance of a facilitator's presence in maintaining participant engagement, echoing findings by Eisner et al. (2025) and Shankar et al. (2025) that digital interventions are more effective when supported by human resources. In RPSDM, facilitator support has been shown to be crucial for affirming participants' small steps and maintaining engagement.

Fifth, the findings regarding the role of humor and affirmation in digital pantun sessions support Skiveren (2024) and Klaubert (2024) ideas about the need for ecocriticism that affirms hope, rather than simply heaping on crises. With simple humor and praise in each verse, participants felt valued and encouraged to continue writing. This suggests that digital pantun therapy is not only emotionally therapeutic but also socially empowering.

The results show that pantun can be an effective medium of imagination to facilitate the expression and social interaction of people with mental disabilities in RPSDM Muria Jaya Kudus.

The Dynamics of Social Interactions

The results of observation and interviews during the therapy session showed an increase in the participants' social involvement, which can be seen in Table 2 and Figure 1.



Figure 1. Sosial Interaction During The Therapy Session

Based on Table 2, we can see that the increase in social involvement of people with disabilities increases from the initial passive to a more active state. Writing simple poems, reading poems, and responding positively to their friends' work help build social connections among them. This interaction shows the process of regulating collective emotions, with pantun functioning as a bridge to channel feelings, receive inner experiences, and build social connections. The interview reinforces this finding: the participants felt "lighter" after writing a pantun, and some

stated that the pantun helped them "talk without having to tell a long story."

Tabel 2. Obsevation Result about Dynamics of Participants' Social Engagement in Digital Pantun Therapy

No.	Finding Indicators	Initial Conditions of Participants	Changes After 2–3 Sessions	Supporting Evidence (Observation/Intervie)
1.	Social engagement	Passive, withdrawing, refusing to interact	Start getting involved in writing, reading, and responding to comments	Observation: participants gave more positive comments friends' work.
2.	Creative expression	Not yet brave enough to write verses	Write simple verses and dare to read them	Observation: Several participants read their work in front of the group
3.	Collective emotion regulation	Emotions tend to be suppressed, and the atmosphere is silent	Pantuns serve as a bridge to share feelings, creating a warmer atmosphere.	Observation: Spontaneous laughter, smiles, and appreciation appeared.
4.	Perception of personal benefits	Find it difficult to express feelings	Feeling 'lighter' after writing pantun	Interview: Participants stated that pantun helps 'to talk without long stories'
5.	Social interaction	Minimal communication between participants	Social connections occur through mutual listening and responding.	Observation: participants greet and respond to their peers' work

Furthermore, the open studio approach (Finkel & Bat Or, 2020) allows participants the flexibility to choose their own theme, style, and medium (handwritten or digital). This approach has been shown to foster a safe environment where participants can express themselves at their own pace. This data is consistent with previous research emphasizing the importance of inclusive creative spaces in art therapy (Dedeken et al., 2020; Stanley et al., 2024a).

Thus, this study provides both theoretical and practical contributions. Theoretically, the study expands ecocritical studies within the realm of literary therapy practice, particularly by integrating poetry therapy and econarratology models into the context of mental disabilities. Practically, this research demonstrates that digital pantun can be designed as an inclusive imagination therapy model that is easy to implement, affordable, and culturally relevant. This is crucial for the development of more creative and humanistic social service policies in supporting people with mental disabilities.

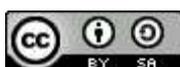
CONCLUSIONS AND SUGGESTIONS

This study confirms that digital pantun with an ecocritical framework has significant potential as an imaginative therapy medium to enhance expression, emotional balance, and social interaction among people with mental disabilities at the Muria Jaya Kudus RPSDM. The analysis shows that the use of ecological imagery in digital pantun functions not only as an aesthetic ornament, but also as a symbolic medium that facilitates emotional expression, grounding, and the creation of a safe space for self-reflection. Socially, digital pantun contributes to building interactions between participants through concise communication, humor, and mutual appreciation, thus encouraging a sense of togetherness. The presence of a facilitator plays a crucial role in maintaining engagement and involvement, reinforcing the finding that digital interventions are more effective when supported by human presence. This confirms that digital technology and traditional literary practices can be combined to create an inclusive, culturally relevant and accessible therapy space. Theoretically, this study broadens the scope of ecocritical studies by integrating it into literary therapy practices, and supports the frameworks of poetry therapy and econarratology as a conceptual basis. Practically, the digital pantun ecocritical model offers an alternative, inexpensive, creative, and sustainable non-pharmacological intervention for assisting people with mental disabilities. Thus, digital pantun can be positioned not only as a form of literary work, but also as a means of psychosocial and cultural empowerment that has a real impact on improving the quality of life of people with mental disabilities.

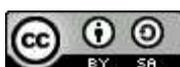


REFERENCES

- Alfrey, A., Field, V., Xenophontes, I., & Holttum, S. (2021). Identifying the mechanisms of poetry therapy and associated effects on participants: A synthesised review of empirical literature. In *Arts in Psychotherapy* (Vol. 75). <https://doi.org/10.1016/j.aip.2021.101832>
- Alfrey, A., Field, V., Xenophontes, I., Springham, N., & Holttum, S. (2022). Identifying the Mechanisms of Poetry Therapy and Perceived Effects on Participants: A Synthesised Replication Case Study. *Arts in Psychotherapy*, 78. <https://doi.org/10.1016/j.aip.2022.101882>
- Berardi, C., Antonini, M., Jordan, Z., Wechtler, H., Paolucci, F., & Hinwood, M. (2024). Barriers and facilitators to the implementation of digital technologies in mental health systems: a qualitative systematic review to inform a policy framework. *BMC Health Services Research*, 24(1). <https://doi.org/10.1186/s12913-023-10536-1>
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. In *Qualitative Research in Sport, Exercise and Health* (Vol. 11, Number 4). <https://doi.org/10.1080/2159676X.2019.1628806>
- Caracciolo, M. (2018). Notes for an econarratological theory of character. *Frontiers of Narrative Studies*, 4(s1). <https://doi.org/10.1515/fns-2018-0037>
- Creswell, J. W., & Poth, C. N. (2018). Qualitative Inquiry & Research Design Choosing Among Five Approaches Fourth Edition John. In *Journal of Physics A: Mathematical and Theoretical* (Vol. 44, Number 8). https://pubhtml5.com/enuk/cykh/Creswell_and_Poth_2018_Qualitative_Inquiry_4th
- Dedeken, P., Nickenig Vissoci, J. R., Sebera, F., Boon, P. A. J. M., Rutembesa, E., & Teuwen, D. E. (2020). Validity, Reliability, and Diagnostic Cut-off of the Kinyarwanda Version of the Hamilton Depression Rating Scale in Rwanda. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.01343>
- Egerton, C. (2017). Leavy, P. (2015). Method meets art: Arts-based research practice (2nd ed.). New York: Guilford. *The Canadian Journal of Action Research*, 18(1). <https://doi.org/10.33524/cjar.v18i1.322>
- Eisner, E., Faulkner, S., Allan, S., Ball, H., Di Basilio, D., Nicholas, J., Priyam, A., Wilson, P., Zhang, X., & Bucci, S. (2025). Barriers and Facilitators of User Engagement With Digital Mental Health Interventions for People With Psychosis or Bipolar Disorder: Systematic Review and Best-Fit Framework Synthesis. In *JMIR Mental Health* (Vol. 12). JMIR Publications Inc. <https://doi.org/10.2196/65246>
- Finkel, D., & Bat Or, M. (2020). The Open Studio Approach to Art Therapy: A Systematic Scoping Review. In *Frontiers in Psychology* (Vol. 11). <https://doi.org/10.3389/fpsyg.2020.568042>
- Fischer-Grote, L., Fössing, V., Aigner, M., Fehrmann, E., & Boeckle, M. (2024). Effectiveness of Online and Remote Interventions for Mental Health in Children, Adolescents, and Young Adults After the Onset of the COVID-19 Pandemic: Systematic Review and Meta-Analysis. In *JMIR Mental Health* (Vol. 11, Number 1). <https://doi.org/10.2196/46637>
- Flick, U. (2018). An Introduction to Qualitative Research - Uwe Flick - Google Books. In *SAGE Publications*. <https://doi.org/https://doi.org/10.4135/9781036231712>
- Gaard, G. (2020). New Ecocriticisms: Narrative, Affective, Empirical and Mindful. *Ecozon@: European Journal of Literature, Culture and Environment*, 11(2). <https://doi.org/10.37536/ecozona.2020.11.2.3520>
- Guo, L. (2023). The delayed, durable effect of expressive writing on depression, anxiety and stress: A meta-analytic review of studies with long-term follow-ups. *British Journal of Clinical Psychology*, 62(1). <https://doi.org/10.1111/bjc.12408>
- Hynes, A. M., Hynes-Berry, M., Bálint, Á., & Magyari, J. (2012). Biblio/Therapy Poetry – The Interactive Process: A Handbook. *Religions*, 11(3). <https://doi.org/10.4324/9780429052019>
- Klaubert, H. (2024). Beyond an Environmental “Hermeneutics of Suspicion.” *Environmental Humanities*, 16(2), 512–528. <https://doi.org/10.1215/22011919-11150147>



- Lahtinen, T., & Löytty, O. (2024). On the Limits of Empirical Ecocriticism: Empathy on Non-Human Species and the Slow Violence of Climate Crisis. *Green Letters*, 28(1–2), 77–90. <https://doi.org/10.1080/14688417.2024.2403416>
- Lehtimäki, S., Martić, J., Wahl, B., Foster, K. T., & Schwalbe, N. (2021). Evidence on digital mental health interventions for adolescents and young people: Systematic overview. In *JMIR Mental Health* (Vol. 8, Number 4). <https://doi.org/10.2196/25847>
- McGrath, J. J., Al-Hamzawi, A., Alonso, J., Altwaijri, Y., Andrade, Laura H., Bromet, E. J., Bruffaerts, R., Caldas de Almeida, J. M., Chardoul, S., Chiu, W. T., Degenhardt, L., Demler, O. V., Ferry, F., Gureje, O., Haro, J. M., Karam, E. G., Karam, G., Khaled, S. M., Kovess-Masfety, V., ... Zaslavsky, A. M. (2023). Age of onset and cumulative risk of mental disorders: a cross-national analysis of population surveys from 29 countries. *The Lancet Psychiatry*, 10(9). [https://doi.org/10.1016/S2215-0366\(23\)00193-1](https://doi.org/10.1016/S2215-0366(23)00193-1)
- Monroy-Fraustro, D., Maldonado-Castellanos, I., Aboites-Molina, M., Rodríguez, S., Sueiras, P., Altamirano-Bustamante, N. F., de Hoyos-Bermea, A., & Altamirano-Bustamante, M. M. (2021). Bibliotherapy as a Non-pharmaceutical Intervention to Enhance Mental Health in Response to the COVID-19 Pandemic: A Mixed-Methods Systematic Review and Bioethical Meta-Analysis. In *Frontiers in Public Health* (Vol. 9). <https://doi.org/10.3389/fpubh.2021.629872>
- Mordechay, D. S., Nir, B., & Eviatar, Z. (2019). Expressive writing - Who is it good for? Individual differences in the improvement of mental health resulting from expressive writing. *Complementary Therapies in Clinical Practice*, 37. <https://doi.org/10.1016/j.ctcp.2019.101064>
- Moulton, A. A. (2024). Plotting a New Course for Environmental Humanities. *Environmental Humanities*, 16(2), 271–290. <https://doi.org/10.1215/22011919-11150035>
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods*, 16(1). <https://doi.org/10.1177/1609406917733847>
- Park, J. H., Kim, J. Y., & Kim, H. O. (2022). Effects of a group poetry therapy program on stress, anxiety, ego-resilience, and psychological well-being of nursing students. *Archives of Psychiatric Nursing*, 41. <https://doi.org/10.1016/j.apnu.2022.07.027>
- Rodewald, L. (2024). Barnett, Joshua Trey. (2022). Mourning in the Anthropocene: Ecological Grief and Earthly Coexistence. *Journal of Ecohumanism*, 3(1). <https://doi.org/10.33182/joe.v3i1.2991>
- Saboor, S., Medina, A., & Marciano, L. (2024). Application of Positive Psychology in Digital Interventions for Children, Adolescents, and Young Adults: Systematic Review and Meta-Analysis of Controlled Trials. *JMIR Mental Health*, 11, e56045. <https://doi.org/10.2196/56045>
- Schneider-Mayerson, M. (2018). The influence of climate fiction an empirical survey of readers. *Environmental Humanities*, 10(2). <https://doi.org/10.1215/22011919-7156848>
- Shankar, R., Bunde, A., & Mukhopadhyay, A. (2025). The Effectiveness of Virtual Reality–Based Mindfulness Interventions for Managing Stress, Anxiety, and Depression: Protocol for a Systematic Review and Meta-Analysis of Randomized Controlled Trials. *JMIR Research Protocols*, 14, e68231. <https://doi.org/10.2196/68231>
- Skiveren, N. (2024). Humor as Hope?: On Critique and Affirmation in Ecological Parody and Satire. *Environmental Humanities*, 16(2), 441–459. <https://doi.org/10.1215/22011919-11150075>
- Stanley, N., Stanley, L., & Nguyen, K. (2024a). Evaluating the use of biblio-poetry therapy to improve resilience in undergraduates. *Journal of Poetry Therapy*, 1–13. <https://doi.org/https://doi.org/10.1080/08893675.2024.2413598>
- Stanley, N., Stanley, L., & Nguyen, K. (2024b). Evaluating the use of biblio-poetry therapy to improve resilience in undergraduates. *Journal of Poetry Therapy*, 1–13. <https://doi.org/10.1080/08893675.2024.2413598>
- Suk, J. W., Soltis-Vaughan, B., Mahato, K., & Hwang, S. (2021). Practical and ethical issues in



- pediatric psychopharmacology: Introductory considerations. *Psychiatric Annals*, 51(10).
<https://doi.org/10.3928/00485713-20210913-01>
- van Dooren, T., Kirksey, E., & Münster, U. (2016). Multispecies Studies Cultivating Arts of
Attentiveness. *Environmental Humanities*, 8(1).
https://www.researchgate.net/publication/305362247_Multispecies_Studies_Cultivating_Arts_of_Attentiveness
- Weik von Mossner, A. (2020). Affect, Emotion, and Ecocriticism. *Ecozon@: European Journal
of Literature, Culture and Environment*, 11(2).
<https://doi.org/10.37536/ecozona.2020.11.2.3510>
- Westerlaken, M., Gabrys, J., Urzedo, D., & Ritts, M. (2023). Unsettling Participation by
Foregrounding More-than-Human Relations in Digital Forests. *Environmental Humanities*,
15(1). <https://doi.org/10.1215/22011919-10216173>
- World Health Organisation. (2017). Depression and other common mental disorders: global
health estimates. *World Health Organization*.
<https://www.who.int/publications/i/item/depression-global-health-estimates>
- World Health Organization. (2022). *Mental disorders. Factsheet*. Mental Disorders.
<https://www.who.int/news-room/fact-sheets/detail/mental-disorders>
- Yin, R. K. (2018). Case Study Research and Applications: Design and Methods (6th ed.). In
Angewandte Chemie International Edition, 6(11), 951–952. (Number Mi). Thousand Oaks,
CA: Sage. <https://uk.sagepub.com/en-gb/eur/case-study-research-and-applications/book250150>

