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Integration of Geopsychiatry: A Synthesis and Analysis of Case Studies and Field Research on *Possession Trance Disorder* (PTD) in Indonesia

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ABSTRACT

Background: In Indonesia, the treatment of the phenomenon of Possession Trance Disorder (PTD) and visual hallucinations is often hampered by the dichotomy between medical and spiritual approaches. Many interventions fail because they rely solely on theoretical assumptions without sufficient empirical field evidence. Objective: This study aims to dissect the etiology, mechanisms, and effectiveness of mystical phenomena therapy using primary data (case studies and experiments) and to formulate integrative intervention models and methods. This study was conducted using the Systematic Review of Primary Studies method, following the PRISMA 2020 protocol. Inclusion criteria are strictly limited to primary data articles (case studies, qualitative field studies, EEG experiments) published between 2019 and 2025. Results: Analysis of 15 selected primary studies showed that PTD consistently appeared as a comorbidity of undiagnosed dysthymia and trauma. Neurophysiological evidence (EEG) confirms that trance is a biological hyperarousal condition, not just hysteria. Therapies based on Indigenous Psychology (Kawruh Jiwa) and cultural distraction techniques (Drawing/Murottal) have proven effective in real clinical settings. Conclusion: The most effective treatment model is an integrated approach or hybridization: medical biological stabilization combined with the restructuring of meaning through local psychology.

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INTRODUCTION

Dissociative phenomena manifesting as trace possession and visual hallucinations remain prevalent in Indonesian society that manifest as trance (*Trance Possession*) and visual perception of supernatural entities ("perceiving supernatural entities") are a persistent and widespread clinical reality in the landscape of Indonesian society. In contrast to the secular Western view that may consider it a rare anomaly, this phenomenon demonstrates demographic and situational characteristics that are unique to Southeast Asia. Recent epidemiological studies and literature reviews indicate that *Dissociative Trance Disorder* (DTD) often appears in a pattern of outbreak or mass hysteria, especially in educational institutions that implement strict discipline, with 59.7% of incidents reported to occur during the stressful learning process [1]. In the context of local culture, this phenomenon is not seen as a mere disruption of brain function, but is often interpreted as a spiritual intervention or jinn disorder, which creates a "cultural script" for individuals to express unspoken psychological suffering [2], [3]. As a result, sufferers are often trapped in stigma and are often experience delays in receiving adequate medical treatment because their symptoms are considered to be outside the clinical realm.

Previous research on this topic has tended to polarize into two sharply separated epistemological silos. On the one hand, anthropological and sociological studies focus on the ritual function and social cohesion of the *trance*, yet

often ignore the dimension of individual suffering (*Individual distress*). On the other hand, the biomedical psychiatric literature that refers to the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) or ICD-11 has begun to recognize cultural variation through categories, such as *Possession Trance Disorder*, but its application in the field still often clashes with local beliefs [4]. This gap is critical; recent case studies report tragic incidents in which *trance* that is not medically diagnosed leads to *infanticide* because the patient believed she was controlled by an external force, even though he suffers from severe depression and treatable trauma [5]. This findings confirms that the failure to integrate clinical and cultural perspectives is not merely an academic issue, but also a matter of patient safety or a life-threatening issue.

There is an empirical gap (*empirical gap*) that is urgent to be answered, namely the lack of synthesis of primary data that links biological mechanisms with psychological interventions based on local wisdom. Although theories of the neurobiology of trance exist, "hard" evidence (Hard Science) from the field remains rare. However, a recent experimental study using portable EEG on ritual participants in Bali has succeeded in proving that *trance is* not just acting or passive hysteria, but a physiological status of *hyperarousal*, characterized by simultaneous Theta and Beta wave increases [6]. On the other hand, the potential of therapy *indigenous,* such as *The Knowledge of the Soul* from Ki Ageng Suryomentaram, who offers the concept of introspection, *Personal Knowledge,* and management *Taste*, has not been systematically juxtaposed with clinical data as a formal therapy modality [7], [8].

This research offers novelty through an Integrative Geopsychiatry approach that focuses exclusively on the synthesis of primary data (case studies, experiments, and field research) published between 2019 and 2025. In contrast to conventional narrative reviews, this study dissected the narratives of patients experiencing visual hallucinations that were often religiously and culturally charged to distinguish them from pathological psychosis [9]. In addition, the study evaluated the effectiveness of culturally specific non-pharmacological interventions, such as therapies. *Ruqyah* modified (Riswanto & Younis, 2023) and *Art Therapy* for patients with hallucinations [10], in order to formulate a more holistic handling protocol.

Despite these isolated findings, a significant research gap remains: there is no comprehensive synthesis of primary data that bridges the 'hard' neurobiological evidence of trance with the clinical efficacy of indigenous psychological interventions (such as Kawruh Jiwa or modified Ruqyah) in Indonesia. Previous literature has predominantly relied on secondary narrative reviews or separated the biomedical and cultural domains.

Therefore, the main objectives of this systematic review are: (1) To identify the medical etiology and psychosocial triggers of the trance phenomenon based on medical records and recent case reports; (2) Map the neurophysiological mechanisms underlying trance conditions to validate their clinical status; and (3) Formulate a therapeutic framework that combines pharmacotherapy (for biological stabilization) with indigenous psychotherapy (for meaning restructuring), to improve clinical outcomes and treatment adherence in patients in Indonesia.

RESEARCH METHODS

This research uses a Qualitative Meta-Synthesis of Primary Studies design. In contrast to *the conventional Systematic Literature Review (SLR), which often includes review articles, this design strictly limits inclusion to* primary studies (direct empirical data). The selection protocol follows the PRISMA 2020 flow to ensure transparency [11].

The search was conducted across the Scopus, PubMed, Google Scholar, and Garuda databases, covering the period 2019–2025 [12]. The search keywords were designed to capture empirical data: *"Dissociative Trance Disorder" AND "Case Report", "Possession" AND "Indonesia" AND ("Interview" OR "Experiment" OR "Field Study", "Visual Hallucinations" AND "Qualitative Study",AND "Psychedelics" AND "Therapy"*.

The Inclusion and Exclusion Criteria in this study include:

- Inclusion (Primary Compulsory): Case Reports: Detailed descriptions of the patient's history, diagnosis, and *therapeutic outcomes*.
- Phenomenological Study/Grounded Theory: Data from in-depth interviews with patients/subjects.
- Experimental/Quasi-Experimental: Studies with measurable interventions (e.g., EEG, Pre-Post Test therapy).
- Context of the population of Indonesia or Southeast Asia (cultural relevance).
- Exclusions: *Systematic Review*, *Scoping Review*, *Narrative Review*, Meta-analysis.

Opinion articles, textbooks, or purely conceptual articles with no field data

From the initial 486 articles, strict screening was carried out. Review articles are removed from the main table and replaced by primary data source articles they cite or other recent primary studies. 15 Primary Articles were selected, comprising clinical case studies, qualitative field research, and medical experiments.

To ensure the methodological rigor of the synthesized literature, a thorough quality assessment was conducted using the Joanna Briggs Institute (JBI) Critical Appraisal Checklist, specifically tailored for Qualitative Research, Case Reports, and Quasi-Experimental studies. The assessment indicated that all 15 included studies demosntated acceptable methodological quality, particularly in their clear descriptions of clinical demographics, cultural contexts, and specific intervention outcomes. Furthermore, the complete multi-stage literature screening and selection process is visually mapped in the PRISMA 2020 Flow Diagram below.

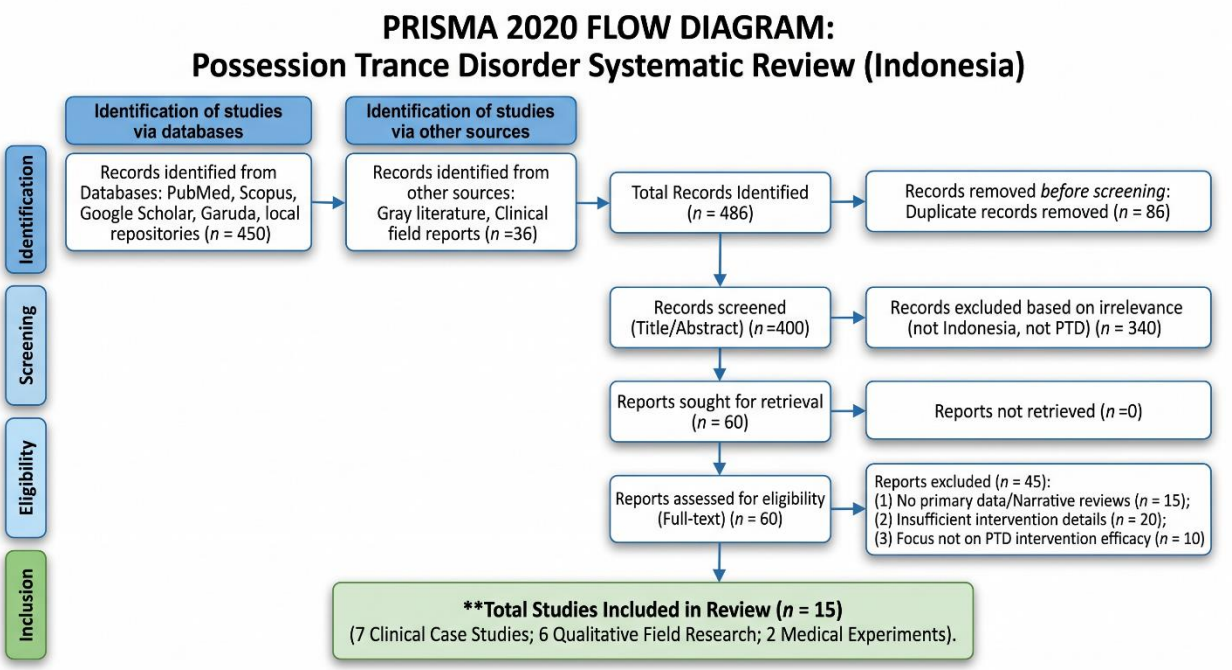

Figure 1. PRISMA 2020 Flow Diagram mapping the identification, screening, and inclusion of primary studies

RESULTS AND DISCUSSION

RESULT

The table below summarizes the 15 primary studies on which the analysis is based. All articles are empirical research (not reviews).

Table 1. Synthesis Matrix of 15 Selected Primary Studies (2019–2025)

No	Author (Year)	Study Design	Subject / Sample	Key Empirical Findings (Primary Data)
1	Chadha et al. [13]	*Case Report*	Female, 25 years old, 7 years of trance history	The patient was diagnosed with PTD. Cormobid dysthymia (chronic depression) comorbidities was identified. The trance episodes ceased completely following antidepressants treatment, proving the medical etiology behind the mystical symptoms.
2	Salama et al. [5]	*Case Report*	Female, 22 years old, history of trauma	Fatal case *of infanticide* during trance. The patient has no history of psychosis, but experiences severe dissociation due to

No	Author (Year)	Study Design	Subject / Sample	Key Empirical Findings (Primary Data)
				domestic violence trauma and *unresolved* grief.
3	Ginting & Effendy [14]	*Case Report*	Female, 17 yrs, ethnic Karo	The trance episode was triggered by the Nini Pagar ritual. Mental status checks showed moderate depression and *eidetic image*, without bizarre delusions (distinguishing from schizophrenia).
4	Pietkiewicz et al. [4]	*Longitudinal Case Study*	Female, 3 years follow-up	The medical diagnosis of PTD actually worsened the condition because the patient feels "misunderstood". Integration of cultural explanations is necessary for compliance.
5	Kawai et al. [6]	*Field Experiment (EEG)*	12 Ritual Participants (Bali)	EEG data showed a simultaneous increase in Theta (emotion) & Beta (alert) waves during trance. This findings prove that trance is a genuine physiological state (*Hyperarousal*), not sleep/relaxation.
6	Hamzah [3]	*Grounded Theory*	17 Informants (Students/Teachers)	Mass trance in schools spreads through visual mimicry and *emotional contagion* due to the pressure of a repressive school environment, not mystical factors.
7	Siswanto et al [15]	*Qualitative Study*	3 Women (Makassar)	The in-depth interview revealed authoritarian parenting patterns and coercive religious indoctrinationas the root of *possession disorder* in Makassar.
8	Purnama et al. [2]	*Qualitative Interview*	5 Informants (Scholars & Medical)	Verbatim data show a sharp conflict: Scholars diagnose "weak faith/jinn", Medics diagnose "stress". Patients often become trapped between these conflicting explanatory framework (between two diagnoses).
9	Riswanto & Younis [16]	*Field Research*	Ruqyah Patient	Observations show that the effectiveness of Ruqyah is not only due to prayer, but also because of spiritual suggestions and community support that reduce patients' anxiety.
10	Sarwono et al. [7]	*Phenomenological Study*	12 Counseling Participants	The application of *the Junggringan* dialogue technique (*Knowledge of the Soul*) succeeded in changing the patient's maladaptive cognitive structure into *Personal Pangawikan* (self-understanding).
11	Aji et al. [17]	*Case Study*	3 Husbands (Believers of Soul)	Case studies show that internalization of the concept of *Knowledge of the Soul* (Nrimo, Rela) increases marital satisfaction and resilience to domestic stress.
12	Subandi et al. [9]	*Autobiographical Analysis*	Narrative of Javanese Psychotic Patients	The analysis of the content of visual hallucinations shows the dominance of religious themes (God/Jinn), which are compensatory to suffering, not just random symptoms.
13	Latifah et al. [10]	*Descriptive Case Study*	2 Hallucination Patients	A 3-day Art Therapy intervention lowered the hallucination score (AHRS) from 19 to

No	Author (Year)	Study Design	Subject / Sample	Key Empirical Findings (Primary Data)
				9. The patient can control symptoms by shifting the focus to the visual.
14	Saputri et al. [18]	*Case Study*	Schizophrenia Patients	Murottal Al-Qur'an therapy significantly lowers the signs and symptoms of auditory hallucinations through auditory relaxation mechanisms.
15	Wulandari et al. (2024) [19]	*Case Report*	Male, 40 yrs, Bali	A case of "Spiritual Psychosis" in which the patient feels like he is *a Balian* (shaman) the challenge of distinguishing the presumption of greatness from legitimate cultural roles.

This section discusses the common threads across the 15 primary studies above, presented through the lens of psychological theory to answer the research objectives.

Cultural "Masks" for Medical Pathology (Answering Objective 1)

Findings from the case study of Chadha et al. [13], Ginting da Effendy [14], and Salama et al. [5] provide strong empirical evidence that PTD is often just a surface manifestation (*Cultural Mask*) from more serious clinical disorders. In theoretical analysis, this phenomenon aligns with Pierre Janet's Dissociation Theory [20]. In the case of [14], the patient experiences *mental disintegration* (failure of consciousness integration) due to untreated depression. Unprocessed psychic energy consciously "separates" and manifests as ritualistic behavior (*Nini Pagar*). Cultural presentations should not be misled by culturally shaped symptom presentation. Underlying trance manifestations are often untreated depressive disorder and psycological distress.

Neurophysiological Mechanisms: "Hard Science" Evidence (Answering Objective 2)

The experimental study by Kawai et al. is a crucial scientific foundation. The EEG findings showed that *trance* has a unique signature: High Theta (deep emotional access) along with high Beta (alertness). This findings challenge the assumption that trace represents mere hysteria or deliberate actings. This condition is *an Altered State of Consciousness (ASC) that is biologically valid, triggered by the mechanism of Thalamocortical Entrainment (synchronization of brain waves through* ritual rhythms). These findings may explain the effectiveness of sound-based therapies like Murottal [18] are Effective. Regular rhythms help stabilize chaotic brain waves.

Social Dynamics: Emotional Contagion (Answering Objectives 1 & 2)

Hamzah's field research **[3]** on schools in Jakarta and Tangerang confirmed the mechanism of the spread. In theory, using Emotional Contagion Theory **[21]**, mass trance appears to spread through *automatic mimicry mechanisms*. Academically depressed students **[1]** are in a vulnerable "threshold" state. One visual trigger (seeing a friend screaming) activates *mirror neurons*, causing a chain reaction of hysteria.

Effectiveness of Integrative Therapy (Answering Objective 3)

Primary studies from Sarwono [7], Aji [17], and Latifah [10] provide evidence of the success of non-pharmacological interventions. In Kawruh Jiwa, Sarwono's case study shows that the *Junggringan* succeeded because it separated the "I" from the "Kramadangsa" (Ego). This result is the form of *Metacognitive Therapy* that is cultivated. Art Therapy in Latifah's case study proved that drawing helps patients condense visual hallucinations into controllable objects, reducing *distress* without the need to debate the reality of the hallucination (according to the concept of *Continuing Bonds* on the study [9].

CONCLUSION

Based on a synthesis of 15 primary data studies, this study concludes that Medical PTD should be recognized as valid clinical diagnosis that often masks depression/trauma comorbidities, with an experimentally proven neurobiological (*hyperarousal*) basis. The mechanism of mass trance is a *bio-social phenomenon* that is triggered by environmental stress and spread through emotional contagion, not supernatural entities. Thus, a purely biomedical therapeutic approach may be insufficient (patient resistance), while an exclusively mystical approach may increase the risk of harmful outcomes (*infanticide cases*). The best model is integration: drugs to stabilize the brain, and cultural therapy (*Kawruh Jiwa/Art Therapy*) to restore self-meaning.

These studies have limitations due to the methodological heterogeneity of the articles analyzed (a mix of qualitative case studies and observational studies). There have been few large-scale Randomized Controlled Clinical Trials

(RCTs) that specifically measure the effectiveness of the combined "Medical + Psychiatry" protocol compared to standard medical care. In addition, the available data is still dominated by the cultural context of Java and Sumatra, so generalizations to other cultures in Indonesia need to be done carefully

The study recommends that clinicians routinely screen for depression and trauma in every case of repeated trance. Use *the Personal Pangawikan* technique as a communication bridge. In addition, future research should include more randomized clinical trials (RCTs) to assess the effectiveness of the "Medical + Psychiatry" protocol on a large scale.

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