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The Anxious Pregnancy Across Three Trimesters: A Primary-Care Case Series of Non-Pharmacological, CBT-Based Multidisciplinary Management of Antenatal Anxiety

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A B S T R A C T

Introduction. Antenatal anxiety is among the most common yet most overlooked complications of pregnancy and, left unrecognized, is associated with preterm birth, low birth weight, impaired bonding, and adverse child neurodevelopment. Evidence for first-line, non-pharmacological management within primary care—where most women in low-resource settings receive care—remains sparse.

Case presentation. We describe three pregnant women managed at an Indonesian community health center (UPTD Puskesmas Susut I, Bali), spanning all three trimesters. Case 1 was a 20-year-old primigravida at 9 weeks with a generalized anxiety presentation driven by an absent seafaring husband and unfiltered online health information (Beck Anxiety Inventory [BAI] 28, Perinatal Anxiety Screening Scale [PASS] 25, Edinburgh Postnatal Depression Scale [EPDS] 14). Case 2 was a 29-year-old multigravida at 20 weeks with anxiety and mild anemia rooted in a previous traumatic low-birth-weight delivery and in-law pressure (BAI 24, PASS 22, EPDS 14). Case 3 was a 22-year-old primigravida at 35 weeks with panic-like symptoms and fear of childbirth (BAI 24, PASS 22, EPDS 14). All three were managed without psychotropic medication using CBT, family psychoeducation, and obstetric monitoring, with serial screening documenting improvement across every instrument within one to four weeks.

Conclusion. A spectrum of antenatal anxiety can be recognized at the primary-care level using serial validated screening; in these three women, CBT-based multidisciplinary care without psychotropic exposure was followed by rapid improvement. As an uncontrolled series these observations are hypothesis-generating, but they support integrating perinatal mental-health care into routine antenatal services.

1. Introduction

Pregnancy is conventionally portrayed as a period of anticipation and joy, yet for a substantial minority of women it is also a period of intense and sometimes disabling psychological distress. Anxiety, in particular, has emerged as one of the most prevalent—and most frequently under-recognized—mental-health complications of the perinatal period. A landmark systematic review and meta-analysis encompassing 102 studies and more than 221,000 women estimated that antenatal anxiety symptoms affect roughly 18–25% of pregnant women, that any anxiety disorder is present in approximately 15%, and that generalized anxiety disorder (GAD) specifically affects around 4%, with all estimates rising toward the third trimester and consistently higher in low- and middle-income

countries (LMICs).[1] Anxiety in pregnancy is, moreover, not a solitary phenomenon: it clusters within families and frequently co-occurs in partners, reinforcing the view that perinatal anxiety is a dyadic and family-level problem rather than an isolated maternal one.[2] A dedicated systematic review of anxiety disorders during pregnancy has further characterized their prevalence, clinical course, and—critically—the persistent gap between how often they occur and how seldom they are formally diagnosed and treated.[3] Determinant studies in perinatal populations consistently implicate weak social support, a family history of psychiatric illness, and chronic medical conditions as drivers of clinically significant antenatal GAD.[4]

The clinical importance of antenatal anxiety lies not merely in the subjective suffering it imposes but in its measurable biological consequences for both mother and fetus. Maternal psychological distress activates the hypothalamic–pituitary–adrenal (HPA) axis, releasing corticotropin-releasing hormone (CRH), adrenocorticotropic hormone (ACTH), and cortisol, together with catecholamines that produce systemic and utero-placental vasoconstriction. Sustained activation of this cascade has been mechanistically linked to adverse offspring neurodevelopment, with maternal prenatal stress shown to shape fetal brain development and the programming of stress-response systems.[5] Prospective human data demonstrate that elevated maternal prenatal cortisol programs the reactivity of the infant's own HPA axis,[6] and antenatal anxiety and depression are tightly coupled to perceived distress and altered cortisol dynamics during gestation.[7] At the level of observable child outcomes, meta-analytic evidence connects maternal prenatal stress and anxiety to poorer child cognitive performance.[8] Perhaps most consequential for clinical decision-making, an individual-participant-data meta-analysis of more than 400,000 women linked antenatal mood disorder to preterm birth and low Apgar scores and identified independent associations between antidepressant exposure and adverse pregnancy outcomes—an observation that lends weight to a non-pharmacological-first therapeutic philosophy whenever it is clinically feasible.[9]

Despite this substantial evidence base, antenatal anxiety remains systematically under-detected, particularly in primary care. Professional guidance now explicitly recommends routine screening for perinatal mood and anxiety disorders using validated instruments,[10] and diagnostic test-accuracy meta-analyses confirm that brief, well-validated screening tools perform acceptably in pregnant populations.[11] On the treatment side, cognitive behavioral therapy (CBT) has accumulated the strongest evidence of any intervention: a comprehensive meta-analysis of randomized controlled trials confirms that CBT reduces perinatal anxiety, depression, and stress, with effects that persist beyond the treatment window.[12] Importantly for the setting described here, psychological interventions delivered by non-specialist health workers have been shown to reduce common perinatal mental disorders in LMICs,[13] and situational analyses across multiple LMICs demonstrate the feasibility of integrating maternal mental-health care into existing primary-care platforms.[14] What remains comparatively scarce in the published literature is granular, real-world documentation of how a *spectrum* of antenatal anxiety presentations—differing by trimester, parity, and psychosocial trigger—can be recognized and successfully managed, entirely without psychotropic medication, within a single resource-limited primary-care facility.

The Indonesian context sharpens this gap. Pregnancy care in Indonesia is delivered predominantly through a dense network of community health centers (puskesmas) and village midwives, where the clinical encounter is heavily weighted toward physical and obstetric surveillance—blood pressure, fundal height, hemoglobin, ultrasonography—while the emotional life of the pregnant woman is rarely interrogated in any structured way. Local surveys have repeatedly found that a substantial proportion of Indonesian pregnant women report clinically meaningful anxiety, with figures approaching or exceeding a quarter of those screened in some provinces, and with younger maternal age, lower educational attainment, and economic strain emerging as consistent correlates. Yet perinatal mental-health screening is not embedded in

the standard antenatal package, and clinicians at the first level are seldom trained to recognize, quantify, or treat anxiety. The result is a predictable mismatch: a condition that is both common and treatable, encountered daily by the very clinicians least equipped by the system to address it. A practical demonstration that anxiety can be detected and reversed using tools and techniques already within reach of a puskesmas therefore carries direct relevance for the way antenatal care is organized across the country and in comparable settings.

This case series addresses that gap. We report three pregnant women managed consecutively at a Balinese community health center, deliberately spanning the first, second, and third trimesters, each with a distinct biopsychosocial driver of anxiety, and each managed with structured CBT, family psychoeducation, and obstetric monitoring while serial Beck Anxiety Inventory (BAI), Perinatal Anxiety Screening Scale (PASS), and Edinburgh Postnatal Depression Scale (EPDS) scores were tracked. The novelty of this report lies in documenting—across the full trimester spectrum and without recourse to psychotropic pharmacotherapy—a temporal association between primary-care-based, CBT-anchored, multidisciplinary management and rapid, measurable improvement in antenatal anxiety in a low-resource setting; as an uncontrolled case series it is intended to generate hypotheses rather than to establish efficacy. The aim of this study is to characterize the presentation, screening-based assessment, and longitudinal therapeutic response of antenatal anxiety across three trimesters, and to argue for the routine integration of perinatal mental-health screening and brief psychological intervention into first-level antenatal care.

2. Case Presentation

The three women described below were assessed and managed at UPTD Puskesmas Susut I, a community health center in Bangli Regency, Bali, Indonesia, between February and June 2025. The assessment approach was uniform across the three women and intentionally pragmatic, reflecting what is achievable within a routine antenatal visit. Each woman first underwent the standard obstetric evaluation—history, general and obstetric examination, ultrasonography, and basic laboratory testing—both to characterize the pregnancy and to exclude organic explanations for any somatic complaints. Anxiety was then quantified at baseline and at follow-up using three complementary instruments: the BAI, a 21-item self-report measure of somatic and cognitive anxiety severity (conventional severity bands: 0–7 minimal, 8–15 mild, 16–25 moderate, 26–63 severe); the PASS, a 31-item scale specifically developed and validated to detect the breadth of perinatal anxiety presentations (0–20 minimal/none, 21–41 mild–moderate, 42–93 severe);[15] and the EPDS, whose anxiety-sensitive items make it a practical dual screen for perinatal depression and anxiety, with a score of ≥13 conventionally denoting probable disorder.[16] Using three instruments rather than one allowed convergent confirmation and reduced the risk that an idiosyncratic response to any single questionnaire would mislead. For the purposes of this report, a *clinically meaningful improvement* was defined a priori as a fall of at least one severity band on the BAI together with a reduction of the EPDS below the screen-positive threshold of 13. Item 10 of the EPDS (thoughts of self-harm) was reviewed in every woman and was negative throughout; none expressed suicidal ideation, and a documented escalation pathway—referral to the district psychiatric service and consideration of pharmacotherapy—was in place had any deteriorated or screened positive for self-harm. The cognitive behavioral therapy was delivered by the attending primary-care physician within routine antenatal consultations; each woman received one to two structured sessions before her first follow-up assessment. Management decisions and follow-up intervals were individualised to each woman's gestational stage and dominant stressor. A consolidated overview of the three patients' demographic, obstetric, and psychosocial characteristics—together with their working formulations and management plans—is provided in Table 1.

Table 1. Demographic, obstetric, and psychosocial characteristics of the three patients.

Characteristic	Case 1	Case 2	Case 3
Age (years)	20	29	22
Gravidity/parity	G1P0000	G2P1001	G1P0000
Gestation at presentation	9 weeks (T1)	20 weeks (T2)	35 weeks (T3)
Education; occupation	Secondary; homemaker	Secondary; homemaker	Secondary; trader
Presenting complaint	Persistent worry, palpitations, insomnia	Anxiety with sudden sadness and guilt	Breathlessness and palpitations
Dominant psychosocial driver	Absent (seafaring) husband; unfiltered online health information	Prior low-birth-weight delivery requiring neonatal intensive care; in-law pressure for a male child	Fear of childbirth; caregiving burden for a sick father; husband's heavy smoking
Working formulation	Generalized anxiety presentation (sub-threshold GAD)	Generalized anxiety presentation + mild anemia	Fear of childbirth with panic and generalized-anxiety features
Management	Monthly CBT; sleep hygiene; vitamin B6	CBT (birth-trauma focus); family psychoeducation; nutrition counseling; iron + vitamin C	CBT (birth-confidence focus); husband psychoeducation incl. smoking cessation; iron + vitamin C
Psychotropic medication	None	None	None

2.1 Case 1 — First-trimester GAD in a young primigravida

A 20-year-old Hindu Balinese primigravida (G1P0000) presented to the maternal–child cluster of the health center at 9 weeks of gestation for her first antenatal visit. Her chief complaint was persistent, continuous anxiety that had begun the moment she learned she was pregnant. Over the preceding three weeks she had experienced restlessness without identifiable cause, palpitations, difficulty falling asleep, impaired concentration during household activities, and a recurrent, intrusive conviction that something terrible would befall her pregnancy and herself. The anxiety had been amplified by an earlier visit two weeks prior, at which a gestational sac had been visualised but no fetal cardiac activity had yet been detectable; in the interval she had resorted to repeated, unstructured online medical consultations that fed rather than relieved her fears. She reported nausea and vomiting but denied vaginal bleeding or lower abdominal pain. Her overriding fear was that the fetus "would not develop."

Her personal and family histories were unremarkable: no prior medical, surgical, psychiatric, allergic, or transfusion history, and no family history of psychiatric or chronic illness. The psychosocial context was central. She lived with her parents-in-law while her husband worked aboard a cruise ship and was therefore physically absent for prolonged periods, leaving her without her primary source of emotional support during a frightening early pregnancy.

On examination she appeared well (Glasgow Coma Scale [GCS] E4V5M6) but visibly tense, with a visual analogue distress score (VAS) of 4–5. Blood pressure was 110/70 mmHg, with a notably elevated pulse of 104 beats per minute, respiratory rate 20 per minute, temperature 36.7 °C, and body mass index derived from 146 cm and 59 kg. Cardiorespiratory and abdominal examinations were normal, conjunctivae were not pale, and extremities were warm and well-perfused. Obstetric examination found the fundus not yet palpable; fetal heart rate by hand-held Doppler was 172 beats per minute. Transabdominal ultrasonography performed at the center demonstrated a single live intrauterine pregnancy with a crown–rump length of 23.5 mm corresponding to 9 weeks 1 day, with clearly present fetal cardiac activity and an estimated date of delivery in October 2025. Laboratory testing showed hemoglobin 12 g/dL, negative urine protein, and non-reactive HBsAg, HIV, and syphilis serology. On structured psychiatric screening her scores were BAI 28 (severe range), PASS

25 (mild-to-moderate perinatal anxiety), and EPDS 14 (screen-positive, ≥13).

She was diagnosed with a single live intrauterine pregnancy at 9 weeks complicated by a clinically significant generalized anxiety presentation. Because her symptoms had been present for only three weeks—short of the six-month duration required for a formal DSM-5 diagnosis of generalized anxiety disorder (GAD)—the presentation was best characterized as an adjustment disorder with anxiety, or sub-threshold GAD, pending longitudinal observation; the pragmatic management implications were identical. Management was entirely non-pharmacological with respect to psychotropic agents: structured CBT scheduled monthly, formal sleep-hygiene counseling, and supportive supplementation with vitamin B6 (for concurrent nausea), with no anxiolytic or antidepressant prescribed. The therapeutic focus was on identifying and challenging the automatic negative thought "my pregnancy is not developing," and on curbing the maladaptive reassurance-seeking embodied in her compulsive online searching.

At review four weeks later (gestational age 13 weeks), she reported that the pervasive "causeless" anxiety had markedly receded. Episodic tension and mild palpitations persisted but were less intense; nocturnal sleep had lengthened from three to four hours to five to six hours; nausea and vomiting had abated; and she expressed growing confidence in her pregnancy. She specifically credited the first CBT session with helping her "catch" the negative automatic thought about fetal non-development. Her resting pulse had normalized to 86 beats per minute and her VAS had fallen to 0. Repeat screening showed improvement across all three instruments (BAI 28→15, PASS 25→20, EPDS 14→7). The working diagnosis was updated to a generalized anxiety presentation with clinical improvement.

2.2 Case 2 — Second-trimester GAD with prior birth trauma and anemia

A 29-year-old Hindu Balinese multigravida (G2P1001) presented at 20 weeks of gestation complaining of anxiety and sudden, unprovoked sadness over the preceding two weeks. She described becoming easily irritated and weeping without cause toward her husband and child, persistent guilt, and a heavy preoccupation: her first child had been born weighing only 2,100 g and had required referral to a tertiary hospital for neonatal intensive care. She additionally reported insomnia, fatigue, reduced appetite, and palpitations whenever she dwelt on the current pregnancy. She denied vaginal bleeding or uterine contractions.

Her obstetric history comprised one previous term spontaneous delivery three years earlier of a low-birth-weight female infant; she had used three-monthly injectable contraception, discontinued one year before this conception. Her medical history was notable for anemia. The psychosocial situation was again pivotal: she lived with parents-in-law who frequently commented on her diet and activity and who openly voiced a preference for a male grandchild, leaving her feeling burdened, scrutinised, and without autonomy.

On examination she was well, GCS E4V5M6, VAS 0, with blood pressure 110/70 mmHg, pulse 84 per minute, respiratory rate 20 per minute, and temperature 36.7 °C; height and weight were 160 cm and 61 kg. The single positive physical finding was pale conjunctivae, consistent with anemia; cardiorespiratory examination was otherwise normal. Obstetric examination showed a fundal height appropriate for gestational age with a fetal heart rate of 132 beats per minute. Ultrasonography demonstrated a single intrauterine fetus with biometry consistent with 20 weeks 3 days, a posteriorly located placenta, adequate amniotic fluid, and no structural abnormality, with an estimated date of delivery in September 2025. Laboratory evaluation confirmed mild anemia with hemoglobin 10.8 g/dL, negative urine protein, and non-reactive infectious serology. Psychiatric screening yielded BAI 24 (moderate range), PASS 22 (mild-to-moderate perinatal anxiety), and EPDS 14 (screen-positive, ≥13).

She was diagnosed with a single live intrauterine pregnancy at 20 weeks complicated by generalized anxiety disorder and mild anemia. Her multidisciplinary, psychotropic-free management plan comprised CBT specifically focused on processing the

trauma of her previous preterm low-birth-weight delivery; structured family psychoeducation directed at her husband and parents-in-law to reduce the corrosive interpersonal pressure; nutritional counseling to address her anemia; and pharmacological correction of anemia with iron supplementation plus vitamin C. No psychotropic medication was used.

At follow-up some six weeks later (approximately 27 weeks), she reported significant improvement. Her excessive worry about fetal weight had subsided; she was no longer prone to crying; her mood had stabilised; sleep quality and appetite had recovered; and she perceived more frequent fetal movement. She specifically attributed much of her improvement to a home visit and to the education provided to her husband and parents-in-law, after which the family finally understood and accommodated her psychological state. Examination showed pale conjunctivae had resolved, the fundus was three fingerbreadths above the umbilicus, and fetal heart rate was 144 beats per minute. Repeat ultrasonography showed biometry consistent with 24 weeks 2 days, posterior placenta, adequate fluid, and an estimated fetal weight of 650–700 g, with no structural abnormality; hemoglobin had risen marginally from 10.8 to 11.0 g/dL—a modest increment over six weeks that left her at the World Health Organization threshold for anemia in pregnancy (Hb 11.0 g/dL) and prompted continued supplementation and consideration of red-cell indices to exclude thalassaemia trait. Repeat screening showed improvement across all three instruments (BAI 24→14, PASS 22→15, EPDS 14→8). The working diagnosis was updated to a generalized anxiety presentation with clinical improvement, alongside persisting mild anemia under treatment.

2.3 Case 3 — Third-trimester anxiety with panic features and fear of childbirth

A 22-year-old Hindu Balinese primigravida (G1P0000), a trader by occupation, presented at 35 weeks of gestation with breathlessness and frequent palpitations. She reported that the dyspnoea and palpitations had begun about a month earlier, coinciding with intensifying fears: that she would be unable to care for her pregnancy, that she might miscarry, that she might not deliver a son and would consequently face rejection by her family, and that the pregnancy would not proceed smoothly because her husband was an active heavy smoker and because she herself frequently undertook long journeys to care for her sick, isolated father. She voiced a fear that a vaginal delivery would go wrong because she would be "uncooperative," and on that basis expressed a preference for cesarean delivery; she also wished she could delay pregnancy altogether to focus on her ailing father. She denied abdominal pain or vaginal bleeding.

Her medical history was unremarkable. The psychosocial picture was once more decisive: she was one of several sisters, none of whom lived with their unwell father, leaving her with a disproportionate caregiving burden, while her husband's heavy smoking compounded her health-related fears for the fetus. On examination she was well, GCS E4V5M6, VAS 0, with blood pressure 112/70 mmHg, an elevated pulse of 104 per minute, respiratory rate 20 per minute, and temperature 36.7 °C; height and weight were 160 cm and 82.7 kg. Cardiorespiratory and abdominal examinations were unremarkable, conjunctivae were not pale, and extremities were warm. Obstetric examination found a fundal height two fingerbreadths below the xiphisternum with a fetal heart rate of 143 beats per minute. Ultrasonography demonstrated a single intrauterine fetus with biometry consistent with 35 weeks 6 days, a fundal placenta, adequate amniotic fluid, an estimated fetal weight of 2,470 g, and an estimated date of delivery in June 2025. Hemoglobin was 12.6 g/dL and a resting electrocardiogram showed normal sinus rhythm. Breathlessness and palpitations in the third trimester carry a differential that includes anemia, thyroid dysfunction, arrhythmia, peripartum cardiomyopathy, and pulmonary embolism; the normal hemoglobin, normal electrocardiogram, normal blood pressure, and unremarkable cardiorespiratory examination, set against an otherwise reassuring clinical picture and the clear temporal and content link of her symptoms to specific fears, made an anxiety-driven etiology by far the most probable. It is acknowledged that a single

resting electrocardiogram does not formally exclude pulmonary embolism or early peripartum cardiomyopathy; in this primary-care setting, further cardiac or thrombotic investigation was judged unwarranted given the absence of any corroborating sign, but the threshold for escalation would have been low had symptoms persisted or new signs emerged. Psychiatric screening yielded BAI 24 (moderate range), PASS 22 (mild-to-moderate perinatal anxiety), and EPDS 14 (screen-positive, ≥13), consistent with moderate anxiety carrying prominent panic-like somatic features and accompanying depressive risk.

She was diagnosed with a single live intrauterine pregnancy at 35 weeks complicated by a mixed anxiety presentation. The dominant features—a circumscribed fear of childbirth with a consequent preference for cesarean delivery (consistent with tokophobia) superimposed on episodic panic-like somatic arousal and generalized worry—did not map cleanly onto a single DSM-5/ICD-11 category; we therefore describe it descriptively as fear of childbirth with panic and generalized-anxiety features rather than forcing a categorical label. Her management, again without psychotropic medication, centered on CBT directed at rebuilding her confidence in the safety of vaginal delivery and at correcting catastrophic appraisals of her pregnancy; family psychoeducation targeted specifically at her husband, including smoking-cessation counseling; and iron and vitamin C supplementation. The normal electrocardiogram was used therapeutically to provide concrete reassurance that her cardiopulmonary symptoms were benign rather than a sign of heart disease. Her expressed preference for cesarean delivery was explored rather than reflexively accommodated, on the understanding that a request rooted in fear, once that fear is addressed, frequently softens; by follow-up she had indeed regained confidence in the prospect of vaginal birth.

At follow-up (early June, approximately 37 weeks) she reported that the breathlessness and palpitations had completely resolved after the explanatory and reassurance-focused session two weeks earlier. She noted that her husband had stopped smoking inside the home and that she now believed she could deliver vaginally. Examination was reassuring, with a fundal height two fingerbreadths below the xiphisternum and a fetal heart rate of 139 beats per minute. Repeat screening showed improvement across all three instruments (BAI 24→16, PASS 22→18, EPDS 14→8). The working formulation at follow-up remained fear of childbirth with panic and generalized-anxiety features, now clinically improved.

Taken together, the visit-by-visit obstetric course of all three women—gestational age by dates and by ultrasonography, resting maternal pulse, fetal heart rate, estimated fetal weight, and hemoglobin—is detailed in Table 2, which documents normal fetal heart rates and reassuring biometry throughout and, notably, the normalization of the resting maternal tachycardia seen at baseline in Cases 1 and 3.

Table 2. Visit-by-visit obstetric and clinical course of the three patients.

Case / visit	GA by dates	GA by USG	Pulse (bpm)	FHR (bpm)	EFW / CRL	Hb (g/dL)
Case 1 – baseline	9 wk	9w1d	**104**	172	CRL 23.5 mm	12.0
Case 1 – follow-up (+4 wk)	13 wk	—	86	162	—	—
Case 2 – baseline	20 wk	20w3d	84	132	—	10.8
Case 2 – follow-up (+6 wk)	~27 wk	24w2d§	86	144	EFW 650–700 g	11.0
Case 3 – baseline	35 wk	35w6d	**104**	143	EFW 2470 g	12.6
Case 3 – follow-up (+2 wk)	~37 wk	—	86	139	—	—

Notes: GA, gestational age; USG, ultrasonography; FHR, fetal heart rate; EFW, estimated fetal weight; CRL, crown–rump length; Hb, hemoglobin. Red values denote resting maternal tachycardia (pulse >100 bpm) at baseline, which normalized at follow-up. §In Case 2, ultrasound biometry (24w2d) lagged behind gestational age by dates (~27 weeks) at follow-up; serial fetal-growth surveillance was advised given the prior low-birth-weight history.

3. Discussion

3.1 A spectrum, not a single phenotype

Considered together, these three women illustrate that antenatal anxiety is best understood as a clinical spectrum rather than a uniform diagnosis. They differ in trimester (9, 20, and 35 weeks), in parity (two primigravidae and one multigravida), in the dominant symptom cluster (pervasive cognitive worry, depressive-tinged guilt, and panic-like somatic arousal, respectively), and—most instructively—in the psychosocial trigger that precipitated decompensation. Yet all three satisfied the core construct of generalized anxiety: excessive, difficult-to-control worry accompanied by restlessness, fatigue, impaired concentration, irritability, muscle tension, or sleep disturbance, producing meaningful functional impairment. The prevalence data that open this report—antenatal anxiety symptoms in roughly a fifth of pregnancies and frank disorders in around 15%, rising in LMICs—imply that for every woman like these three who is identified, several others pass through antenatal services undetected.[1,3] The fact that all three women in this series were captured only because structured psychiatric screening was deliberately incorporated into routine antenatal visits is itself the central practical lesson. It is also worth noting what these women had in common beneath their surface differences: all were young (20–29 years), all had completed only secondary education, all were of comparable socioeconomic standing, and all were embedded in extended-family households—precisely the demographic profile that determinant studies of perinatal GAD repeatedly flag as higher-risk.[4] This convergence suggests that, rather than waiting for symptomatic women to volunteer their distress, antenatal services could productively concentrate screening effort on demographically vulnerable groups while still screening universally, since the cost of a brief questionnaire is trivial relative to the consequences of a missed diagnosis.

3.2 The decisive role of screening in primary care

None of these diagnoses would have been made reliably on the basis of obstetric assessment alone. In each case the physical and ultrasonographic findings were essentially normal, and in Case 3 the presenting complaint—breathlessness and palpitations—superficially suggested a cardiorespiratory rather than psychiatric problem, a misattribution averted only by a normal electrocardiogram combined with elevated anxiety scores. This is precisely the scenario that validated screening is designed to resolve. The PASS was developed specifically because generic instruments under-detect the breadth of perinatal anxiety, and its validation work demonstrated superior sensitivity to the anxiety subscale of older tools;[15] its cross-cultural validation, including in non-Western antenatal populations, supports its applicability outside its setting of origin.[17] The EPDS, although designed for depression, carries anxiety-sensitive items that make it a pragmatic dual screen, and its anxiety subscale has been separately validated.[16] Diagnostic test-accuracy meta-analyses confirm that such brief instruments perform acceptably in pregnancy,[11] and professional guidance now explicitly endorses routine perinatal screening.[10] The convergence of three instruments in each of our cases—rather than reliance on any single score—provided robust, triangulated confirmation of clinically significant anxiety and, equally importantly, an objective yardstick against which to measure treatment response. This response is illustrated in Figure 1, which plots the trajectory of all three instruments from baseline to follow-up for each woman. As shown in Figure 1A, Case 1's scores fell from a baseline BAI of 28, PASS of 25, and EPDS of 14 to 15, 20, and 7 respectively over four weeks; Figure 1B shows Case 2 declining from BAI 24, PASS 22, and EPDS 14 to 14, 15, and 8 over six weeks; and Figure 1C shows Case 3 falling from BAI 24, PASS 22, and EPDS 14 to 16, 18, and 8 over just two weeks. The parallel decline of all three instruments across all three patients within one to four weeks is consistent with—though, in an uncontrolled series, cannot prove—a treatment-related improvement rather than mere spontaneous fluctuation; the temporal coupling of symptom relief to specific therapeutic events (a confirmed viable scan, a normal electrocardiogram, a

family meeting) strengthens but does not establish that inference.

3.3 Differential diagnosis and the therapeutic value of a normal workup

A recurring methodological point illustrated by this series is that the diagnosis of antenatal anxiety is, in practice, partly one of exclusion, and that the obstetric and laboratory workup performs double duty—ruling out organic mimics while simultaneously furnishing the patient with concrete reassurance that becomes part of the treatment.

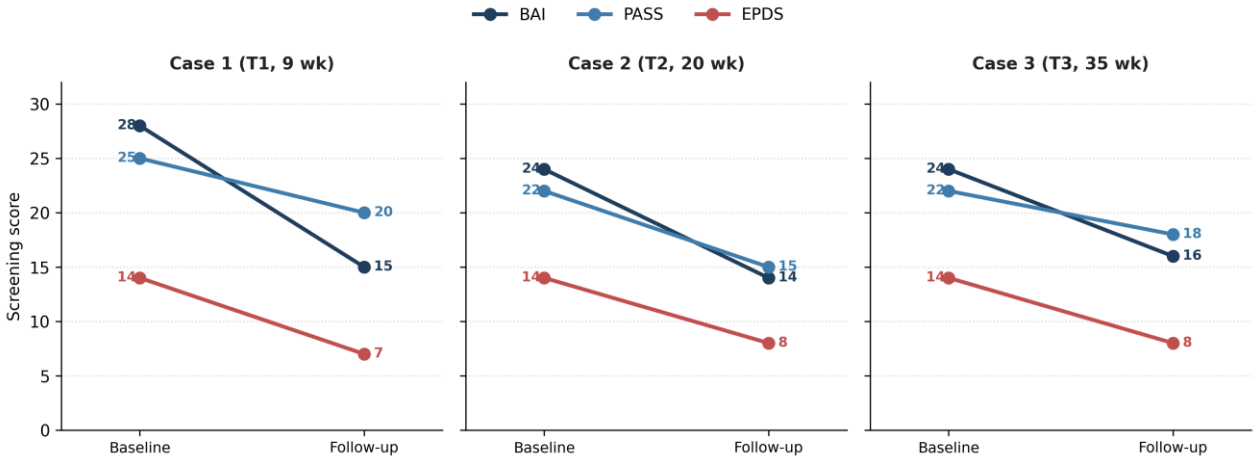

Figure 1. Trajectories of the three screening instruments from baseline to follow-up for Case 1 (A, first trimester), Case 2 (B, second trimester), and Case 3 (C, third trimester). All instruments declined in every patient. BAI, Beck Anxiety Inventory; PASS, Perinatal Anxiety Screening Scale; EPDS, Edinburgh Postnatal Depression Scale.

Case 3 is the clearest example: breathlessness and palpitations in late pregnancy legitimately raise the spectre of anemia, thyroid dysfunction, arrhythmia, peripartum cardiomyopathy, or pulmonary pathology, none of which can be dismissed on clinical impression alone. A normal electrocardiogram, a hemoglobin of 12.6 g/dL, and an unremarkable cardiorespiratory examination collectively excluded the most dangerous alternatives and, when shared explicitly with the patient, directly attenuated the catastrophic appraisal driving her symptoms. Case 1's tachycardia similarly demanded that thyrotoxicosis and hypovolaemia be considered before being attributed to sympathetic arousal, and Case 2's fatigue and low mood required that her documented anemia be corrected and weighed as a contributor before the residual symptoms were ascribed to a primary anxiety process. In each instance the workup was not a perfunctory prelude to a psychiatric label but an integral component of both safe diagnosis and effective therapy. This reframing is important for primary-care clinicians, who sometimes hesitate to make a "psychological" diagnosis for fear of missing organic disease; the lesson here is that a disciplined, anxiety-aware workup accomplishes both aims at once.

3.4 Pathophysiology and why antenatal anxiety must not be dismissed

The temptation in a busy primary-care setting is to regard a pregnant woman's anxiety as an understandable, self-limiting reaction unworthy of formal intervention. The mechanistic literature argues strongly against such complacency. Maternal anxiety activates the HPA axis, and the resulting surge in CRH, ACTH, cortisol, and catecholamines produces utero-placental vasoconstriction that can compromise fetal oxygen delivery while predisposing to preterm uterine activity.[5] Elevated maternal cortisol does not merely transiently perturb the fetal environment; prospective human data show it programs the reactivity of the infant's own HPA axis, a plausible biological route by which antenatal anxiety casts a long developmental shadow.[6,7] Downstream, maternal prenatal stress and anxiety have been meta-analytically linked to poorer child cognitive outcomes,[8]

and, at the level of immediate obstetric endpoints, antenatal mood disorder is associated with preterm birth and depressed Apgar scores.[9] Tachycardia at rest in Cases 1 and 3 (pulse 104 despite normal blood pressure, temperature, and hemoglobin) offered a bedside correlate of this sympathetic over-activation, and its normalization at follow-up paralleled the fall in anxiety scores. Recognizing and treating antenatal anxiety is therefore not a discretionary act of kindness but a legitimate component of fetal and obstetric risk reduction.

3.5 Cognitive behavioral therapy as first-line, non-pharmacological treatment

The therapeutic spine of all three cases was CBT, and the rapid, measurable improvement observed is consistent with the strongest tier of perinatal evidence. A comprehensive meta-analysis of randomized controlled trials confirms that CBT reduces perinatal anxiety, depression, and stress, with effects that endure beyond the active treatment phase,[12] and randomized data—including internet-delivered formats—show meaningful reductions in antenatal anxiety symptoms.[18] CBT works by making maladaptive automatic thoughts explicit and testable: in Case 1 the catastrophic belief that "the pregnancy is not developing" was directly challenged and behaviorally counterweighted by curtailing compulsive online reassurance-seeking; in Case 3 the conviction that vaginal delivery would inevitably fail was restructured and supplemented with concrete physiological reassurance from a normal electrocardiogram. The broader non-pharmacological landscape—Cochrane-reviewed mind–body interventions and meta-analyzed mindfulness-based programs—situates CBT as the best-evidenced member of a family of safe psychological treatments.[19-21] Patient-experience research on internet-delivered CBT for fear of birth additionally reminds clinicians that acceptability and the therapeutic relationship matter to engagement, and that many women still value face-to-face contact.[22]

It is worth being concrete about what the CBT actually consisted of, because its very simplicity is part of the argument. The sessions did not require specialised psychiatric infrastructure. They combined psychoeducation about the nature of anxiety and its physiological manifestations (so that palpitations and breathlessness could be reattributed from "danger" to "arousal"); identification of automatic negative thoughts and the cognitive distortions sustaining them (catastrophising in all three, and selective attention to threat in Cases 1 and 3); collaborative testing of those thoughts against evidence (the confirmed viable scan in Case 1, the normal electrocardiogram in Case 3); behavioral strategies including stimulus control for the compulsive online searching in Case 1 and sleep-hygiene instruction across all three; and simple relaxation and breathing techniques to interrupt the somatic anxiety cycle. These are competencies that a motivated general practitioner or trained midwife can acquire and deliver within the constraints of a routine antenatal visit, especially when supported by the structured scaffolding that screening scores provide. The observed speed of response—meaningful improvement after a single session in Cases 1 and 3—should not be over-interpreted from three patients, but it is consistent with the responsiveness of situationally driven anxiety to targeted cognitive correction once the precipitating uncertainty is resolved.

The decision to withhold psychotropic medication in all three cases deserves explicit justification rather than being treated as a default. An umbrella review of psychotropic safety in pregnancy found no convincing or highly suggestive evidence of major harm but did identify suggestive signals for selective serotonin reuptake inhibitors—including associations with preterm birth, small-for-gestational-age infants, and cardiac malformations—underscoring that pharmacotherapy carries a genuine, if modest, risk calculus.[23] This is reinforced by the individual-participant-data meta-analysis showing independent associations between antidepressant exposure and adverse outcomes.[9] Where anxiety is mild to moderate and responds to psychological intervention—as it did, briskly, in each of these women—a non-pharmacological-first strategy aligns both the evidence and the precautionary instincts of patients understandably wary of medicating a pregnancy. None

of this implies that pharmacotherapy is never indicated; severe, refractory, or suicidal presentations may demand it. The point is that the three women described here demonstrate how far brief, structured psychological care can go before medication need even be contemplated.

3.6 Psychosocial drivers and the necessity of family psychoeducation

A striking and clinically actionable feature of this series is that each woman's anxiety was anchored in an identifiable, evidence-recognized psychosocial vulnerability, and that addressing the social context was as therapeutic as the individual psychological work. Systematic review evidence identifies weak partner and social support, abuse, and previous pregnancy loss or complications as principal antecedents of antenatal anxiety,[24] and meta-analysis quantifies the effect: low social support nearly doubles the odds of antenatal mental-health problems.[25] Case 1 maps directly onto this literature—an absent, seafaring husband stripped a frightened young primigravida of her primary support precisely when unfiltered online information was inflaming her fears, consistent with cohort evidence that low antenatal partner support predicts pregnancy-related anxiety and depression.[26] Case 2 exemplifies the well-documented role of prior obstetric trauma: a previous low-birth-weight delivery requiring neonatal intensive care left a residue of guilt and dread that resurfaced in the subsequent pregnancy, in keeping with research linking perceived birth trauma to anxiety in later pregnancies,[27] and was further aggravated by in-law pressure surrounding infant sex. Case 3 illustrates fear of childbirth (tokophobia) with its characteristic preference for cesarean delivery, a recognized entity with defined prevalence and risk factors,[28] and a systematic review confirms that stress, anxiety, low social support, and prior negative experiences drive such fear.[29]

The cultural texture of these triggers deserves explicit acknowledgment, because it shapes both presentation and treatment. In the Balinese extended-family household, a young pregnant woman typically resides with her husband's parents, and the expectations of that household—about diet, activity, conduct, and, pointedly, the sex of the expected child—carry considerable weight. In Cases 2 and 3 the longing of relatives for a male grandchild was not incidental color but an active stressor, intensifying guilt and fear of rejection in ways that a purely individual model of anxiety would miss. Effective care therefore had to operate at the level of the household, not merely the individual; the clinician's task included translating the patient's inner experience into terms her family could understand and act upon. This is a reminder that perinatal mental-health interventions cannot be transplanted wholesale across cultures without attention to the specific relational structures that generate distress, even as the underlying clinical principles remain constant. In every case, therefore, family psychoeducation was not an optional adjunct but a core therapeutic ingredient. The improvement in Case 2 was attributed by the patient herself principally to the education delivered to her husband and parents-in-law, and in Case 3 to her husband ceasing to smoke at home—behavioral changes in the family system that individual therapy alone could not have produced. This experience accords with the conceptual shift, evident throughout the perinatal literature, toward treating maternal anxiety as a property of a relational system rather than of an individual in isolation.[2]

3.7 Implications for primary-care and low-resource antenatal services

Perhaps the most generalizable lesson of this series is where it took place. All three women were identified and treated not in a tertiary psychiatric clinic but in a community health center, by primary-care clinicians, using brief screening instruments and structured but non-specialist-deliverable psychological techniques. This is consonant with robust evidence that psychological interventions delivered by non-specialists reduce common perinatal mental disorders in LMICs,[13] and with situational analyses demonstrating the feasibility—and the system-level prerequisites—of embedding maternal mental-health care within primary-care platforms across diverse LMIC settings.[14] Given that the majority of pregnant

women in such settings will only ever encounter a first-level facility, the capacity to screen for and treat antenatal anxiety at that level is not a luxury but a determinant of population-level perinatal mental health. The modest resource footprint of the approach used here—three brief questionnaires, a clinician trained in basic CBT techniques, a willingness to bring partners and relatives into the conversation, and routine obstetric monitoring—places it within reach of comparable facilities.

3.8 Comparative synthesis: a gradient of psychosocial load across the trimesters

Reading the three cases side by side reveals an instructive pattern that no single case could show. The dominant anxiety phenotype tracked with both gestational stage and the nature of the precipitating stressor. In the first trimester, Case 1's anxiety was anticipatory and uncertainty-driven, fixated on viability at a moment when the pregnancy itself was still being biologically confirmed; the unresolved ambiguity of an earlier scan without detectable cardiac activity was the spark, and reassurance plus cognitive restructuring extinguished it quickly once the pregnancy was confirmed viable. In the second trimester, Case 2's anxiety was retrospective and grief-laden, drawing its energy from a concrete past trauma—a previous low-birth-weight infant requiring intensive care—amplified by ongoing interpersonal pressure; here the therapeutic center of gravity necessarily shifted toward processing the prior loss and recalibrating the family environment. In the third trimester, Case 3's anxiety was prospective and performance-oriented, organized around the imminent ordeal of labor and the fear of failing at it, and it expressed itself in the most somatic, panic-like form of the three. The same core CBT framework flexed to meet each: reassurance and thought-catching for anticipatory worry, trauma processing and systemic intervention for grief-driven anxiety, and graded cognitive reframing plus physiological reassurance for performance anxiety. That a single, low-intensity, primary-care-deliverable approach accommodated this breadth is itself an argument for its generalizability. It also cautions against a one-size-fits-all script: effective management depended on correctly reading which psychosocial driver was operative, which in turn depended on having screened and listened in the first place.

3.9 Limitations

Several limitations temper these conclusions. This is an uncontrolled case series of three patients, so improvement cannot be causally attributed to the intervention with the confidence a controlled design would afford, and regression to the mean—the statistical tendency for extreme baseline scores to drift toward average on retesting—cannot be excluded, although the consistency and speed of improvement across three independent instruments in three different women argues against chance alone. The screening questionnaires were administered by the treating clinician rather than an independent rater, introducing potential expectancy and social-desirability bias, and the three instruments are not fully independent, since they share overlapping symptom content; convergent change across them is therefore mutually reinforcing but not statistically independent confirmation. Follow-up was short (one to six weeks), so the durability of benefit and, critically, the postnatal trajectory—when antenatal anxiety frequently evolves into postpartum depression—remain undocumented here; the broader literature's evidence for sustained CBT benefit offers reassurance but cannot substitute for case-specific data. The screening instruments, while validated, are not diagnostic substitutes for a full structured psychiatric interview, and formal structured diagnostic interviews were not performed. Finally, the cultural specificity of the psychosocial drivers—Balinese extended-family living arrangements and son-preference dynamics—means the precise triggers may not generalize, even though the underlying principle, that antenatal anxiety is biopsychosocially determined and screening-detectable, does.

3.10 Future directions

The questions this series raises are precisely those a controlled study should answer. Whether the rapid improvements documented here are sustained through delivery and into the vulnerable postpartum

window—when anxiety frequently transmutes into postpartum depression—cannot be inferred from short follow-up and warrants prospective study with postnatal endpoints. The feasibility of training midwives and general practitioners to deliver brief, protocolised CBT within the existing antenatal schedule, and the minimum "dose" of therapy required for benefit, are operational research questions of direct policy relevance for low-resource health systems. So too is the optimal screening cadence: our experience suggests that a single baseline screen risks missing women who decompensate later in pregnancy, favoring repeated screening at each trimester rather than a one-time assessment. Finally, the family-systemic component that proved so pivotal in Cases 2 and 3 deserves formal evaluation, since the magnitude of benefit attributable to partner and in-law psychoeducation—as distinct from the individual therapy—remains, on the present evidence, a matter of clinical impression rather than measurement. Addressing these questions would convert the proof-of-principle offered here into the kind of implementable evidence that changes antenatal care at scale.

4. Conclusion

This case series illustrates that a clinically meaningful spectrum of antenatal anxiety—generalized worry in the first trimester, depression-tinged anxiety rooted in prior birth trauma in the second, and panic-laden fear of childbirth in the third—can be recognized through deliberate, serial, validated screening and managed with CBT-based, multidisciplinary, family-inclusive care entirely within a primary-care setting and entirely without psychotropic medication. In all three women, parallel reductions in BAI, PASS, and EPDS scores within one to four weeks accompanied clear clinical improvement, although an uncontrolled series of three patients cannot establish that the intervention caused that improvement. The findings argue that perinatal mental-health screening using brief validated tools, coupled with access to brief structured psychological intervention and family psychoeducation, should be a routine rather than exceptional component of antenatal care, particularly in the first-level facilities where most pregnant women in low-resource settings are seen.

Beyond the individual outcomes, the series carries a system-level message. The diagnostic and therapeutic resources it required were modest in the extreme: three short questionnaires that a trained midwife can administer, a clinician versed in the basic logic of cognitive restructuring, the willingness to invite a partner or relative into the consultation, and the obstetric monitoring that antenatal care already provides. None of this lies beyond the reach of a typical community health center. What is usually missing is not money or equipment but a framework that treats the pregnant woman's emotional state as a vital sign worth measuring and a problem worth treating. The three women in this report were not exceptional; they were, in all likelihood, representative of many who pass through the same doors unscreened. Their rapid recovery once anxiety was named, quantified, and addressed is the clearest possible argument that the principal barrier to better perinatal mental health in such settings is one of recognition, not of capability. Strengthening the perinatal mental-health competencies of primary-care clinicians is, on this evidence, among the most efficient available investments in the joint wellbeing of mothers and their children.

Declarations

Reporting guideline. This case series was prepared in accordance with the CARE (CAse REport) guidelines, and a completed CARE checklist accompanies the submission.

Ethics approval and consent to participate. Each patient provided written informed consent for the use of her de-identified clinical information for educational and scientific publication. All directly identifying details—including names, medical-record numbers, exact dates, and the name of the referral hospital—have been removed or coarsened, and gestational ages and estimated dates of delivery are reported at a resolution sufficient for clinical sense while protecting privacy, in accordance with the principles of the Declaration of Helsinki. As a retrospective report of

routine de-identified clinical care, the work was reviewed by the health-center leadership and deemed exempt from formal institutional review-board approval; patient consent for publication was nonetheless obtained in every case.

Consent for publication. Written informed consent for publication of de-identified clinical details was obtained from each patient.

Availability of data. The de-identified data supporting this report are available from the corresponding author on reasonable request.

Conflict of interest. The authors declare that they have no competing interests.

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