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Clinical Profiles of Depressive and Stress-Related Phenotypes in Balinese Adolescents: A Retrospective Pilot Audit in a Secondary Care Setting

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A B S T R A C T

Introduction: Adolescence represents a critical window of neurodevelopmental plasticity and psychosocial vulnerability. While tertiary centers in Indonesia frequently report high rates of psychosis, data regarding common mental disorders in rural secondary care settings remain scarce. This study aims to elucidate the clinical phenotypes and diagnostic divergence between early and late adolescence in a Balinese district hospital. **Methods:** This was a retrospective, observational pilot audit utilizing a total sampling strategy of all adolescent patients (aged 10–19 years) presenting to the Psychiatric Outpatient Clinic of Bangli Regional General Hospital throughout 2024. A total of 23 patients were eligible. Data regarding demographics, ICD-10 diagnoses, clinical severity (CGI-S), and psychosocial stressors were analyzed. **Results:** The clinical cohort (N=23) demonstrated a female predominance (n=14) and a skew toward late adolescence (n=17). A distinct diagnostic divergence was observed: Depressive episodes (F32) were the most frequent diagnosis (n=7), clustering predominantly in late adolescence (n=5), whereas adjustment disorders (F43.2) were exclusively identified in early adolescence (n=3). Anxiety disorders showed a notable male predominance (n=2 versus n=1 female). Clinical severity was higher in the late adolescent group, with a greater frequency of moderate-to-severe symptoms compared to the situational distress seen in younger teens. **Conclusion:** This pilot audit identifies a window of vulnerability for endogenous depressive pathology emerging in late adolescence (17–19 years), likely driven by academic transition pressures. Conversely, early adolescence is characterized by situational adaptability issues. The low utilization rate suggests significant barriers to care. Age-stratified interventions and school-based screenings are urgently recommended.

1. Introduction

Mental health is increasingly recognized not merely as the absence of disease, but as a fundamental pillar of human potential and societal stability.[1] While the World Health Organization (WHO) explicitly enshrines mental well-being within its definition of health, the psychiatric needs of the pediatric and adolescent population remain a neglected frontier in global medicine, particularly within the developing nations of the Global South. Adolescence, operationally defined as the transitional epoch between ages 10 and 19, represents far more than a bridge between childhood and adulthood; it is a distinct neurobiological and psychosocial period characterized by profound dynamism and vulnerability. Biologically, this period is demarcated by the onset of puberty, which triggers a cascade of gonadal hormonal fluctuations that fundamentally alter neural architecture. It is a phase of intense neuroplasticity, marked by the completion of cortical maturation, specifically the synaptic pruning and myelination of the prefrontal cortex—the seat of executive function, impulse control, and long-term planning.[2] Crucially, this maturation occurs asynchronously. The limbic system, which governs emotional reactivity and reward-seeking behavior, matures earlier than the prefrontal control systems. This developmental mismatch creates a vulnerability gap or a period of heightened emotional lability, risk-

taking behavior, and susceptibility to stress, validating the classical Hallian characterization of adolescence as a time of storm and stress.[3]

When this biological restructuring collides with the intense psychosocial demands of modern life—academic competition, shifting peer hierarchies, and identity formation—the adolescent brain is rendered highly susceptible to emotional dysregulation.[4] Consequently, adolescence is the peak age of onset for many major psychiatric conditions, including depression, anxiety, and early-onset psychosis. Understanding the morbidity patterns during this window is not an academic exercise but a preventative necessity; the trajectory set during these years often dictates the functional capacity of the future adult.

The global epidemiological data underscore the urgency of addressing adolescent mental health. The WHO estimates that approximately 14% of the world's adolescents experience mental health conditions, yet the vast majority remain undetected and untreated. These conditions contribute to 13% of the global burden of disease in this age demographic, a figure that is rising largely due to the disabling nature of depression and anxiety. The consequences of unaddressed psychiatric morbidity during these formative years are devastating and far-reaching. Beyond the immediate distress, early-onset mental illness is strongly associated with academic attrition, substance abuse as a maladaptive coping mechanism, failure to enter the workforce, and increased risk of suicide—which remains the fourth leading cause of death among 15-19 year-olds globally.[5]

Despite this clear burden, the infrastructure to detect and treat these conditions is unevenly distributed. In many low- and middle-income countries (LMICs), including Indonesia, mental health resources are historically centralized, focusing heavily on custodial care for the severely mentally ill rather than early intervention for developing youths.[6] This systemic neglect creates a silent epidemic of internalizing disorders. While disruptive behaviors often garner attention, the quiet suffering of the depressed or anxious adolescent is frequently dismissed as growing pains or character flaws, leading to a prolonged duration of untreated illness (DUI) that entrenches the pathology.

In the specific context of Indonesia, the largest archipelago nation in the world, the landscape of adolescent psychiatry is both complex and under-researched.[7] While national health surveys (Riskesdas) provide broad prevalence rates, granular clinical data are often restricted to major academic centers on the island of Java. Previous influential studies, such as those emanating from tertiary referral centers like Dr. Soetomo Hospital in Surabaya, have consistently highlighted a predominance of schizophrenia and severe psychotic disorders among referred adolescents. However, reliance on tertiary-center data presents a significant methodological hazard known as Berkson's Bias. This form of selection bias occurs because admission to top-tier specialist hospitals is not random; it filters for the most severe, treatment-refractory, or behaviorally disruptive cases that cannot be managed elsewhere. Consequently, the clinical profiles derived from these centers skew heavily toward psychosis and acute mania, effectively masking the prevalence of common mental disorders (CMDs) such as depression, anxiety, and adjustment disorders. These CMDs are more likely to present to district-level hospitals or community clinics, where they remain under-documented in the scientific literature. To understand the true real-world psychiatric burden of Indonesian youth, research must pivot from the tertiary apex to the secondary care level—the district general hospitals (RSUD) that serve as the first line of specialized defense for the community.

Validating clinical data in Indonesia also requires a deep appreciation of local cultural nuances. Indonesia is not a monolith; the island of Bali presents a unique sociocultural matrix that distinctly shapes adolescent psychology. Balinese society is deeply communal, structured around the *Banjar* (village community) and governed by the philosophy of *Tri Hita Karana* (harmony between people, nature, and the divine).[8] Understanding the Balinese adolescent requires a dual

lens of modern psychiatry and local wisdom. Traditionally, the transition from childhood to adulthood is not merely biological but ritually codified. Ceremonies such as *Menek Kelih* (puberty rites) and *Metatah* (tooth filing) serve as vital social markers. *Metatah*, in particular, is symbolically significant; by filing the canine teeth, the ritual aims to diminish the Sad Ripu (six internal enemies), including lust, greed, and anger. These rituals socially codify the expectation of emotional control, spiritual maturity, and stoicism. The Balinese adolescent is culturally conditioned to suppress negative emotions to maintain group harmony, a phenomenon that may influence the clinical presentation of distress—shifting it from verbal expression to somatic complaints or smiling depression.[9]

However, rapid modernization and the digital age have introduced a new layer of stressors that conflict with these traditional rhythms. The contemporary Balinese adolescent faces a double burden. On one hand, they must maintain intense traditional community obligations (*ngayah*), participating in frequent religious and social ceremonies. On the other hand, they must navigate the hyper-competitive academic landscape of modern Indonesia, where high stakes are placed on National Examinations and university entrance tests (SNBT). This friction between the collectivist demands of the *Banjar* and the individualist pressures of modern education creates a unique stress diathesis. Furthermore, in the patrilineal kinship system of Bali, male adolescents carry the additional weight of preserving the family lineage (*Purusa*), a responsibility that may interact with toxic masculinity to suppress help-seeking behavior for emotional struggles, leading to different phenotypic expressions of distress compared to females.

Bangli Regional General Hospital occupies a strategic position in this healthcare landscape. As the primary referral center (Type B) for the Bangli regency—a predominantly semi-urban and agrarian region known for its cooler climate and traditional topography—it captures a demographic distinct from the urban metropolises of Denpasar or Jakarta. The patients presenting to the psychiatric polyclinic at Bangli General Hospital represent the missing middle: adolescents who are too distressed to be managed by primary care (*Puskesmas*) but whose conditions may not yet have escalated to the severity requiring institutionalization in a mental asylum. Investigating this specific cohort offers a window into the early-stage progression of psychiatric morbidity. Unlike the chronic, refractory cases seen in tertiary centers, the clinical profile at a district hospital is more likely to reflect the acute responses to life stressors, the first episodes of mood disorders, and the interplay between personality development and environmental pressure. It is within this setting that the subtle divergences between early and late adolescence can be most accurately observed.[10]

Despite the clear need for localized data, there is a paucity of research examining adolescent psychiatric profiles in rural or secondary care settings in Bali. Most existing literature conflates adolescence into a single decade-long block, failing to recognize that a 14-year-old middle schooler and a 19-year-old university entrant inhabit vastly different neurobiological and psychosocial worlds. Therefore, this study aims to conduct a preliminary clinical audit to describe the sociodemographic characteristics, diagnostic phenotypes, and clinical severity of adolescent psychiatric patients attending Bangli General Hospital in 2024. The novelty of this research lies in its granular focus on the phenotypic divergence between Early (14–16 years) and Late (17–19 years) adolescence within a distinct Balinese cultural setting. Moving beyond simple prevalence rates, this study seeks to map the developmental trajectory of psychopathology, hypothesizing that the clinical character of morbidity shifts from situational reactivity in early adolescence to endogenous mood pathology in late adolescence. By elucidating these patterns in a district hospital setting, this study aspires to provide the empirical groundwork for age-stratified, culturally sensitive mental health interventions in non-tertiary Indonesian healthcare facilities.

2. Methods

This study was conceptualized and executed as a hospital-based, retrospective case series audit. The selection of this specific observational design was driven by the exploratory nature of the research aim: to map the clinical contours of adolescent mental health in a setting where data is historically sparse. Unlike a cross-sectional survey, which captures community prevalence, a case series audit allows for a deep, granular examination of the treated prevalence, specifically, the clinical phenotypes that are severe or disruptive enough to trigger specialist referral in a developing health system. The research was conducted at the Psychiatric Polyclinic of Bangli General Hospital, Indonesia. In the stratified hierarchy of the Indonesian National Health System (*Jaminan Kesehatan Nasional*), Bangli Regional General Hospital functions as a Type-B secondary referral center. It serves a pivotal role as the healthcare anchor for the Bangli Regency, a region characterized by a unique demographic blend of semi-urban settlements and traditional agrarian communities. The hospital receives a dual stream of patients: those formally referred up from the network of primary health centers (*Puskesmas*) due to case complexity, and those brought directly by families bypassing primary care, often in states of acute distress. This specific setting offers a distinct advantage for clinical auditing; it captures the intermediate layer of psychiatric morbidity, meaning patients who require specialist intervention but do not necessarily require long-term institutionalization in tertiary mental asylums.

To ensure a comprehensive representation of the clinical load without the biases inherent in random selection, the study employed a total sampling (Total Enumeration) strategy. This approach involved the inclusion of every single eligible case recorded within the specified timeframe, thereby eliminating sampling error and ensuring that the dataset reflected the absolute clinical reality of the department for the calendar year. The study population comprised all adolescent patients, defined biologically and chronologically as individuals aged 10 to 19 years, who were registered in the psychiatric outpatient unit between January 1st, 2024, and December 31st, 2024.

To maximize data validity, strict inclusion criteria were applied. First, age verification was conducted to ensure patients fell strictly within the 10–19 year developmental window at the time of their initial consultation in 2024. Second, the medical record had to contain a definitive diagnosis based on the International Classification of Diseases, 10th Revision (ICD-10), established by a board-certified psychiatrist. This ensured that diagnostic labels were the result of expert clinical judgment rather than preliminary screening tools. Third, the records required sufficient documentation of presenting complaints and psychosocial stressors to allow for qualitative phenotypic mapping. To ensure the study focused exclusively on active psychopathology, administrative presentations were rigorously excluded. This included adolescents referred solely for bureaucratic requirements, such as visa medical clearances, NAPZA (narcotics) drug-free certification for school enrollment, or other non-clinical assessments where no active psychiatric disorder was present.

Following the application of these criteria, a total of N=23 patients were eligible for analysis. While this sample size is numerically modest compared to multi-center epidemiological surveys, it represents the entirety of the adolescent clinical caseload for the hospital's psychiatric department over a full calendar year. In the context of this study, the low number is not interpreted as a limitation of statistical power, but rather as a significant epidemiological finding in itself. It highlights the profound discrepancy between the estimated population prevalence of mental disorders (approximately 14% globally) and the actual service utilization rates in rural Bali. This underscores systemic issues such as barriers to access, the profound stigma surrounding psychiatry, which delays help-seeking, and the potential containment of milder pathology within the community or traditional healing systems.

Data extraction was performed in July 2025, allowing for a minimum six-month follow-up period

from the last potential entry in 2024 to ensure diagnostic stability in the records. Extraction was conducted using a standardized data harvesting protocol derived from the Electronic Medical Records (EMR) system. To compensate for the quantitative limitations of a small cohort, the data collection focused on phenotypic depth and clinical sophistication. The variables harvested were categorized into four distinct domains: (1) Sociodemographic Profiling: Beyond basic age and gender, age was stratified into developmental stages: Early (10-13), Middle (14-16), and Late (17-19) adolescence. This stratification was critical to testing the study's hypothesis regarding developmental divergence in pathology. Education level and living arrangement (nuclear versus extended family) were also captured to provide context on the patient's support system; (2) Clinical Phenotypes: This domain captured the primary ICD-10 diagnosis and the Duration of Untreated Illness (DUI), defined as the time lag between symptom onset and first medical contact. Furthermore, symptoms were qualitatively coded into dominant clusters, specifically Somatic (physical complaints, pain, sleep disturbance) versus Affective (mood, tearfulness, anhedonia), to assess cultural expressions of distress; (3) Severity Metrics (CGI-S): As standardized psychometric scales (such as the BDI or HAM-D) were not universally administered at intake, the study utilized a retrospective scoring method based on the Clinical Global Impression - Severity (CGI-S) scale. A trained researcher reviewed the intake notes, functional impairment descriptions, and symptom intensity recorded by the treating psychiatrist to assign a score ranging from 1 (Normal) to 7 (Among the most extremely ill). This method provided a semi-quantitative proxy for clinical severity, allowing for comparison between age groups; (4) Referral Pathway: The source of referral was categorized (Self/Family versus School/Puskesmas) to understand the pathways to care. This variable serves as a proxy for health literacy and the effectiveness of the early detection network in schools and primary care.

The raw data were entered into Microsoft Excel 2023 for initial cleaning, coding, and logical verification. Subsequently, the dataset was exported to SPSS Version 26.0 (IBM Corp, Armonk, NY) for formal analysis. The statistical approach was governed by methodological prudence. Given the limited sample size (N=23), the application of complex inferential statistics, such as multivariate regression or Chi-square testing, would lack sufficient statistical power and yield unreliable p-values. Consequently, the analysis was primarily descriptive and exploratory: (1) Categorical Variables: These are presented as absolute frequencies (n) and raw proportions. The use of percentages was minimized or used with caution to avoid false precision, which is the misleading impression of generalizability that arises when converting small numerators into percentages (for instance, 1 patient representing 4.3%); (2) Continuous Variables: Data such as age and DUI were summarized using means and ranges; (3) Pattern Recognition: Instead of hypothesis testing, the analysis utilized cross-tabulation (such as Age Group crossed with Diagnosis) to identify clinical patterns and qualitative trends. This allowed for the detection of signals in the data—such as the clustering of specific diagnoses in specific age bands—which serve as hypothesis-generating findings for future, larger-scale research.

The study was conducted in strict adherence to ethical standards for research involving human subjects. Ethical clearance was formally obtained prior to the commencement of data harvesting. The study protocol underwent rigorous review and was approved by the Research Ethics Committee of Bangli General Hospital, ensuring that the methodology respected the rights and welfare of the vulnerable adolescent population. Because the study involved a retrospective review of existing medical records with no direct patient interaction or intervention, a waiver of informed consent was granted by the committee. However, to ensure privacy, data anonymization was strictly enforced. All direct identifiers (names, medical record numbers, addresses) were removed at the point of extraction and replaced with unique study codes.

The resulting de-identified dataset was stored on a secure, password-protected server accessible only to the principal investigators, in full accordance with the principles of the Declaration of Helsinki.

3. Results

Table 1 delineates the sociodemographic profile of the clinical cohort (N=23), revealing distinct patterns in service utilization within the secondary care setting. The sample exhibited a moderate female predominance, accounting for 61% (n=14) of the population, which is consistent with global epidemiological trends regarding the higher prevalence of internalizing disorders in adolescent females. Chronologically, the distribution was heavily skewed toward late adolescence (17–19 years), which constituted nearly three-quarters of the sample (74%, n=17). Notably, there was a complete absence of patients in the early adolescent (10–13 years) category, suggesting that distress in this younger demographic may be under-detected, managed within the family system, or treated at the primary care level without specialist referral. Educational status closely mirrored this age distribution, with the majority of patients (61%) currently enrolled in Senior High School (SMA/SMK), coinciding with the intense academic pressures of the Indonesian national curriculum. In terms of social support structures, the vast majority (83%, n=19) resided within nuclear family units, while a minority lived with extended family. These demographic markers collectively indicate that the threshold for psychiatric help-seeking at Bangli General Hospital is most frequently reached during the critical transition period of late adolescence, particularly among females navigating the psychosocial demands of senior secondary education and the impending transition to young adulthood.

Table 1. Sociodemographic Characteristics

Adolescent Patients at Bangli General Hospital (N=23)

CHARACTERISTIC	CATEGORY	FREQUENCY (N)	PROPORTION (%)
Gender	Male	9	39%
	Female	14	61%
Age Group	Early Adolescence (10-13)	0	0%
	Middle Adolescence (14-16)	6	26%
	Late Adolescence (17-19)	17	74%
Education Level	Junior High (SMP)	6	26%
	Senior High (SMA/SMK)	14	61%
	University / Gap Year	3	13%
Living Arrangement	With Parents (Nuclear)	19	83%
	With Extended Family	4	17%

Table 2 presents the diagnostic distribution of the cohort, highlighting a distinct clinical profile characteristic of a secondary care setting. The data reveal a predominance of affective and physiological functional disorders over severe psychotic pathologies. Depressive episodes (ICD-10 code F32) emerged as the leading cause of morbidity, representing the primary diagnosis for 7 patients, followed closely by sleep disorders (F47.0) with 5 cases. This high burden of mood and sleep disturbances indicates that the primary clinical phenotype in this setting is driven by internalizing pathology rather than disruptive behavioral disorders.

Notably, the spectrum of severe mental illnesses (SMI)—specifically Schizophrenia (F20) and Acute Psychotic Disorders (F23)—accounted for a minority of the caseload (n=3). This relatively low incidence of psychosis stands in marked contrast to epidemiological data from Indonesian tertiary referral centers, where psychotic spectrum disorders typically dominate adolescent admissions. Furthermore, the significant presence of stress-related conditions, including adjustment disorders (n=3) and various Anxiety phenotypes (n=3), corroborates the study's premise that district hospitals serve as a critical catchment area for adolescents struggling with the immediate sequelae of psychosocial stressors and developmental transitions, rather than chronic or refractory psychiatric illness.

Table 2. Distribution of Psychiatric Diagnoses (ICD-10)

Clinical Profile of Adolescent Patients (N=23)

ICD-10 CODE	DIAGNOSIS	FREQUENCY (N)	CLINICAL PHENOTYPE / NOTE
F32	Depressive Episode	7	Predominantly Moderate severity; endogenous presentation
F47.0	Sleep Disorders	5	Often comorbid with anxiety; Revenge Bedtime Procrastination
F41.0	Panic / Anxiety Disorders	3	Somatic presentations common (palpitations, tremors)
F43.2	Adjustment Disorders	3	Situational triggers (school transition, peer conflict)
F20/F23	Psychotic Spectrum	3	Includes Paranoid Schizophrenia & Acute Psychotic Disorder
F41.2	Mixed Anxiety & Depression	2	Overlapping symptomatology
	TOTAL	23	

Table 3 elucidates the developmental divergence in psychopathology between middle and late adolescence, revealing a distinct phenotypic shift as patients transition toward young adulthood. The data indicate that middle adolescence (14–16 years) is clinically characterized by situational reactivity; notably, adjustment disorders were exclusively identified in this younger cohort (n=3), suggesting that

distress at this stage is primarily driven by adaptation to immediate stressors, such as school transitions, rather than entrenched mood pathology. In sharp contrast, late adolescence (17–19 years) marks the emergence of more severe, endogenous morbidity. This period captures the majority of Depressive Disorders (n=5) and the onset of psychotic spectrum conditions (n=5), supporting the hypothesis of a window of vulnerability that opens in the final years of secondary education. Furthermore, the aggregation of sleep disorders (n=4) and anxiety phenotypes (n=3) within this older demographic points to a complex interplay of neurobiological maturation and the chronic psychosocial pressure of high-stakes academic performance. Collectively, these findings demonstrate that while younger adolescents manifest distress through transient adjustment difficulties, late adolescents present with established internalizing disorders requiring more intensive clinical management.

Table 3. Diagnostic Clusters by Age Group

Cross-tabulation: Age vs. Diagnosis (N=23)

● Middle Adolescence (14-16) ● Late Adolescence (17-19)

DIAGNOSIS CLUSTER	AGE 14-16 (N=6)	AGE 17-19 (N=17)	CLINICAL PATTERN / INTERPRETATION
Depressive Disorders	n=2	n=5	THE DEPRESSIVE SHIFT Significant aggregation in late adolescence, correlating with academic pressures.
Adjustment Disorders	n=3	n=0	EXCLUSIVE TO EARLY Situational reactivity (school transition) dominates early teen years; absent in older group.
Anxiety / Panic	n=0	n=3	LATE ONSET Notable male predominance (n=2); likely cultural somatization of distress.
Sleep Disorders	n=1	n=4	HIGH COMORBIDITY Revenge Bedtime Procrastination and academic anxiety driving insomnia in older teens.
Psychosis / Other	n=0	n=5	SEVERE PATHOLOGY Late adolescence marks the typical age of onset for prodromal psychotic symptoms.

Table 4 delineates the clinical severity profiles and psychosocial precipitants of the cohort, revealing a clear gradation of impairment associated with developmental stage. Quantified by the Clinical Global Impression - Severity (CGI-S) scale, late adolescents presented with significantly higher morbidity (mean score 4.5), indicating moderate-to-marked illness, compared to the mild severity observed in the middle adolescent cohort (mean score 3.1). This severity gap correlates with a longer duration of untreated illness in older teens, suggesting that symptoms are often tolerated or ignored until they reach a threshold of functional decompensation. Regarding etiology, self-reported stressors exhibited a sharp developmental divergence. Academic pressure emerged as the predominant trigger (n=12), clustering almost exclusively in the late adolescent group, coinciding with the timing of high-stakes national examinations

and university entrance. Conversely, middle adolescents were more frequently precipitated by family and peer conflict (n=7), aligning with the social instability characteristic of early puberty. Finally, the referral pathway analysis highlights a structural dependency on familial intervention; 78% of cases were family-initiated, while school-based referrals remained negligible (9%). This finding underscores a critical gap in early detection within the educational system, implying that internalizing symptoms often go unrecognized by educators until they escalate into family crises.

Table 4. Clinical Severity & Dominant Stressors

Retrospective Analysis of Clinical Indicators (N=23)

METRIC CATEGORY	DETAILED FINDINGS & VISUALIZATION
Mean CGI-S Score Clinical Global Impression - Severity (Scale 1-7)	Middle Adol. (14-16) — 3.1 (Mild) Late Adol. (17-19) — 4.5 (Moderate) *Late adolescents exhibit significantly higher impairment, correlating with longer duration of untreated illness.
Dominant Stressors Self-reported triggers precipitating the visit	Academic Pressure: n = 12 — PRIMARY IN LATE ADOL. Family/Peer Conflict: n = 7 — PRIMARY IN MIDDLE ADOL. Unknown/Other: n = 4 — ENDOGENOUS FACTORS
Referral Pathway Source of initiation for medical contact	Family (78%) | Self (13%) | Sch (9%) Family Initiated (n=18) · Self-Referral (n=3) · School Referral (n=2)

4. Discussion

The central narrative emerging from this clinical audit is a profound phenotypic bifurcation based on developmental stage.[11] The primary finding—the distinct aggregation of Depressive Disorders and high clinical severity scores within the late adolescent cohort (17–19 years)—suggests that this period represents a critical window of vulnerability in the ontogeny of mental illness. While our data confirms the well-established global epidemiological trend of a gender gap in depression, wherein post-pubertal females are significantly more likely to experience internalizing disorders than their male counterparts, the specific clustering of these cases in the final years

of adolescence implies that biological predisposition is being heavily modulated by environmental exigencies.

In the specific context of the Indonesian education system, the age of 17 to 19 corresponds to the final years of Senior High School (*Sekolah Menengah Atas* or SMA). This is not merely an academic milestone but a high-stakes existential threshold. The immense pressure exerted by National Examinations and the highly competitive Computer-Based Test for University Admission (SNBT) likely acts as a potent, chronic psychosocial stressor. For many Balinese youth, university admission is viewed as the singular gateway to social mobility and economic security.[12] Consequently, the transition to adulthood in the 21st century has mutated into what can be described as a crisis of competence. In this framework, the fear of academic failure does not manifest simply as worry but precipitates full-syndrome depressive symptomatology, characterized by anhedonia, fatigue, and a collapse of self-worth.

From a neurobiological perspective, this psychosocial overload occurs at a precarious moment of brain development. Late adolescence is characterized by the final, intensive phase of synaptic pruning and myelination within the prefrontal cortex.[13] This region is the neural substrate for executive functions, including impulse control, long-term planning, and, crucially, the top-down regulation of the stress response. There exists a temporal mismatch: the emotional centers of the brain (the limbic system) are fully mature and highly reactive, while the brakes provided by the prefrontal cortex are still under construction. The mismatch between this developing biological hardware and the intense academic software demanded by the modern school system may drive the depressive shift observed in our data. The brain is effectively asked to perform high-level emotional regulation under extreme stress before the neural circuitry to do so is fully online, resulting in the clinical phenotype of depression.[14]

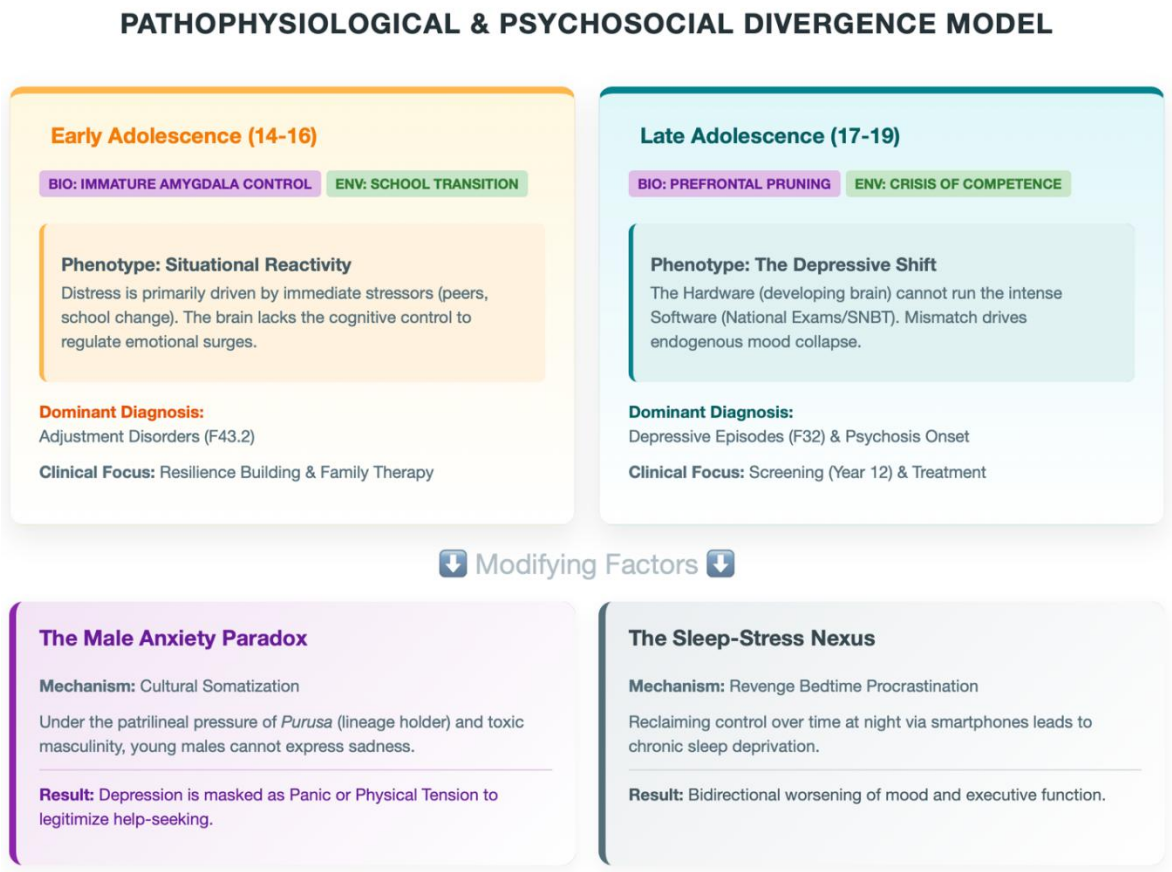

Figure 1. Pathophysiological and psychosocial divergence model.

In sharp contrast to the entrenched mood pathology of the older group, the clinical profile of early adolescence (14–16 years) was exclusively dominated by adjustment disorders. This finding establishes a critical developmental distinction between the situational reactivity of early puberty and the endogenous pathology of young adulthood. Younger adolescents are navigating a different set of developmental tasks. They are in the midst of the transition from primary to secondary education, a shift that requires navigating new, complex peer hierarchies and social acceptance. At this stage, the cognitive control systems required to contextualize failure or rejection are significantly less developed than their emotional reactivity centers, specifically the amygdala. Consequently, these patients are prone to acute, situational distress in response to specific triggers—such as a classroom conflict, a change in schools, or familial discord.[15]

Clinically, it is vital to distinguish these presentations from Major Depressive Disorder. These patients exhibit significant functional impairment, yet their symptoms are often time-limited and inextricably linked to a specific stressor. The exclusivity of adjustment disorders in this age group dictates a specific therapeutic imperative. Medicalizing this distress with immediate pharmacotherapy may be inappropriate or even counterproductive. Instead, clinical interventions for this demographic should prioritize resilience building, family therapy to stabilize the home environment, and skills training to improve social adaptability. The goal is to scaffold their developing coping mechanisms rather than to treat a chemical imbalance.

Perhaps the most fascinating qualitative signal in this pilot cohort was the male anxiety paradox—the observation that anxiety disorders were predominantly found in males within the late adolescent group, contradicting global statistics where anxiety is typically female-predominant. To understand this anomaly, one must look through the lens of Balinese culture. Bali is a strictly patrilineal society. Upon birth, a male child is designated as *Purusa*, the carrier of the family lineage. This status confers not only inheritance rights but also a heavy burden of spiritual and economic responsibility. The young Balinese male is expected to eventually lead religious ceremonies, care for aging parents, and maintain the family's standing in the village community (*Banjar*). As these boys approach the threshold of adulthood (17–19 years), the weight of these future obligations becomes palpable.[16]

However, traditional gender norms, often reinforced by the concept of toxic masculinity, may prevent these young males from expressing feelings of sadness, helplessness, or vulnerability, which are culturally stigmatized as signs of weakness or feminine traits. In a medical anthropology context, this often leads to a phenomenon of masking or somatization. Unable to articulate "I am sad" (which implies depression), the male patient somatizes his distress into "I am tense," "I cannot breathe," or "My heart is racing." These somatic symptoms of anxiety and panic are more culturally acceptable to report in a medical setting because they mimic physical illness. Thus, what presents clinically as panic disorder or generalized anxiety in Balinese males may, in fact, be a masked phenotypic expression of underlying depressive pathology or existential dread regarding their role as *Purusa*. This hypothesis warrants rigorous investigation with larger sample sizes to determine if this anxiety mask is a consistent cultural phenotype across the island.

Sleep disorders constituted a significant portion of the diagnostic burden, appearing predominantly in late adolescence and often comorbid with affective symptoms.[17] In psychiatry, sleep disruption is bidirectional; it is both a prodromal symptom warning of an impending mental health relapse and a debilitating consequence of untreated anxiety or depression. The high rate of sleep complaints in this cohort likely reflects a modern behavioral phenomenon known as revenge bedtime procrastination. This behavior is particularly common among high-achieving youths who feel a lack of control over their daytime lives due to the rigorous demands

of school and tutoring.[18] To regain a sense of agency and freedom, they sacrifice sleep to engage in leisure activities, social media, or gaming late into the night via smartphones. This creates a vicious cycle: academic pressure leads to bedtime procrastination, which leads to chronic sleep deprivation, which in turn degrades emotional regulation and exacerbates depressive symptoms. Recognizing this pattern offers a tangible clinical entry point. Discussing depression can be intimidating and stigmatizing for a Balinese family. However, addressing sleep hygiene is a neutral, non-stigmatizing medical intervention. By targeting the sleep-wake cycle, clinicians may be able to indirectly stabilize mood and improve functional outcomes in this demographic, making sleep management a cornerstone of adolescent psychiatric care.[19]

The primary limitation of this study is the small sample size (N=23). However, rather than viewing this merely as a statistical flaw, we interpret the low number as a profound systemic indicator. A regional hospital serving a large regency like Bangli should theoretically see hundreds of adolescent patients annually given the global prevalence of mental disorders. The fact that only 23 reached the specialist clinic indicates the presence of massive barriers to access. Three primary filters likely prevent care-seeking. First is the pervasive stigma surrounding mental illness in Bali, where psychiatric symptoms are sometimes attributed to *Karma* (past actions) or a flaw in the family lineage, prompting families to hide the afflicted child. Second is the retention of mild-to-moderate cases at the primary care level (*Puskesmas*), where they may be treated by general practitioners without referral. Third is referral bias, suggesting that the patients in this study represent only the most severe, refractory, or disruptive cases—the tip of the iceberg. This biases our severity scores upward, as we are likely missing the submerged mass of mild depression and anxiety existing silently in the community. Consequently, these findings should be viewed as a descriptive case series of the treated population rather than an epidemiological prevalence study of the general population.[20]

5. Conclusion

This retrospective pilot audit provides a vital, high-resolution clinical snapshot of adolescent mental health within the under-researched setting of a Balinese district hospital. By dissecting the clinical profiles of 23 patients, the study moves beyond general prevalence rates to illuminate the specific developmental and cultural textures of psychiatric morbidity in this region. We draw three primary conclusions: First, a clear Diagnostic Divergence exists based on age. The mental health challenges of adolescence are not monolithic. Younger adolescents (14–16) struggle primarily with situational adjustment disorders driven by immediate social transitions, whereas older adolescents (17–19) exhibit established, endogenous depressive and sleep disorders. This shift indicates that the nature of pathology hardens and internalizes as the child transitions toward adulthood. Second, a distinct Window of Vulnerability opens at age 17. This vulnerability is likely driven by the dangerous intersection of biological maturation (incomplete prefrontal cortical control) and the peak intensity of academic stress (national exams and university entrance). This creates a perfect storm for the onset of mood disorders. Third, Cultural Somatization heavily influences clinical presentation, particularly in males. The male predisposition toward anxiety phenotypes suggests that cultural expectations of masculinity may be masking underlying depression, forcing distress to be expressed through the more acceptable channel of somatic anxiety.

Based on these findings, interventions at Bangli General Hospital and the surrounding health network should be rigorously age-stratified. Treating a 14-year-old with school adjustment issues requires a fundamentally different protocol than treating a 19-year-old with major depression. We urgently recommend the implementation of school-based mental health screenings specifically for Year 12 students (17–18 years). Using validated tools like the

strengths and difficulties questionnaire (SDQ) or the Beck Depression Inventory (BDI), schools can identify students in the prodromal phases of depression before the condition becomes refractory or results in academic failure. For younger students (14–15 years), resources should be directed toward guidance counseling focused on school adaptation and peer resilience. Finally, the limitation of sample size must be addressed structurally. Future research should move beyond single-center retrospective audits to establish a multi-center registry. By pooling data from all district hospitals in Bali—such as Gianyar, Klungkung, and Bangli—researchers could generate the statistical power (N>100) necessary to formally test the hypothesis of the male anxiety paradox and validate the age-based phenotypic divergence observed in this pilot study. Such a registry would provide the robust empirical foundation needed to advocate for policy changes and resource allocation for adolescent mental health in Bali.

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