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Cultural Selfhood, Stress Coping, and the Logic of Self-Medication among Japanese Adolescents

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Abstract:

Concerns over hidden kinds of psychological discomfort have increased as a result of the constraints placed on Asian adolescents by their strict societal standards and exam-driven educational system. The present study employs Self-Medication Hypothesis, Stress and Coping Theory, and cultural self-construal theory to analyze non-prescription drug misuse among Japanese adolescents. Findings of this study reveal that Japan's interdependent self-construal—emphasizing group harmony and private/public dissociation—triggers adolescents' appraisal of academic stressors ("examination hell") and relational stressors ("ignoring-type bullying") as collective shame. Consequently, professional psychological support is deemed "culturally unavailable," leading adolescents to adopt covert self-medication as a culturally congruent coping strategy. Notably, over-the-counter (OTC) drug misuse exceeds stimulant use in this cohort. Substances (e.g., diphenhydramine, dextromethorphan) function as "biochemical armor" against specific relational traumas, enabling "pseudo-participation" while preserving social face. The study elucidates a triadic reinforcement mechanism where cognitive, cultural, and stress-coping dimensions interact cyclically. Interventions must concurrently target all three dimensions.

Keywords: Japanese adolescents; over-the-counter drug misuse; self-medication hypothesis.

1. Introduction

Japan's educational excellence and social harmony often mask a profound psychological crisis among its youth—rising incidence of adolescent depression and drug misuse. Globally, adolescent substance misuse reflects a universal struggle with developmental stressors, yet Japan's crisis manifests uniquely through culturally amplified pathways. While youth drug abuse typically peaks in individualistic societies (e.g., U.S.), Japan faces an epidemic of non-prescription drug (OTC) misuse—where legal medications

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become tools for silent suffering. The proportion of adolescent patients in psychiatric treatment who primarily abused OTC drugs surged from 25.0% in 2016 to 65.2% in 2022 [1,2]. Concurrently, a nationwide survey revealed that 1.57% of Japanese high school students admitted to misusing OTC drugs for recreational purposes or to escape reality within the past year [2].

The Self-Medication Hypothesis (SMH) provides a critical lens, positing that individuals select substances to alleviate specific psychological distress [3]. Yet, SMH alone cannot explain why Japanese adolescents disproportionately resort to covert self-medication over professional help. Here, Lazarus and Folkman's Transactional Model of Stress and Coping provides critical augmentation: its emphasis on cognitive appraisal clarifies how cultural norms shape threat perception (e.g., academic failure as familial shame) and constrain access to adaptive coping resources (e.g., stigma against mental healthcare) [4].

Crucially, Markus and Kitayama's framework unveils the cultural bedrock. Japan's interdependent self-construal—prioritizing group harmony (wa) over individual expression—creates a unique psychological landscape: the interdependent self is defined by relationships, maintaining harmony requires vigilant self-monitoring and emotional restraint. This fosters true feelings/public façade dissonance, amplifying stressors like peer pressure while pathologizing vulnerability disclosure. Consequently, adolescents appraise formal support as culturally "unavailable," turning to SMH as a culturally congruent, clandestine coping tactic [3,5,6].

2. Literature Review

2.1 Cultural Foundations of Substance Use Motivations

Japanese adolescents navigate a culturally modulated pathway of stress coping that often leads to self-medication, particularly under the synergistic amplification of dual, compounding stressors. Academic pressures manifest in a profound "exam hell that dissolves the self," frequently compounded by a cognitive distortion where substances are "misperceived as concentration enhancer before exams" in efforts to do better [2,6].

Relational toxicity constitutes a mode of social violence in which group exclusion operates as social death, manifesting in victims through intense loneliness, self-estrangement, and a pervasive fear of interpersonal connection [7]. With motivations because others are doing it intensifying peer-driven substance usage [6]. Empirical evidence reveals significant interaction effects between these stressors. The covert mechanics of bullying in Japan's collective context operate through a tripartite structure of deprivation, targeting relational, psychological, and pharmacological dimensions. Relational exclusion—experienced as being "seen but ignored on social networking service"—inflicts existential negation, driving victims towards sedatives for reality dissociation, directly aligning with the motivation to feel good through neurological dopaminergic reward system activation [8].

Adolescents subjected to chronic psychological distress, particularly from relational aggression and boundary violations, may develop maladaptive coping strategies rooted in the Self-Medication Hypothesis (SMH) [3]. To counteract profound feelings of inefficacy and ego fragmentation resulting from persistent verbal denigration, stimulants are often used to artificially restore a sense of competence and agency. Conversely, experiences of personal space intrusion and psychological entrapment can provoke a dissociative response, leading to the misuse of substances like dextromethorphan—an NMDA receptor antagonist—to achieve cognitive escape from unbearable social-environmental stressors [3,9].

Case evidence aligns with the pathway. A 17-year-old girl featured in the NCNP (2023) report began misusing cough syrup after years of domestic turmoil [8]. She explained, "Over-the-counter medicine lets me forget the bad stuff... I have to get so high that I can't think, or I can't sleep." Consequently, substances such as diphenhydramine function as biochemical armor against this specific relational trauma—a critical manifestation of the motivation to feel better, which in the Japanese context translates to temporary role suspension and deploying chemical armor against social fear [3,8].

Its potent neuropharmacological properties—sedation, affective blunting, and cognitive impairment—serve critical social functions for Japanese adolescents. For instance, some dose before group activities to chemically maintain surface harmony. Others use it to suppress tears during bullying, complying with the norm of "never show weakness," or to attenuate the pain of teacher reprimands, thus preserving the required tatemae role [5,6].

Critically, the nature of social pressure must be emphasized: unlike overt bullying often seen in Western contexts, Japan's "ignoring-bullying" inflicts psychologically devastating harm through systematic ostracization; the drugs function biochemically to sustain "pseudo-participation" within the group [6,7].

2.2 Impact of Collectivism on Self-medication Motives

Cultural Patterning of Adolescent OTC Misuse: A U.S.–Japan Comparison

Japan is experiencing a growing crisis of adolescent OTC drug dependence. Between 2014 and 2020, the proportion of Japanese adolescents receiving drug dependence treatment who primarily abused non-prescription drugs surged from 24.0% to 56.4%, indicating a steady annual increase in OTC drug misuse among youth [6].

Nonprescription drug misuse manifests through fundamentally distinct cultural scripts in Japan and the United States, reflecting deeper societal values around selfhood and coping. In Japan, such misuse operates as a relationally embedded coping mechanism, with behavioral data revealing that 56% of adolescents initiate use through explicit peer solicitation—often framed through relational invitations like "a friend recommended 'special cigarettes'"—and sustain it through collective rituals such as "it's fun to OD together before karaoke" [6].

This pattern underscores a motivation deeply tied to social belonging and shared emotional management, as seen in admissions that "interpersonal conflicts make quitting impossible" [6]. In stark contrast, American adolescents predominantly frame substance use through an individualistic lens: 73% prioritize achieving internal states like "feeling mellow, calm, or relaxed," while 50% characterize use as autonomous experimentation ("to have fun or experiment") [1].

This focus on self-regulation is further accentuated in prescription drug misuse, which exhibits anomalous solitary consumption—51% use alone, often to alleviate personal frustrations such as feelings of inadequacy ("I'm not good enough") [1]. Where Japanese patterns reveal a collective coping response that reinforces group bonds, American behaviors reflect a self-focused pursuit of emotional control or self-enhancement, highlighting how cultural values shape the very meaning and function of substance misuse [1,5].

Therapeutic approaches reflect this cultural alignment: Japanese interventions emphasize collective efficacy rebuilding through communal activities (e.g., outreach center meal programs), while American programs target individual resilience via CBT-based coping training [1,6]. This divergence underscores Japan's need for identity-preserving approaches ("social face maintenance") versus America's focus on self-regulatory competence.

3. Integrated Theoretical Framework: The Tripartite Reinforcement Mechanism

The motivational structure underlying self-medication behavior emerges from the dynamic convergence of social cognitive theory, collectivist cultural paradigms, and stress-coping mechanisms, forming a self-perpetuating cycle that amplifies substance reliance as a culturally embedded coping strategy [3,4,5,10].

At the cognitive level, Bandura's social cognitive theory elucidates how self-efficacy deficits in emotional regulation—manifested as perceived inability to manage distress through intrinsic resources—combine with positive outcome expectancies regarding pharmacological effects to initiate substance use [10]. Neurobiological evidence substantiates this: opioids attenuate rage through μ-opioid receptor agonism, while stimulants counteract anhedonia via dopamine reuptake inhibition, creating neuroadaptive rewards that reinforce usage [3,9].

This chemical substitution operates as a maladaptive compensatory mechanism for deficits in emotional regulation. By temporarily alleviating distressing states that individuals cannot manage intrinsically, these substances disrupt the brain's natural reward pathways and induce neuroadaptive changes, ultimately fostering dependency as the brain becomes reliant on external pharmacological agents to maintain emotional equilibrium [3,9].

Crucially, these cognitive processes are magnified in collectivist societies where cultural scripts prioritize emotional suppression. Japanese "wa" (harmony) norms, for instance, stigmatize public emotional expression, rendering covert substance use a culturally congruent "face-preserving" strategy [5]. Empirical data reveals 68% of East Asian adolescents (with Japan as a primary research context) prefer substances over psychotherapy to avoid social shaming [6].

This high-pressure cultural environment intersects with maladaptive stress-coping pathways, completing a self-reinforcing cycle of psychological distress and substance reliance. Lazarus and Folkman's model clarifies that when culturally constrained coping resources (e.g., discouraged help-seeking) collide with overwhelming stressors, substances become the "path of least resistance"—offering rapid symptom relief without social exposure risk [4]. Cross-sectional study confirms this trajectory: 72.6% of Japanese substance-initiating adolescents cite "want to get out of a bad mental state" as the catalyst, while early onset (pre-age 14) predicts 8.7 times higher dependency risk [1,6].

Neuroadaptations further entrench this pattern; chronic use downregulates endogenous opioid systems, necessitating escalating doses to achieve initial relief, thereby activating a "suppression-relief-shame-reuse" spiral wherein each cycle depletes intrinsic coping capacity [3,4,9].

4. Conclusion

Synthesis of extant literature indicates that adolescent

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self-medication in Japan constitutes culturally mediated pathology: Interdependent self-construal transforms systemic stressors (academic/relational) into collective shame, compelling youth toward OTC drugs as biochemical armor for "pseudo-participation". Integration of SMH, Stress and Coping Theory, and cultural self-construal frameworks reveals a triadic reinforcement mechanism (cognitive-cultural-coping) perpetuating this adaptation. This supports interpreting substance misuse as a culturally congruent coping strategy.

Consequently, interventions should concurrently target all three dimensions. The triadic intervention framework necessitates synchronized targeting of cognitive, cultural, and stress-coping dimensions to disrupt Japan's self-medication cycle:

Cognitively, mindfulness-based self-efficacy training dismantles "substance superiority" beliefs, reducing reliance on pharmacological crutches.

Culturally, reframing help-seeking as communal strength—via anonymous keiretsu-style networks—mitigates shame barriers, evidenced by 39% relapse reduction in trials.

Behaviorally, digital scaffolds (e.g., AI emotion diaries) provide low-risk alternatives to dissociative drug use.

Concurrently addressing these dimensions prevents isolated interventions from being undermined by the system's feedback loops: cognitive restructuring alone fails without cultural stigma reduction, while cultural shifts lack traction if individuals lack coping tools. This integrated approach leverages neuroplasticity, social contagion, and scalable habit substitution, collectively fostering sustainable resilience.

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