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A Theoretical Exploration of the Psychosomatic Impact of COVID-19 on Women

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ABSTRACT

This theoretical research examines how the COVID-19 pandemic intensified psychosomatic experiences among women. Psychosomatism—the manifestation of psychological stress through physical symptoms—is deeply influenced by biopsychosocial and gender-role dynamics. Drawing on established theories such as the Biopsychosocial Model, Gender Role Theory, Stress-Diathesis Model, and Trauma-Stress Response Theory, this paper conceptualises why women experienced heightened psychosomatic distress during the pandemic. It argues that the pandemic magnified structural inequalities, emotional labour, domestic responsibilities, and caregiving roles, leading to greater mind–body conflict and physical symptom expression. As a theoretical exploration, the study synthesises interdisciplinary perspectives to understand women's psychosomatic vulnerability in crisis contexts.

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1. INTRODUCTION

The COVID-19 pandemic, beginning in late 2019, rapidly evolved into an unprecedented global crisis that reshaped the psychosocial and physiological landscape of human life. Beyond the immediate threat of infection, the pandemic introduced prolonged uncertainty, fear, social isolation, economic instability, and disruptions in daily functioning. While these stressors affected the entire global population, emerging theoretical discourse suggests that **women experienced a significantly heightened psychosomatic impact** due to their socio-cultural positioning, emotional labour expectations, and gendered roles within households and workplaces.

Psychosomatism—defined as the process through which psychological distress manifests as physical symptoms in the body—provides a powerful framework for understanding how the pandemic affected women's health. Psychosomatic responses can include headaches, gastrointestinal disturbances, sleep irregularities, heart palpitations, musculoskeletal pain, dermatological flare-ups, hormonal imbalances, and chronic fatigue. These manifestations occur not because of direct organic pathology but due to the sustained activation of stress pathways in the mind–body system. Theoretical models in psychology, such as the **Biopsychosocial Model**, **Stress-Diathesis Theory**, and **Trauma-Stress Response Theory**, emphasise how prolonged emotional strain can convert into bodily symptoms—particularly among populations exposed to chronic stressors. During COVID-19, women were positioned at the intersection of biological vulnerability, psychological burden, and socio-structural pressures, creating conditions conducive to psychosomatic distress.

Globally, women assumed a disproportionate share of caregiving responsibilities for children, elderly family members, and COVID-positive individuals. Lockdowns closed schools, childcare centres, and workplaces, collapsing the boundaries between professional obligations and domestic labour. The shift to work-from-home arrangements intensified **role overload**, forcing women to simultaneously navigate multiple roles—employee, mother, caregiver, homemaker—often without adequate support. According to gender role theory, such overlapping responsibilities contribute to cognitive, emotional, and physical strain, forming the preconditions for psychosomatic symptom development.

Additionally, women's emotional labour increased significantly during the pandemic. They were culturally and socially expected to maintain family stability, manage domestic tensions, and provide emotional support to children and partners experiencing pandemic-related anxiety. The burden of invisible and unpaid emotional labour has long been theorised as a catalyst for somatic complaints, particularly among women. This emotional expectation, compounded by social isolation, disrupted support networks, and limited access to coping outlets, accelerated psychosomatic manifestations.

For many women, the home environment—often assumed to be a space of safety—became a site of heightened vulnerability. Reports across countries indicated a sharp rise in domestic violence, described by global agencies as the

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“shadow pandemic.” The theoretical connection between trauma exposure and somatisation is well documented: victims of psychological or physical abuse often experience chronic pain, sleep disturbances, palpitations, gastrointestinal issues, and psychosomatic anxiety symptoms. The pandemic increased women’s exposure to violent partners while simultaneously decreasing access to external support systems, counselling, or legal recourse, exacerbating psychosomatic suffering.

The economic dimension further intensified psychosomatic reactions. Women were overrepresented in pandemic-affected sectors—hospitality, caregiving, education, retail—and many faced job loss, reduced income, or unstable working conditions. Financial insecurity, role strain, and diminished autonomy contributed to heightened stress activation, reinforcing psychosomatic pathways. Moreover, female healthcare workers—nurses, frontline staff, social workers—faced continuous exposure to trauma, fatigue, and infection anxiety, placing them at exceptionally high risk for psychosomatic disorders.

Thus, the psychosomatic impact of COVID-19 on women cannot be understood merely as a health phenomenon but as a **complex interplay of gender, culture, psychology, and structural inequalities**. Women’s bodies became sites where accumulated stress, invisible labour, unacknowledged trauma, and societal expectations converged and manifested physically. This theoretical paper therefore seeks to analyse these dynamics through established conceptual frameworks and illuminate how and why women experienced intensified psychosomatic distress during the pandemic.

In doing so, the research aims to contribute to a deeper understanding of gendered health disparities and highlight the need for gender-responsive mental health interventions, psychosomatic screening, and supportive policies during future crises. By situating women’s psychosomatic experiences within broader socio-psychological and cultural structures, this paper underscores that the pandemic’s impact on women extended far beyond the physiological threat of infection—penetrating deeply into their emotional, cognitive, and bodily worlds.

2. PSYCHOSOMATIC THEORY: A CONCEPTUAL AND HISTORICAL FRAMEWORK

Psychosomatic theory provides a foundational lens for understanding the **interdependence of psychological processes and physiological functioning**, challenging the traditional biomedical separation of mind and body. At its core, psychosomatic inquiry examines how emotional, cognitive, and social experiences are translated into bodily symptoms, often in the absence of identifiable organic pathology.

2.1 Conceptual Foundations of Psychosomatism

The term psychosomatic is derived from the Greek words *psyche* (mind) and *soma* (body), reflecting the central premise that **mental states can influence physical health outcomes**. Contemporary psychosomatic theory is grounded in the **Biopsychosocial Model**, which posits that health and illness arise from the dynamic interaction of biological, psychological, and social factors.

Within this framework, psychosomatic symptoms are not viewed as imaginary or secondary but as **legitimate physiological responses** to psychological distress. Mechanisms such as stress-induced hormonal changes, autonomic nervous system activation, and immune modulation provide biological pathways through which emotional experiences become embodied.

Modern conceptualizations also incorporate theories such as:

- **Somatization**, where psychological distress manifests as physical symptoms
- **Allostatic load**, referring to the cumulative physiological burden of chronic stress
- **Mind-body integration**, emphasizing bidirectional communication between neural, endocrine, and immune systems

These perspectives collectively reinforce the understanding that psychosomatic conditions are **multifactorial and systemically embedded**, rather than isolated psychological phenomena.

2.2 Historical Evolution of Psychosomatic Theory

The roots of psychosomatic thought can be traced to ancient medical traditions. Early Greek physicians, including **Hippocrates**, emphasized the unity of mind and body, proposing that emotional states could influence physical health. However, this holistic perspective was largely overshadowed during the rise of **Cartesian dualism** in the 17th century, which conceptualized the mind and body as separate entities. This dualistic approach significantly shaped Western medicine, privileging biological explanations and marginalizing psychological influences.

The re-emergence of psychosomatic theory in the late 19th and early 20th centuries was influenced by developments in psychoanalysis. **Sigmund Freud** introduced the concept of **conversion disorders**, where unresolved psychological

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conflicts are expressed as physical symptoms. This marked a critical shift toward recognizing the role of unconscious processes in somatic experiences.

Subsequent contributions from researchers such as **Franz Alexander** advanced the field by proposing that specific emotional conflicts could be linked to particular physical illnesses, laying the groundwork for early psychosomatic medicine.

By the mid-20th century, the field evolved further with the integration of physiological research. Advances in stress biology, particularly the work on the **General Adaptation Syndrome**, demonstrated how chronic stress produces measurable changes in bodily systems. This period also saw the formal establishment of psychosomatic medicine as a clinical discipline.

2.3 Contemporary Perspectives and Interdisciplinary Integration

Contemporary psychosomatic theory is inherently interdisciplinary, drawing from fields such as **neuroscience, immunology, endocrinology, psychology, and sociology**. Modern research emphasizes the concept of **psychoneuroimmunology**, which examines how psychological processes influence immune function through neural and hormonal pathways.

A key advancement in recent decades has been the recognition of **bidirectional communication between the brain and body**, often conceptualized through systems such as the **gut-brain axis** and neuroendocrine signaling pathways. These insights have provided empirical support for psychosomatic mechanisms, demonstrating that psychological stress can alter inflammation, immune response, and disease progression.

Furthermore, contemporary frameworks highlight the role of **social determinants of health**, including gender, socioeconomic status, and cultural context, in shaping psychosomatic experiences. This shift moves the field beyond purely individual-level explanations toward a more **contextualized understanding of illness**.

2.4 Relevance to the COVID-19 Context

The COVID-19 pandemic represents a unique global stressor that has intensified conditions conducive to psychosomatic manifestations. Prolonged uncertainty, social isolation, health-related anxiety, and economic instability have collectively contributed to **chronic stress exposure at a population level**.

Within this context, psychosomatic theory provides a critical framework for understanding the rise in:

- Medically unexplained symptoms
- Chronic fatigue and pain syndromes
- Stress-related physiological disturbances

For women, the relevance of psychosomatic theory is particularly pronounced due to the intersection of **biological sensitivity, emotional labour, and structural inequalities**. The pandemic has amplified these factors, making psychosomatic theory an essential tool for interpreting both the **individual and collective dimensions of health during crises**.

2.5 Critical Reflections

While psychosomatic theory has significantly advanced understanding of mind-body interactions, it has also faced criticism, particularly regarding the risk of **over-psychologizing physical symptoms**. Historically, this has contributed to the marginalization of patients—especially women—whose symptoms were dismissed as “psychological” rather than investigated thoroughly.

Modern approaches seek to address these limitations by emphasizing:

- Biological validation of psychosomatic processes
- Patient-centered and non-stigmatizing language
- Integration of psychological and medical care

Thus, contemporary psychosomatic theory strives to balance recognition of psychological influences with **rigorous biomedical investigation**, ensuring that patients receive comprehensive and respectful care.

3. GENDERED STRESSORS DURING THE COVID-19 PANDEMIC

3.1 Caregiving Overload and the Burden of Emotional Labour

One of the most salient gendered stressors during the pandemic was the dramatic escalation of caregiving responsibilities. Women were disproportionately responsible for childcare during school closures, elder care for vulnerable family members, and emotional caregiving for partners and extended families. This burden extended beyond physical tasks to

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include emotional regulation—soothing anxiety, maintaining household morale, and managing interpersonal tensions during lockdowns.

Emotional labour, often invisible and undervalued, requires sustained suppression of personal distress in favor of relational harmony. Psychosomatic theory suggests that such emotional suppression contributes to somatic symptom formation, as unprocessed affect accumulates physiologically. Chronic headaches, gastrointestinal complaints, fatigue, and musculoskeletal pain reported by women during the pandemic can be understood as embodied manifestations of sustained emotional containment.

3.2 Economic Insecurity and Occupational Stress

The economic fallout of COVID-19 disproportionately affected women, particularly those employed in informal sectors, service industries, and part-time or precarious work. Job loss, income instability, and increased workload for those retaining employment generated persistent financial anxiety. Even among professional women, the pressure to remain productive while managing domestic responsibilities created significant role strain.

Economic stress activates prolonged sympathetic nervous system responses, increasing vulnerability to psychosomatic conditions such as hypertension, cardiac symptoms, and gastrointestinal disturbances. For women, whose economic roles are often undervalued and insecure, financial stress during the pandemic functioned as both a psychological and physiological risk factor.

3.3 Exposure to Domestic Stress and Gender-Based Violence

Lockdowns confined women to domestic spaces that were not universally safe. Reports of domestic violence and psychological abuse increased globally during the pandemic. Continuous exposure to fear, hypervigilance, and emotional threat creates conditions conducive to psychosomatic symptomatology.

Trauma-informed psychosomatic models highlight how chronic interpersonal stress disrupts autonomic regulation, leading to symptoms such as chest tightness, breathlessness, chronic pain, and sleep disturbances. In such contexts, the body becomes the primary site of distress expression when external escape or articulation is impossible.

4. PSYCHONEUROBIOLOGICAL MECHANISMS UNDERLYING PSYCHOSOMATISM

4.1 HPA Axis Dysregulation and Chronic Stress

The **Hypothalamic–Pituitary–Adrenal Axis (HPA axis)** serves as a central regulatory system governing the body's response to stress through the coordinated release of glucocorticoids, primarily cortisol. Under acute stress conditions, this system facilitates adaptive responses; however, during prolonged crises such as the COVID-19 pandemic, sustained activation leads to maladaptive physiological consequences.

Chronic activation of the HPA axis results in **cortisol dysregulation**, characterized by either hypercortisolism or hypocortisolism, both of which disrupt immune functioning and inflammatory balance. Women may be particularly vulnerable to such dysregulation due to the modulatory effects of **sex hormones such as estrogen and progesterone**, which interact with stress-response pathways. These hormonal influences can amplify stress sensitivity, resulting in heightened physiological reactivity and prolonged recovery periods.

Empirical and theoretical research has linked HPA axis dysregulation to a spectrum of psychosomatic and systemic conditions, including **chronic fatigue syndromes, autoimmune disorders, metabolic dysregulation, and affective disorders such as depression and anxiety**. During the pandemic, increased reports of fatigue, somatic pain, and immune-related disturbances among women underscore the biological embedding of chronic stress exposure. These outcomes reinforce the understanding that psychosomatic symptoms are not merely psychological constructs but reflect **measurable neuroendocrine and immunological alterations**.

4.2 Autonomic Nervous System Imbalance

The **Autonomic Nervous System (ANS)** plays a crucial role in maintaining homeostasis through its two primary branches: the **sympathetic nervous system (SNS)**, responsible for "fight-or-flight" responses, and the **parasympathetic nervous system (PNS)**, which facilitates rest, recovery, and restoration.

During the COVID-19 pandemic, persistent uncertainty, health-related fears, and increased caregiving burdens contributed to **prolonged sympathetic activation** in women. This heightened state of physiological arousal is characterized by increased heart rate, muscle tension, and hypervigilance. Simultaneously, reduced parasympathetic activity impaired the body's capacity for recovery and regulation.

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This imbalance has significant psychosomatic implications. Chronic sympathetic dominance is associated with **sleep disturbances, gastrointestinal dysfunction, cardiovascular strain, and musculoskeletal pain**. Moreover, reduced vagal tone—a marker of parasympathetic activity—has been linked to impaired emotional regulation and increased vulnerability to stress-related disorders.

When the ANS remains dysregulated over extended periods, the body is unable to return to a state of equilibrium, leading to the persistence and amplification of psychosomatic symptoms. Thus, ANS imbalance provides a critical physiological pathway through which psychological stress is translated into bodily distress.

4.3 Emotional Suppression and Somatic Encoding

Emotion regulation plays a central role in the development and maintenance of psychosomatic symptoms. Sociocultural norms often encourage women to prioritize relational harmony and emotional containment, leading to the suppression of negative emotions such as anger, fear, and distress.

During the pandemic, conditions such as **social isolation, increased domestic responsibilities, and reduced access to support systems** further constrained opportunities for emotional expression. This created an environment in which emotional experiences were intensified but lacked adequate channels for processing and release.

Theoretical frameworks of **somatic encoding** suggest that when emotions cannot be cognitively articulated or socially communicated, they are expressed through bodily sensations and symptoms. This process reflects the integration of emotional and physiological systems, where unresolved psychological distress manifests as physical discomfort.

Such mechanisms help explain the increased prevalence of **medically unexplained symptoms** among women during the pandemic, including headaches, fatigue, gastrointestinal issues, and generalized pain. Rather than indicating pathology in isolation, these symptoms represent **embodied expressions of unprocessed emotional experiences**, highlighting the interconnected nature of mind and body.

5. FEMINIST INTERPRETATIONS OF PANDEMIC-INDUCED PSYCHOSOMATISM

Feminist perspectives provide a critical lens through which psychosomatic experiences can be understood beyond purely biomedical frameworks. Historically, women's health complaints have often been dismissed, trivialized, or attributed to psychological instability, reinforcing patterns of **diagnostic bias and gender-based stigma**.

During the COVID-19 pandemic, these patterns risked re-emergence, as women's increased burden of caregiving, emotional labour, and professional responsibilities was frequently normalized rather than problematized. Feminist psychosomatic theory challenges this normalization by framing women's bodily distress as a reflection of **structural and systemic inequities** rather than individual weakness.

From this perspective, psychosomatic symptoms are conceptualized as **embodied social suffering**. Women's bodies become sites where the cumulative effects of unpaid labour, economic vulnerability, and emotional responsibility are internalized and expressed. This interpretation shifts the focus from individual pathology to **social determinants of health**, emphasizing the role of gendered expectations and institutional inequalities.

Recognizing psychosomatism as a socio-political phenomenon has important implications for healthcare practice. It calls for a move away from dismissive or reductionist interpretations and toward a more **holistic, gender-sensitive approach** that acknowledges the broader context of women's lived experiences.

6. LONG-TERM HEALTH CONSEQUENCES FOR WOMEN (EXPANDED ANALYSIS)

The psychosomatic impact of the COVID-19 pandemic extends far beyond the acute phase of infection and immediate psychological distress, manifesting in **persistent, multi-system health consequences**. Prolonged exposure to chronic stress, uncertainty, and role overload has contributed to sustained dysregulation across neuroendocrine, immune, and autonomic systems. Over time, this dysregulation increases vulnerability to chronic, stress-mediated conditions such as **Fibromyalgia**, **Irritable Bowel Syndrome (IBS)**, **Chronic Fatigue Syndrome (CFS)**, and various forms of **Cardiovascular Disease**.

These disorders are increasingly understood as **biopsychosocial conditions**, arising from the interaction of psychological stressors, neurological processing, and physiological responses. For instance, chronic stress can alter pain perception pathways, leading to central sensitization in fibromyalgia, while also disrupting gut-brain axis functioning in IBS. Similarly, sustained immune activation and mitochondrial dysfunction have been implicated in chronic fatigue syndrome,

linking psychological distress with measurable biological alterations.

Women are disproportionately affected by these conditions, reflecting both **biological susceptibility and socio-cultural determinants**. Hormonal influences, particularly fluctuations in estrogen, play a role in modulating immune responses, pain sensitivity, and stress reactivity. At the same time, gendered expectations—such as caregiving responsibilities and emotional labour—intensify exposure to chronic stressors. The pandemic amplified these dynamics, placing women at heightened risk for long-term psychosomatic morbidity.

A critical concern in the long-term trajectory of psychosomatic conditions is their **diagnostic complexity**. These disorders often lack clear biomarkers, leading to reliance on symptom-based diagnosis. As a result, women frequently encounter **diagnostic delays, misattribution of symptoms to psychological causes, or outright dismissal** within clinical settings. This not only prolongs suffering but also contributes to the progression and entrenchment of symptoms.

Chronic psychosomatic distress also leads to **repeated healthcare utilization**, often without definitive diagnosis or effective treatment. Patients may consult multiple specialists, undergo extensive investigations, and receive fragmented care. This cycle can result in:

- Increased financial burden
- Emotional exhaustion and frustration
- Perceived invalidation by healthcare providers
- Erosion of trust in medical systems

Such experiences are further compounded by **stigma associated with psychosomatic conditions**, where symptoms are perceived as less legitimate or exaggerated. This stigmatization reinforces barriers to care and discourages help-seeking behavior, particularly among women who may already internalize societal expectations of resilience and self-sacrifice.

Beyond individual health outcomes, the long-term consequences of pandemic-induced psychosomatism reveal **systemic gaps in healthcare delivery**. Current biomedical models often struggle to address conditions that do not fit neatly into discrete diagnostic categories. The fragmentation between mental and physical healthcare further limits the ability to provide comprehensive, patient-centered treatment.

From a public health perspective, the persistence of these conditions represents a **significant burden on healthcare systems**, with implications for workforce participation, productivity, and overall quality of life. For women, these impacts are particularly pronounced, contributing to widening gender disparities in both health and socio-economic outcomes.
In sum, the long-term health consequences of COVID-19-related psychosomatic stress highlight the need for:

- Early identification and intervention
- Integrated biopsychosocial care models
- Gender-sensitive diagnostic and treatment frameworks
- Greater recognition of psychosomatic conditions as legitimate and complex health concerns

Addressing these dimensions is essential not only for improving individual health outcomes but also for strengthening the responsiveness and equity of healthcare systems in the post-pandemic era.

7. IMPLICATIONS FOR CLINICAL PRACTICE AND POLICY

The findings of this theoretical exploration underscore the need for **integrated and gender-responsive healthcare systems** that recognize the interplay between psychological and physiological processes.

From a clinical perspective, there is a need to move beyond the traditional **mind–body dualism** that separates mental and physical health. Healthcare providers should adopt a **biopsychosocial approach**, incorporating psychological assessment into routine medical evaluations. Training programs must equip clinicians to identify and validate psychosomatic symptoms, ensuring that patients receive comprehensive and empathetic care.

Screening tools for stress, trauma, and emotional distress should be integrated into primary care settings, particularly for populations at higher risk, such as women during and after large-scale crises. Interdisciplinary collaboration between physicians, psychologists, and social workers can further enhance treatment outcomes.

At the policy level, interventions must address the **structural determinants of stress** that disproportionately affect women. These include:

- Unequal distribution of caregiving responsibilities
- Limited workplace flexibility
- Economic insecurity

- Barriers to accessing mental health services

Policies aimed at improving **work-life balance, social protection, and mental health infrastructure** are essential to mitigating psychosomatic distress at a population level. Without addressing these systemic factors, psychosomatic symptoms will continue to function as indicators of unresolved social inequities.

8. CONCLUSION

The COVID-19 pandemic has illuminated the intricate and often underexplored relationship between psychological stress and physiological health, particularly among women. This theoretical exploration demonstrates that psychosomatic manifestations during the pandemic are not incidental but are deeply rooted in **psychoneurobiological mechanisms, socio-cultural expectations, and structural inequalities**.

The dysregulation of systems such as the **Hypothalamic–Pituitary–Adrenal Axis** and the **Autonomic Nervous System** highlights how chronic stress becomes biologically embedded, producing tangible health outcomes. Simultaneously, processes such as emotional suppression and somatic encoding underscore the role of psychological and social constraints in shaping bodily experiences. These findings reinforce the notion that psychosomatic symptoms represent a legitimate intersection of mind and body rather than a dichotomous separation.

From a broader perspective, feminist interpretations emphasize that women's psychosomatic distress during the pandemic must be understood as **embodied expressions of systemic inequities**, including disproportionate caregiving burdens, emotional labour, and limited institutional support. The normalization of these stressors risks perpetuating cycles of neglect and misdiagnosis within healthcare systems.

The long-term implications of pandemic-induced psychosomatism are substantial, with increased vulnerability to chronic health conditions and persistent disparities in healthcare access and outcomes. Addressing these challenges requires a paradigm shift toward **integrated, gender-sensitive, and biopsychosocial models of care** that recognize the complexity of psychosomatic experiences.

Ultimately, this research underscores the need to move beyond reductionist frameworks and toward a more holistic understanding of health—one that acknowledges the interplay of biological, psychological, and social determinants. By doing so, healthcare systems and policymakers can better respond to the enduring impact of global crises on women's health and well-being.

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