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Analysis of Depression in Married Women: A Quantitative Exploration of PHQ-9 Responses on Neuropathogenesis

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Abstract

Depression is a growing issue among married women that is often influenced by social, emotional, and psychological factors. This study used a quantitative survey-based technique to investigate how prevalent and severe depression symptoms are in Andhra Pradesh. Data was collected from 62 married women who participated using the PHQ-9 questionnaire. The majority of individuals reported suffering fatigue, apathy towards previously loved activities, and sleep disturbances. However, deeper problems like self-criticism and failure feelings came to the surface. A small yet concerning proportion of women reported thoughts of suicide, despite the rarity of significant psychomotor abnormalities. These findings highlight the need of social support, timely treatment, and mental health awareness. Married women in similar sociocultural circumstances will benefit substantially from counselling services and targeted health efforts that address these difficulties.

Keywords; Depression, Married Women, Mental Health, PHQ-9, Psychological Well-being, Expertise Escape

INTRODUCTION

Depression is one of the most prevalent mental health issues affecting individuals worldwide because married women face several challenges in their social, familial, and personal life (Mavric et al., 2017). Although many individuals rely on their spouses for emotional support, a variety of socioeconomic and interpersonal issues may contribute to marriage-related stress, anxiety, and melancholy. To truly understand the roots and effects of depression in this group, a detailed exploration of the intricacies of mental health issues among married women is essential.

The Patient Health Questionnaire-9 (PHQ-9) is a popular tool for measuring the severity of depression. It evaluates basic symptoms such as cognitive impairments, tiredness, loss of interest, and persistent dissatisfaction. This research aims to quantify the frequency and severity of depression symptoms in married women and investigate potential neuropathogenic variables that exacerbate their mental health issues, using the Patient Health Questionnaire-9 (PHQ-9) as a gold standard. (Yang et al., 2023). The pressures of modern life, including the expectation to excel in multiple roles, can lead to the "Expertise Escape," where women pursue expertise and perfection in various areas to gain recognition and value, exacerbating mental health issues. This phenomenon highlights the need to explore the intricacies of mental health issues among married women, particularly in the context of sociocultural pressures and role expectations.

Recent findings indicate that alterations in neurotransmitter activity, hormonal imbalances, and inflammatory responses are neurobiological aspects associated with depression, suggesting it is not only a psychological condition (Thomas, 2020).

Married women, especially those with a lot of responsibilities, may be under more stress physically, which can cause or make these changes in the brain that cause disease worse. Thus, by exploring PHQ-9 responses through the lens of neuropathogenesis, this study seeks to bridge the gap between clinical psychology and neuroscience.

Given that married women are still influenced by societal norms and traditional gender roles, it is important to determine if these outside variables exacerbate mental health issues. Policymakers, healthcare professionals, and mental health practitioners may get valuable insights into the creation of customised treatments by comprehending the connection between biological reactions and psychosocial stressors.

Neuropathogenesis of Depression

Neuropathogenesis describes the biological processes that play a role in the development and advancement of depression (Abdullah et al., 2024). It encompasses imbalances in neurotransmitters, inflammation in the brain, alterations in brain structure, and disruptions in hormonal regulation. These processes may be triggered in married women by ongoing stress from marital disputes, role overload, or emotional neglect, making them more susceptible to depression.

Table 1 Factors influencing the neuropathogenesis of depression

Factor	Description	Impact on Depression
Neurotransmitter Imbalance	Deficiency in serotonin, dopamine, and norepinephrine.	Leads to low mood, loss of interest, and emotional instability.
Neuroinflammation	Chronic stress activates immune response, increasing cytokines.	Impairs brain function, worsening depressive symptoms.
Brain Structural Changes	Shrinkage in hippocampus and prefrontal cortex.	Affects memory, decision-making, and emotional regulation.
Hormonal Dysregulation	Excessive or insufficient cortisol due to chronic stress.	Causes anxiety, mood swings, and prolonged depressive episodes.

(Note: Table 1 clearly visualize the factors influencing the neuropathogenesis of depression.)

Understanding these biological processes aids in the development of tailored mental health therapies that address both the physiological and psychological elements of depression in married women.

Depression in Married Women

More and more psychological, social, and biological factors are making it more common for married women to be depressed, which is very scary. While marriage can offer emotional support, it can also introduce stress through conflicts, financial pressures, societal expectations, emotional distance, and a struggle to balance work and personal life (Lamiya et al., 2023). Women in traditional family structures often experience emotional burden and stress from caring for others, which may show up as symptoms like anxiety, fatigue, and persistent depression.

Chronic stress may cause nervous system changes and hormonal abnormalities. Elevated cortisol levels induced by chronic stress may lead to a disruption in neurotransmitter function, which can affect emotional control. A significant number of married women refrain from seeking mental health treatment due to the stigma and lack of understanding around mental illness. (Islam et al., 2016)

Addressing depression in married women requires psychological counselling, social support, and lifestyle changes (Wadood et al., 2023). Early detection and the nurturing of emotionally supportive environments can help lessen the potentially devastating effects on mental health.

Table 2 Major Factors Contributing to Depression in Married Women

Category	Factors	Impact on Mental Health
Psychological	Marital conflicts, emotional neglect, lack of communication	Leads to stress, sadness, and anxiety
Social	Societal expectations, gender roles, lack of support system	Increases pressure and isolation
Biological	Hormonal imbalance, high cortisol levels, neurotransmitter disruption	Affects mood regulation and mental stability
Economic	Financial instability, work-life imbalance, job stress	Causes worry, fatigue, and emotional exhaustion

(Note . Table 2 clearly visualize the biological, social and economic factors influencing the Depression.)

Literature reviews

(Fernandes et al., 2020) Two groups of married women from Belagavi city were studied: one group included 51 working women and the other group had 51 nonworking women. Using a proportional sample approach, individuals in North & South Belagavi were recruited, and depression was assessed using the Beck depression inventory scale. There was a larger prevalence of borderline (21.6%) and moderate (17.6%) depression among working women compared to nonworking women, although working women exhibited a higher prevalence of normal mood (58.8%) and mild (25.5%) depression. In married women suffering from depression, there was an association with age, number of children, and family type. There was a significant difference in the levels of borderline and moderate depression between working married women and nonworking women. The mental health of women has to be improved via raising awareness, implementing programs, developing strategies, and ensuring early diagnosis and treatment.

(Zinzuvadiya, 2021) The purpose of the study was to compare married and single women with regard to their mental health and the prevalence of depression. A total of 80 data points were chosen using a basic random method for this purpose. A mental health assessment developed by D. J. Bhatt and Miss Gida, as well as the Gujarati version of the Back Depression assessment (BDI, 1996), were used for this purpose. Here, the researchers used a t-test to see if there was a statistically significant difference between mental health and depression. There was a statistically significant difference between married and single women in terms of mental health and depression prevalence.

(T Rashid, 2014) The study found that western nations and Pakistan had different approaches to depression. The research found that married women who work had greater challenges in their lives, including higher rates of despair, compared to married women who do not work. When their spouses or in-laws fail to provide for their most fundamental necessities, these women often feel forced to seek other means of financial assistance. Along with their husbands and children, women are also responsible for taking care of their in-laws when they live in a joint household. In certain ways, it finds, working married women just can't make a dent in providing for their families. Working in two different contexts caused their focus to wander. Depression sets in because they are unable to give their married life the care they need.

(Osman et al., 2022) Depression symptoms were reported by 30.2% of the participants in the research. Depressive symptoms were shown to be more common among married women who had husbands who were older, heavier, from certain sorts of extended families, who had experienced verbal abuse from their spouses, and who reported poor levels of marital satisfaction.

(Patel et al., 2024) The research did corroborate the pre-existing notion that adolescent pregnancies are linked to an increased risk of depression, notwithstanding the difficulties in determining causality. Depression is more common among adolescent moms who experience dowry-related maltreatment, menstruation disorders, violence, or unfavourable pregnancy outcomes. The results highlight the critical necessity to treat young moms' depression immediately, as mental health is often disregarded, particularly among teenagers.

RESEARCH METHODOLOGY

Research Model

This study employed a quantitative survey method to assess depressive symptoms in married women from Andhra Pradesh.

Research Sample

The study used purposive sampling to select 62 married women from Andhra Pradesh as respondents.

Data Collection Tool and Procedure

The Patient Health Questionnaire-9 (PHQ-9) was used to collect data. The PHQ-9 is a standardized tool that evaluates the occurrence of depressive symptoms over the last two weeks using a 4-point Likert scale (0 to 3). Structured questionnaires were used to collect data, and descriptive statistics were employed to analyze the data and identify trends and external influences affecting the mental health of married women in the region.

Table 3 Summary of Research Methodology

Component	Details
Area of Study	Andhra Pradesh
Research Design	Quantitative, survey-based study
Sampling Method	Purposive sampling
Sample Size	62 married women
Data Collection Tool	PHQ-9 Questionnaire
Measurement Scale	4-point Likert scale (0 to 3)
Data Analysis	Descriptive statistics

Data analysis and interpretation

This section shares the insights gathered from the data to uncover patterns and trends concerning depressive symptoms among married women in Andhra Pradesh. The

answers from the PHQ-9 questionnaire were carefully reviewed to evaluate how common and intense depression is. Statistical techniques were used to interpret the findings, offering insights into the emotional and psychological well-being of the respondents. The examination centres on crucial signs like waning interest, exhaustion, sleep issues, self-image, and thoughts of self-harm, emphasizing aspects that need care for mental health support.

Table 4 Questionnaire based on PHQ-9

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at all	Sometimes	Often	Nearly all the time
Little Interest or Pleasure in Doing Things	7	32	13	10
Feeling down, depressed, or hopeless	24	35	1	2
Trouble falling or staying asleep, or sleeping too much	28	23	7	4
Feeling tired or having little energy	10	39	9	4
Poor appetite or overeating	31	23	6	2
Feeling bad about yourself or that you are a failure or have let yourself or your family down	35	19	5	3
Trouble concentrating on things, such as reading the newspaper or watching television	36	20	3	3
Moving or speaking so slowly that other people could have noticed? Or the opposite-being so fidgety or restless that you have been moving around a lot more than usual	48	11	2	1
Thoughts that you would be better off dead or of hurting yourself in some way *(Note. The above table 4 illustrates the interpretation results of PHQ-9 Questionnaire)*	51	8	1	2

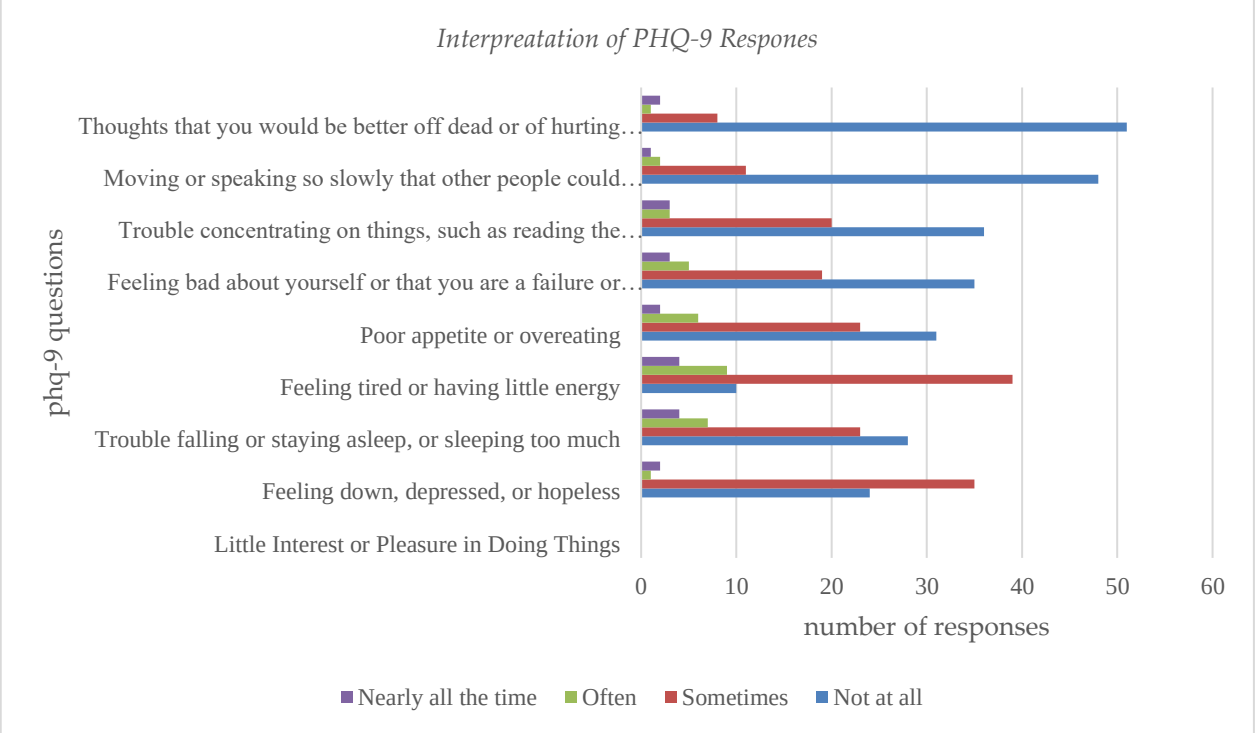

Figure 1 (Clustered bar representation of PHQ-9 Responses)

(Note. The clustered bar chart illustrates the distribution of responses for each PHQ-9 depression symptom. The y-axis represents the different symptoms assessed in the PHQ-9 questionnaire, while the x-axis indicates the number of respondents selecting each frequency category. Responses range from "Not at all" to "Nearly all the time", reflecting the severity of each symptom among participants.)

FINDINGS

Interpretation of PHQ-9 Responses

The PHQ-9 questionnaire revealed valuable insights into the frequency and intensity of depressed symptoms among married women in Andhra Pradesh. A significant majority of respondents reported experiencing anhedonia, characterized by a loss of interest or pleasure in activities. While some respondents reported feeling this way sometimes, others experienced it more frequently, with 10 respondents indicating they felt this way almost always.

(Note. The pie chart represents the distribution of responses regarding suicidal thoughts among participants. The largest portion, 71.8%, reported having no suicidal thoughts ("Not at all"), while 12.7% were categorized as Unknown. A smaller percentage reported experiencing suicidal thoughts sometimes (11.3%), often (1.4%), or nearly all the time (2.8%). The visualization highlights the necessity of further mental health interventions for individuals reporting frequent suicidal thoughts.)

Depressed mood was also a common experience, with 35 respondents reporting feelings of despair or hopelessness, although only three reported severe symptoms. Sleep disturbances were prevalent, but not severe, with most respondents reporting occasional disruptions. Fatigue and low energy were significant issues, with 39 respondents reporting feeling tired from time to time, and 13 experiencing regular exhaustion.

Table 5 Descriptive Statistics

Categories	Count	mean	Standard deviation	Minimum	25%	50%	75%	max
Not at all	9	30	14.98332406	7	24	31	36	51
Sometimes	9	23.33333333	10.45227248	8	19	23	32	39
Often	9	5.222222222	4.024232156	1	2	5	7	13
Nearly all the time	9	3.444444444	2.65099562	1	2	3	4	10

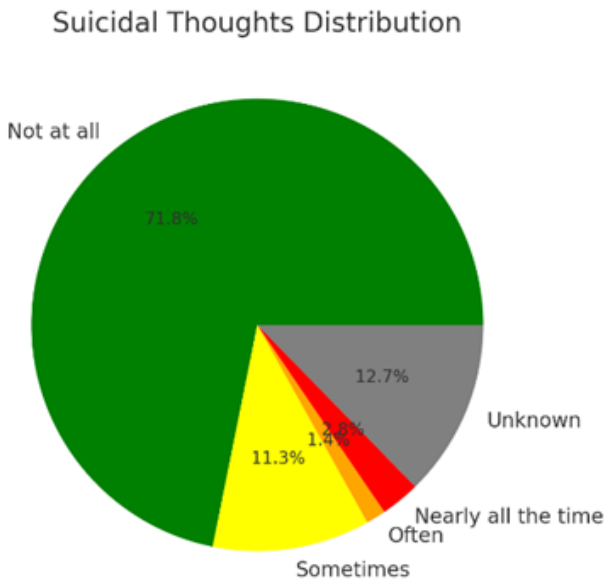

Figure 2 Suicidal Thoughts Distribution

Note (Table 5 presents the descriptive statistics for different response categories. The table includes the count, mean, standard deviation, and distribution percentiles (minimum, 25th percentile, median, 75th percentile, and maximum). The "Not at all" category has the highest mean value (30), indicating a predominant response, while "Nearly all the time" has the lowest mean (3.44), suggesting it is the least frequent response. The standard deviation values highlight the variability in responses, with "Not at all" showing the greatest dispersion.)

Appetite changes were also reported, with eight respondents indicating regular or continuous changes. Self-criticism and feelings of failure were notable concerns, with 27 respondents expressing varied degrees of poor self-perception. Concentration issues were moderately impacted, with 26 respondents experiencing some level of difficulty.

Fortunately, psychomotor changes were uncommon, with only four respondents reporting significant slowness or restlessness. However, suicidal thoughts were a significant concern, with 11 respondents reporting experiencing such

thoughts, highlighting the need for further investigation and potential action.

The PHQ-9 scores ranged from 9 to 31, reflecting varying degrees of depression among the respondents. Overall, the findings provide a glimpse into the mental health status of married women in Andhra Pradesh, highlighting the need for support and intervention.

Mild Depression (Score: 5-9): A limited subset of participants (2 women) is represented in this category, indicating a low prevalence of depressive symptoms.

Moderate Depression (Score: 10-14): A significant number of participants (26 women) fall within this range, suggesting ongoing yet controllable symptoms.

Moderately Severe Depression (Score: 15-19): A notable segment of participants (27 women) is represented in this category, indicating an elevated degree of distress that could necessitate intervention.

Severe Depression (Score: 20+): A subset of participants (7 women) demonstrates notably elevated scores, with several surpassing 25, indicating significant depressive symptoms that necessitate prompt mental health intervention.

DISCUSSIONS AND CONCLUSIONS

The intensity of depression can differ among individuals, yet this research highlights it as a significant issue for married women in Andhra Pradesh. Many respondents reported a decline in mental health, noting a lack of interest in activities, persistent tiredness, and difficulties with sleep. There were also feelings of not being enough and harsh self-judgment, suggesting that many women bear an emotional burden beneath the surface.

This emotional burden is further exacerbated by the internalization of societal expectations, leading to the "Expertise Escape." Women feel pressured to pursue expertise and perfection in multiple areas, including domestic work, caregiving, and personal development. This internalized pressure can lead to feelings of guilt, anxiety, and inadequacy, ultimately contributing to the decline in mental health. The findings of this study suggest that while some women might experience mild to moderate depression, others may require urgent psychological support and social connections to prevent a decline in their mental well-being. However, the internalization of societal expectations and the pressure to conform to modern life's changing demands can make it difficult for women to openly acknowledge and accept their depression. The findings support the "Expertise Escape" concept, showing that while most women experience mild to moderate depressive symptoms, a smaller subset faces persistent distress due to internalized societal pressures. The high variability in fatigue, self-criticism, and feelings of failure suggests that the burden of perfectionism contributes to emotional exhaustion. This silent struggle makes it harder for women to acknowledge their mental health needs, emphasizing the urgency for psychological support and social intervention.

The rapid changes in modern life, including the blurring of boundaries between work and personal life, the rise of social media, and the increasing expectations for women to be perfect caregivers, workers, and individuals, can exacerbate the emotional burden on women. The Expertise Escape phenomenon highlights the need for women to redefine success and prioritize their mental well-being. Encouraging mental health screenings, educational programs, and support from qualified professionals should be prioritized in addressing this issue. Moreover, it is crucial to promote a more holistic definition of success that recognizes the value of domestic work, caregiving, and personal development, and to challenge the internalized societal expectations that perpetuate the Expertise Escape. By doing so, we can enhance the mental well-being of married women and support their overall empowerment.

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