



The Relationship Between Gender, Income Level, and Depression Amongst Adults: A Statistical Analysis

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Abstract This study examines the relationship between gender, income levels, and depression among adults in Hyderabad. Using a cross-sectional design, data were collected from 200 adults to assess depression levels through the Beck Depression Inventory (BDI) and socio-demographic variables via structured questionnaires. Chi-square tests were conducted to analyze the association between gender, income levels, and depression. The findings revealed no statistically significant relationship between either gender or income levels and depression among adults. These results suggest that while socio-demographic factors are often linked to mental health outcomes, their direct impact on depression may be moderated by other variables such as social support and coping mechanisms. The study contributes to the ongoing discourse on the multifaceted nature of depression and highlights the need for further research incorporating additional psychosocial factors.

Keywords: depression, gender, income level, socio-demographic factors, mental health

Introduction Depression is a pervasive mental health condition affecting millions worldwide, with significant implications for individuals' well-being and societal productivity. While numerous factors contribute to the development and persistence of depressive symptoms, socio-demographic variables such as gender and income level are frequently cited as key determinants (World Health Organization, 2020). Gender disparities in depression have been extensively documented, with women generally exhibiting higher rates of depression compared to men (Salk, Hyde, & Abramson, 2017). Similarly, income inequality has been implicated in the prevalence of depression, with lower-income individuals often experiencing heightened vulnerability to mental health disorders (Platt, Prins, Bates, & Keyes, 2016). This study seeks to explore the relationship between gender, income level, and depression among adults, providing a statistical interpretation of their interconnections.

The primary objective of this study is to examine the relationship between gender, income levels, and depression among adults. Specifically, the study aims to determine whether gender and income levels significantly influence depression levels.

Hypotheses

- **H1:** There is a significant relationship between gender and depression levels among adults.
- **H2:** There is a significant relationship between income levels and depression levels among adults.

Review of Literature Existing literature underscores the complex interplay between gender, income, and depression. Salk et al. (2017) conducted a meta-analysis examining gender differences in depression, revealing that while adolescent females exhibit significantly higher rates of depression, this gap tends to stabilize in adulthood. Contrarily, the Centers for Disease Control and Prevention (CDC, 2017) reported higher depression prevalence among women across all age groups, with the disparity diminishing as income levels increase.

Income inequality has also been linked to depression prevalence. Platt et al. (2016) reviewed 26 studies and found a consistent association between greater income inequality and higher depression rates, particularly in high-income countries. Furthermore, research by the American Psychiatric Association (2016) highlighted the mental health implications of the gender pay gap, indicating that women earning less than their male counterparts had significantly higher odds of experiencing depression.

While these studies provide valuable insights, the direct relationship between gender, income levels, and depression remains inconclusive, necessitating further exploration.

Methodology A quantitative, cross-sectional research design was employed to investigate the relationship between gender, income levels, and depression among adults. A sample of 200 adults was selected, ensuring representation across various income brackets and gender identities. Depression levels were assessed using the Beck Depression Inventory (BDI), a validated psychometric tool. Socio-demographic data, including gender and monthly income, were collected through structured questionnaires. Chi-square tests were conducted to determine the association between gender, income levels, and depression. The significance level was set at $p < 0.05$.



Results and Interpretation

1. Table I - Gender and Depression

Gender	Mild Depression	Moderate Depression	Total
Male	24 (24.0%)	76 (76.0%)	100 (100%)
Female	15 (15.0%)	85 (85.0%)	100 (100%)
Total	39 (19.5%)	161 (80.5%)	200 (100%)

Chi-square test results: **Pearson Chi-Square** = 2.580, $df = 1$, $p = .108$

Interpretation: The analysis revealed no statistically significant association between gender and depression levels ($p > 0.05$). While males exhibited a higher percentage of mild depression (24%) compared to females (15%), this difference was not statistically significant.

Table II- Income Level and Depression

Income Level	Mild Depression	Moderate Depression	Total
≤ Rs 15,000	19 (19.2%)	80 (80.8%)	99 (100%)
> Rs 15,000	20 (19.8%)	81 (80.2%)	101 (100%)
Total	39 (19.5%)	161 (80.5%)	200 (100%)

Chi-square test results: **Pearson Chi-Square** = 0.012, $df = 1$, $p = .913$

Interpretation: No significant relationship was found between income levels and depression ($p > 0.05$). Both income groups exhibited similar distributions of mild and moderate depression, indicating that income does not significantly influence depression levels among the sampled adults.

Discussion The findings of this study indicate that neither gender nor income level significantly impacts depression levels among adults. These results contrast with some prior research suggesting higher depression rates among women and lower-income individuals (Salk et al., 2017; Platt et al., 2016). One possible explanation for the divergence could be the influence of mediating variables such as social support, coping strategies, and access to mental health resources, which were not directly assessed in this study.

The absence of a significant relationship between income and depression may also reflect the role of relative income perception rather than absolute income levels. Additionally, the cross-sectional design limits causal interpretations, suggesting the need for longitudinal studies to better understand these relationships over time.

Conclusion Based on the results, both **Hypothesis 1 (H1)** and **Hypothesis 2 (H2)** are **rejected**. The statistical analysis showed no significant relationship between gender and depression levels, nor between income levels and depression levels among adults. These findings underscore the complexity of depression, suggesting that socio-demographic factors alone do not sufficiently account for variations in depression.

Recommendations

1. Future Research: Longitudinal studies incorporating a broader range of socio-demographic and psychosocial variables could provide a more comprehensive understanding of the factors influencing depression.

2. Policy Implications: Mental health interventions should adopt a multifaceted approach, addressing not only economic disparities but also promoting social support and resilience-building programs.

3. Gender-Specific Strategies: While gender was not a significant factor in this study, gender-sensitive mental health services may still be beneficial given the broader literature indicating gender differences in mental health experiences.

References

1. American Psychiatric Association. (2016). Gender pay gap contributes to increased rates of depression and anxiety among women. *Workplace Mental Health*. Retrieved from <https://www.workplacementalhealth.org>
2. Centers for Disease Control and Prevention. (2017). Prevalence of depression among adults aged 20 and over: United States, 2013–2016. *National Center for Health Statistics Data Brief*, (303), 1–8. Retrieved from <https://www.cdc.gov>
3. Platt, M., Prins, S., Bates, L., & Keyes, K. (2016). Unequal depression for equal work? How the wage gap explains gendered disparities in mood disorders. *Social Science & Medicine*, 149, 1-8. <https://doi.org/10.1016/j.socscimed.2015.11.056>



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4. Salk, R. H., Hyde, J. S., & Abramson, L. Y. (2017). Gender differences in depression in representative national samples: Meta-analyses of diagnoses and symptoms. *Psychological Bulletin*, 143(8), 783–822. <https://doi.org/10.1037/bul0000102>
 5. World Health Organization. (2020). Depression. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/depression>