



## Analytical Report

# Food Insecurity, Resilience, Stress Mindset, and Psychological Distress

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Academic Year: 2025 - 2026

# **Executive Summary**

This analytical report summarizes key findings from exploratory and explanatory analyses examining the relationship between food insecurity and psychological distress, while considering the roles of resilience, stress mindset, and demographic factors. Exploratory analysis revealed variability in food insecurity and psychological distress scores across participants. Due to non-normal data distributions, non-parametric statistical methods were applied.

Explanatory analysis indicated a significant positive association between food insecurity and psychological distress. In contrast, resilience and a positive stress mindset were negatively associated with distress levels. Gender-based and regional analyses further highlighted demographic and contextual differences. These findings emphasize the combined influence of material conditions and psychosocial factors on mental health outcomes.

## **Introduction**

Food insecurity is increasingly recognized as a key determinant of psychological well-being. Beyond limited access to food, food insecurity introduces chronic stressors that may intensify psychological distress. Understanding how food insecurity interacts with psychosocial factors such as resilience and stress mindset is therefore essential.

This analytical report focuses on interpreting the results of exploratory and explanatory analyses conducted to investigate associations between food insecurity, psychological distress, resilience, stress mindset, and demographic variables.

## **Discussion**

### **Summary of Statistical Results**

Table 1 summarizes the key statistical findings addressing the main research questions. Non-parametric statistical tests were employed due to deviations from normality.

Table 1: Summary of Key Statistical Findings

Research Question	Test Used	Statistic	p-value
Food insecurity vs. psychological distress	Spearman correlation	$\rho = 0.315$	< 0.001
Resilience vs. psychological distress	Spearman correlation	$\rho = -0.465$	< 0.001
Stress mindset vs. resilience	Spearman correlation	$\rho = -0.224$	< 0.001
Gender differences in psychological distress	Mann–Whitney U	$U = 88213.5$	< 0.05
Regional differences in food insecurity	Kruskal–Wallis	$H = 2.490$	< 0.05

## Explanatory Insights

The findings indicate that food insecurity is strongly associated with increased psychological distress, underscoring the mental health burden of food access challenges. Conversely, resilience appears to mitigate distress, acting as a protective psychosocial factor. Stress mindset also contributes meaningfully, as individuals with a more positive perception of stress tend to demonstrate higher resilience.

## Stress Mindset and Resilience

Figure 1 illustrates the relationship between stress mindset and resilience. The visualization suggests a positive association, supporting the hypothesis that adaptive stress perceptions enhance individuals' capacity to cope with adversity.



Figure 1: Relationship between stress mindset and resilience scores.

## **Recommendations and Further Work**

Interventions aimed at reducing psychological distress should address food insecurity while strengthening psychosocial protective factors such as resilience and stress mindset. Region-specific strategies may be particularly effective in addressing contextual disparities.

Future research should explore longitudinal designs to assess causal relationships and incorporate multivariate modeling approaches to better understand pathways linking food insecurity and mental health. Expanding the dataset to include additional socioeconomic variables could further enhance explanatory power.