Bivariate Correlation Analysis (Stress & Happiness)

1. Opening the Dataset

The dataset was opened in SPSS using the following path:

File → Open → Data

The dataset contains questionnaire-based measurements related to stress and happiness levels.

2. Identification of Measurement Items

Stress Measurement Scale:
S1, S2, S3, S4, S5

Happiness Measurement Scale:
H1, H2, H3

All items were measured using Likert-type scales and treated as continuous variables for statistical analysis.

3. Computing the Stress Mean Score (SMean)

To represent stress as a single composite variable, a mean score was calculated.

Transform → Compute Variable
Target Variable: SMean
Numeric Expression:
MEAN(S1, S2, S3, S4, S5)

4. Computing the Happiness Mean Score (HMean)

Transform → Compute Variable
Target Variable: HMean
Numeric Expression:
MEAN(H1, H2, H3)

5. Conducting Bivariate Correlation Analysis

Analyze → Correlate → Bivariate

Variables selected:
- SMean
- HMean

Correlation Coefficient: Pearson
Test of Significance: Two-tailed
Flag significant correlations: Enabled

6. Interpretation of Results

The Pearson correlation coefficient (r) indicates the strength and direction of the relationship between stress and happiness.

$r < 0$ indicates a negative relationship (higher stress → lower happiness)
$r > 0$ indicates a positive relationship
$p < 0.05$ indicates statistical significance

Example Interpretation:
A Pearson bivariate correlation analysis revealed a statistically significant negative relationship between stress (SMean) and happiness (HMean).

7. Conclusion

The analysis demonstrates that stress and happiness are significantly related. Using composite mean scores improves measurement reliability and interpretability.