Correlations

The correlation tells you the magnitude and direction of the association between two variables.

```
CORRELATIONS
  /VARIABLES=happy sexfreq age
  /PRINT=TWOTAIL NOSIG
  /MISSING=PAIRWISE .
```

Correlations

		GENERAL HAPPINESS	FREQUENCY OF SEX DURING LAST YEAR	AGE OF RESPONDENT
GENERAL HAPPINESS	Pearson Correlation	1	-.105**	-.045
	Sig. (2-tailed)	.	.001	.094
	N	1369	1060	1362
FREQUENCY OF SEX DURING LAST YEAR	Pearson Correlation	-.105**	1	-.437**
	Sig. (2-tailed)	.001	.	.000
	N	1060	2151	2143
AGE OF RESPONDENT	Pearson Correlation	-.045	-.437**	1
	Sig. (2-tailed)	.094	.000	.
	N	1362	2143	2751

**. Correlation is significant at the 0.01 level (2-tailed).

This cell represents the correlation (and significance and sample size) between age and general happiness. The top value (-.045) is the correlation coefficient. The middle value (.094) is the significance level. The bottom value (1362) is the number of cases. In this example, the correlation is not significant at the $p < .05$ level.

Here is the correlation between age of respondent and frequency of sex. The correlation coefficient is -.437 (and is significant). This suggests a negative correlation with moderate magnitude. As age increases, the frequency of sex decreases. The correlation between age and frequency of sex is -.437. If we square this value, we get .190969, or 19.1 out of 100, or 19.1 percent. From this we can claim that roughly 19.1% of the variation in frequency of sex is attributed to respondent's age.

Note

The following general categories indicate a quick way of interpreting correlations.

0.0 – 0.2	Very weak correlation
0.2 – 0.4	Weak correlation
0.4 – 0.7	Moderate correlation
0.7 – 0.9	Strong correlation
0.9 – 1.0	Very strong correlation