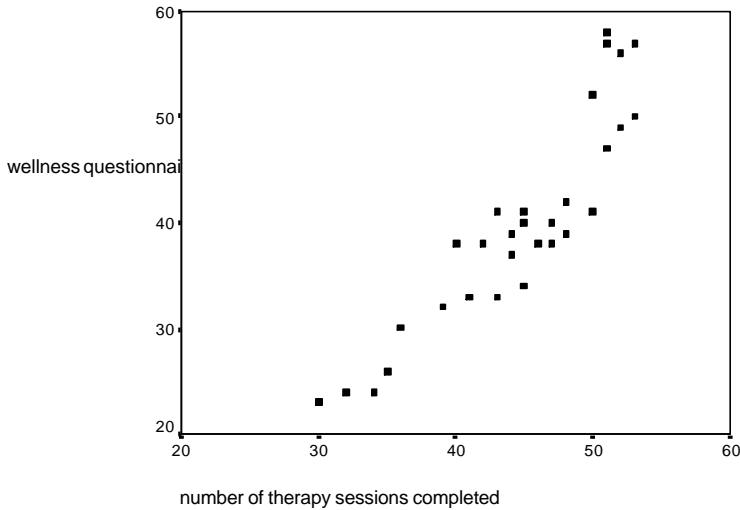


## Practice with Correlation -- Answers

We collected three quantitative variables from each patient: 1) their score from a wellness questionnaire, 2) their age, and 3) the number of therapy sessions completed with their current therapist.

It is always a good practice to examine the scatterplot before completing any correlation analysis. Here are the scatterplots showing the relationship of age and number of sessions with wellness scores.



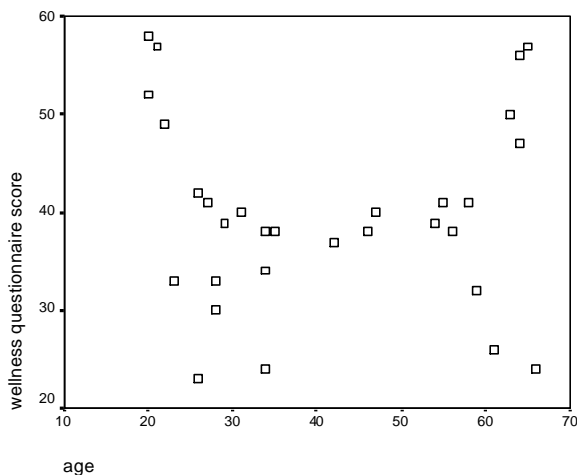
Does this scatterplot show an essentially linear relationship between these variables?

**Yes**

Would it be reasonable to apply Pearson's correlation to summarize the direction and strength of this linear relationship?

**Yes**

What is the "direction" of the linear relationship? **+**



Does this scatterplot show an essentially linear relationship between these variables?

**Oh, my no!!!!**

Would it be reasonable to apply Pearson's correlation to summarize the direction and strength of this linear relationship?

**No**

Here's the output from the correlation analysis of wellness and number of therapy sessions with the current therapist.

Correlations		wellness questionnaire score	number of therapy sessions completed
wellness questionnaire score	Pearson Correlation	1	.908**
	Sig. (2-tailed)	.	.000
	N	30	30
number of therapy sessions completed	Pearson Correlation	.908**	1
	Sig. (2-tailed)	.000	.
	N	30	30

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

Is there a significant linear relationship between the number of therapy sessions and psychological wellness?

**Yes -- p < .05**

What is the "direction" of the relationship? **+**

What is the "strength" of the relationship? **.91**

Describe that linear relationship?

**Those with more therapy sessions tend to have higher wellness scores.**