Reliability and Validity Analysis:
Relationship Pleasure Scale (RPS)

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Reliability and Validity Analysis

A Reliability and Validity Analysis was conducted in order to determine if the PAIRS Foundation's Relationship Pleasure Scale ("RPS") Total scale was measuring the aspects of relationship pleasure consistently across individuals and across multiple time periods (Pre-Test, Post-Test, 6-Month and 12-Month follow-up). Cronbach's alpha was computed for the RPS Total scale at each time period.

Time Period	Alpha	N
Pre Test	.871	2974
Post Test	.880	879
6 months	.873	1022
12 Months	.872	811

It is important to note that published tests generally have reliabilities above .70. All of the alpha coefficients for the RPS are *well* above .70, and even approach .90. This indicates that the RPS is a reliable tool.

Validity Analysis

If reliability assesses how consistently a tool measures a construct, validity assess how accurately a tool measures a construct. There are several ways of determining if a measure is valid. The basic level of validity is *face* validity in which an examination of the items reveals that it is asking relevant information for the scale. This is often disregarded (though it should not be in many cases) because of a lack of "statistical rigor." Upon examination of the items of the RPS scale (e.g. "How well is your relationship meeting your needs in shared interest/activities you do together") it seems to have sufficient face validity.

Another important way it to check measurements against an accepted and established tool (viz. reliability and validity) that measures something closely related. This is called *convergent validity* and the Dyadic Adjustment Scale ("DAS") is a perfect measure to compare the RPS against. Correlational analyses are used to show the strength of the relationship between the two measures.

First, individuals who had data from pre-test, 6-month and 12-month RPS and DAS scores (n= 195) were compared.

	Pre RPS Total	6 Month RPS Total	12 Month RPS Total
Pre DAS Total	.751	.598	.463
6 Months DAS Total	.505	.792	.473
12 Months DAS Total	.430	.639	.737

Note: All correlations were statistically significant ($p. < .001$).

Then, to increase the number of participants, individuals that had pre- and 6-month DAS and RPS scores were selected ($n = 778$).

	Pre RPS Total	6 Month RPS Total
Pre DAS Total	.777	.564
6 Months DAS Total	.514	.776

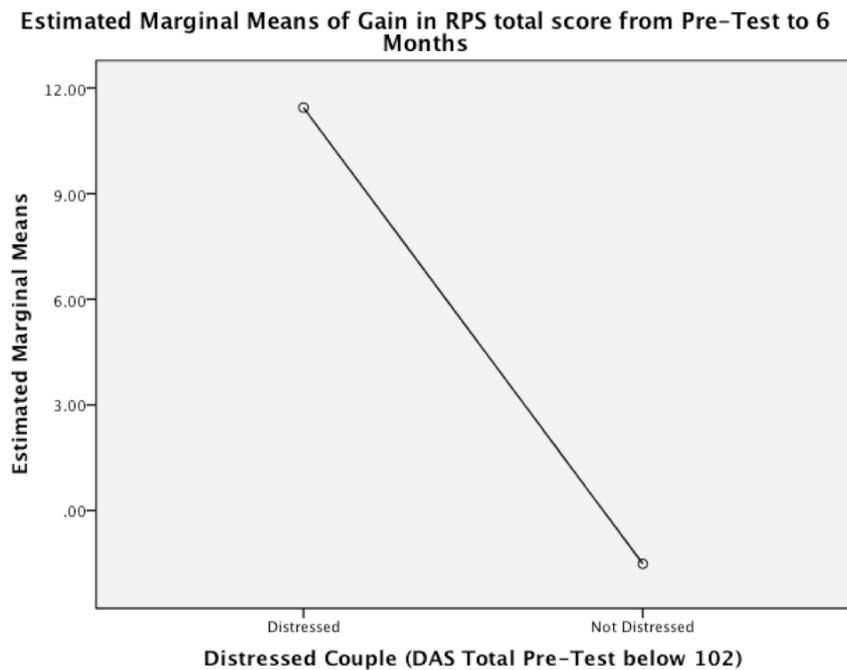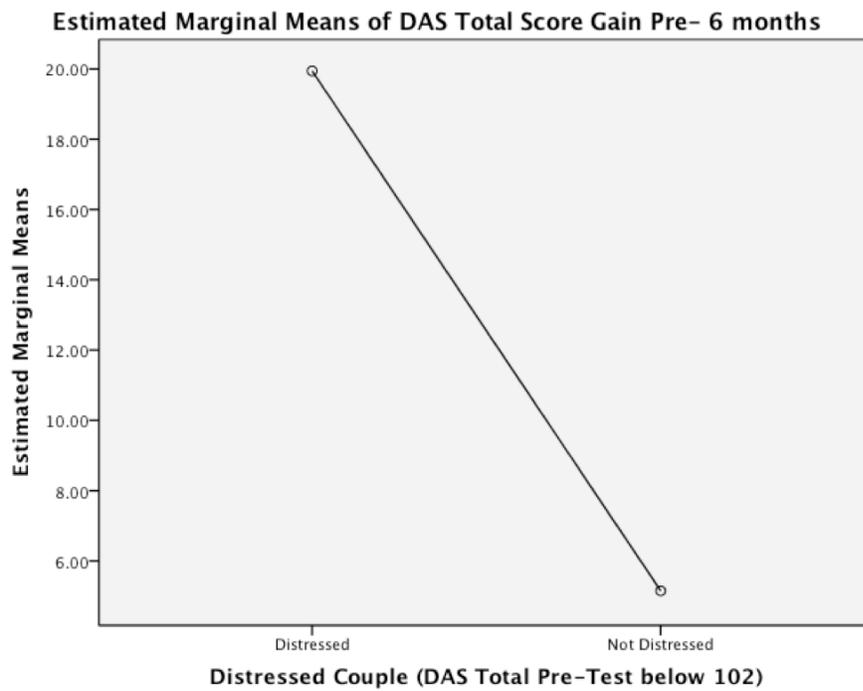*Note:* All correlations were statistically significant.

This indicates, with a sizeable number of participants, that the RPS Total scale is psychometrically reliable and valid. Additional validity tests can be carried out (discriminant validity, etc.) to further establish the measure on its own. Many of the additional analyses performed here can be used to further this.

Distressed vs. Non-Distressed Couples

How do distressed participants fare, compared to non-distressed participants, pre-test to 6 months after completing a 9-hour PAIRS class? Was there a significant difference in their improvement?

A comparison of Distressed and Non-Distressed clients (assigned using DAS cutoff score of 102) was made using a MANOVA. Significant differences were found in the gain scores (pre-test to 6 month follow-up) of both DAS and RPS.

	Distressed	Non-Distressed	$F (1, 776)$	*p.*
Mean DAS Gain Scores	19.94	5.15	158.93	.001
Mean RPS Gain Scores	11.44	-1.51	85.53	.001

Estimated Marginal Means of DAS Total Score Gain Pre– 6 months

Estimated Marginal Means of Gain in RPS total score from Pre–Test to 6 Months

People who were distressed had significantly higher gain scores six months after (compared to pre-test) than participants who were *not* distressed. Meaning that PAIRS works very well for participants, *especially people who need it the most* (high distressed).