

# Writing APA Style Results

*t*-tests

## Example from lecture...

- Independent sample *t*-test with unequal group sizes
  - Self-injury scale scores as DV
  - Psychotherapy vs. control as IV

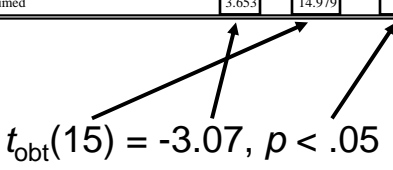
Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
ctrl	6	11.00	16.00	13.8333	2.13698
tx	11	2.00	17.00	8.4545	3.93354
Valid N (listwise)	6				

## Example from lecture...

- After conducting the test we found:

Independent Samples Test							
Levene's Test for Equality of Variances				t-test for Equality of Means			
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Self-Injurious Behavior Equal variances assumed	.714	.411	3.080	15	.008	5.37879	1.74614
Equal variances not assumed			3.653	14.979	.002	5.37879	1.47232

$t_{\text{obt}}(15) = -3.07, p < .05$



## Guidelines for APA Style

1. Identify reason for analysis
2. Identify analysis
3. Report results
4. Report effect sizes
5. Report means and standard deviations
6. Report main effects followed by *post hocs*
7. Do NOT interpret the results

## Identify reason for analysis

- In order to test the efficacy of the new psychotherapy intervention for self-injury...
- As a test of the hypothesis that a new psychotherapy will reduce the frequency of self-harm...
- In order to compare scores between the experimental and control group on the SIB variable...

## Identify analysis

- ...an independent samples *t*-test was conducted.

## Report results

- This test was found to be statistically significant,  $t(15) = -3.07, p < .05...$ 
  - If non-significant say “was found to be statistically non-significant...” or “did not reach statistical significance.”
  - NOTE: the  $t$  statistic is *italicized*. Statistics are italicized in APA style... unless the statistic is a Greek letter...then it's not...

## Report effect sizes

- ... $t(15) = -3.07, p < .05; d = 1.56$ .
- The effect size for this analysis ( $d = 1.56$ ) was found to exceed Cohen's (1988) convention for a large effect ( $d = .80$ ).

## Report means and standard deviations

- These results indicate that individuals in the experimental psychotherapy group ( $M = 8.45$ ,  $SD = 3.93$ ) experienced fewer episodes of self-injury following treatment than did individuals in the control group ( $M = 13.83$ ,  $SD = 2.14$ ).

## Independent Samples t-test Results

- In order to test the efficacy of the new psychotherapy intervention for self-injury, an independent samples  $t$ -test was conducted. This test was found to be statistically significant,  $t(15) = -3.07$ ,  $p < .05$ ;  $d = 1.56$ . The effect size for this analysis ( $d = 1.56$ ) was found to exceed Cohen's (1988) convention for a large effect ( $d = .80$ ). These results indicate that individuals in the experimental psychotherapy group ( $M = 8.45$ ,  $SD = 3.93$ ) experienced fewer episodes of self-injury following treatment than did individuals in the control group ( $M = 13.83$ ,  $SD = 2.14$ ).

## Variations

- Report seriously violated assumptions (before reporting the  $t$  statistic)
  - Levene's test for equality of variances was found to be violated for the present analysis,  $F(1,15) = .71, p = .41$ . Owing to this violated assumption, a  $t$  statistic not assuming homogeneity of variance was computed.
    - df for Levene's test =  $(k-1, N-k)$

## Variations

- Modify to fit your own writing style...
  - Professional
  - Conveys important information

## Things that will annoy me...

- WRONG: This was found...
- RIGHT: This test was found...
  
- WRONG: These results prove...
- RIGHT: These results suggest (indicate, illustrate, etc.)...
  
- WRONG: Interpreting the results...
- RIGHT: Coldly, dispassionately, reporting the results...