Type: Assignments

Subject: statistics. (SPSS) t-test

Subject area: Nursing

Education Level: PhD Program

Length: 2 pages

Referencing style: APA

Preferred English: US English

Spacing Option: Double

Title: t-test

Instructions: please answer these questions : part 1 through analysis of the data answer the questions below with your findings from this t-test. 1. how many women were employed versus not employed in the sample? 2. what is the total sample size? 3. what are the mean and standard deviation for the ces-d scores for each group? 4. interpret the levene's statistic. (hint: is the assumption of homogeneity of variance met? are equal variances assumed or not assumed?) why? 5. what is the value of the t-statistic, number of degrees of freedom and the p-value? 6. does the data support the hypothesis? why or why not? part 2 questions : through analysis of the data and answer the questions below for the findings from this t-test. 1. what is the total sample size? 2. what are the mean and the standard deviation of the ces-d scores at wave 1 and wave 2? 3. what is the mean difference between the two time periods? 4. what is the value of the t-statistic, number of degrees of freedom and the p-value(sig)? 5. does the data support the hypothesis? why or why not? part iii questions. assignment: create a table to present your results, use the table 6.3 in chapter 6 in your book as a model. write one or two paragraphs explaining and summarizing your results. do not submit the spss output that

Focus:

Structure: assignment 3: t tests and anova this week, you explore key statistical concepts related to data and problem solving through the completion of the following exercises using spss and the information found in your statistics and data analysis for nursing research textbook. the focus of this assignment is to become familiar with the spss data

analysis software, and to develop an understanding of how to calculate and summarize inferential statistics using t tests and anova. to prepare: review the statistics and data analysis for nursing research chapters that you read as a part of the week 5 learning resources. as you do so, pay close attention to the examples presented—they provide information that will be useful for you to recall when completing the software exercises. you may also wish to review the research methods for evidence-based practice video resources. refer to the week 5 t test exercises and follow the directions to perform a t test (i've done this for you pls check attachments) download and save the polit2setc.sav data set. you will open the data file in spss (i've done this) compare your data output against the tables presented in the week 5 t test exercises spss output. formulate an initial interpretation of the meaning or implication of your calculations. to complete: complete the part i, part ii, and part iii steps and assignments as outlined in the week 5 t test exercises page.

Important notes: good afternoon sir/maam. basically i have done the other half of this assignment by encoding the instructions to the spss. all i need from you as help is to answer those questions . pls message me if you have any issues. thanks.

SPSS Analysis

Name

Institution

1. how many women were employed versus not employed in the sample?

There were 524 women who were not employed as compared to 436 who were employed

2. what is the total sample size?

The total sample size is 960

3. what are the mean and standard deviation for the ces-d scores for each group?

The mean and standard deviation for the ces-d scores for employed women were 20.8965 and 12.46425 respectively. The mean and standard deviation for the ces-d scores for unemployed women were 15.8239 and 10.13655 respectively

4. interpret the levene's statistic. (hint: is the assumption of homogeneity of variance met? are equal variances assumed or not assumed?) why?

The levene's statistic evaluates the homogeneity of variance. The results demonstrate that the probability of the F value (sig) is 0.000 hence less than 0.05. The results therefore demonstrate that the variances in the groups being compared are different, and the condition of homogeneity of variance has not been satisfied. Equal variances are therefore not assumed.

5. what is the value of the t-statistic, number of degrees of freedom and the p-value?

The t-statistic is 6.954, degrees of freedom are 957.514 and the p-value 0.00

6. does the data support the hypothesis? why or why not?

The results shows a t value of 6.954 for the equal variance not assumed and a p-value of 0.005. The t-value is greater than the p-value hence we reject the null hypothesis and conclude that women who are working do not have a lower level of depression as compared to women who are not working

part 2

1. what is the total sample size?

The total sample size is 314.

2. what are the mean and the standard deviation of the ces-d scores at wave 1 and wave 2?

The mean and standard deviation of the ces-d scores are 18.5516 and 11.87462 respectively for wave 1 and 17.8344 and 11.49908 respectively for wave 2.

3. what is the mean difference between the two time periods?

The mean difference between the two time periods is 0.7172

4. what is the value of the t-statistic, number of degrees of freedom and the p-value(sig)?

The t-statistic is 0.709, the number of degrees of freedom is 156 and the p-value is 0.480

5. does the data support the hypothesis? why or why not?

The t-value is greater than the p-value hence we reject the null hypothesis and conclude that there is significant difference between the two time periods.

Part III

		Levene's Test for equality of variance							95% confidence interval of the difference	
		F	sig	t	df	sig	Mean difference	Std Error	Lower	Upper
CES-D Score	Equal variance assumed	.228	.633	3.340	926	0.01	2.54776	.76278	1.050078	4.04474
	Equal variances not assumed			3.342	925.265	0.01	2.54776	.76243	1.05146	4.04406
SF 12: Physical Health Component Score, standard	Equal variance assumed	1.106	.293	-3.076	859	.002	-2.241671	.728649	-3.671812	-.811529
	Equal variances not assumed			-3.075	855.772	.002	-2.241671	.728927	-3.672364	-.810977
SF 12: Mental Health Component Score, standardized	Equal variance assumed	.174	.677	-2.420	859	.016	-1.781113	.736103	-3.225884	-.336341
	Equal variances			-2.421	858.441	.016	-1.78113	.735800	-3.225290	-.336936

	not assumed									

The levene's statistic evaluates the homogeneity of variance. The results demonstrate that the probability of the F values (sig) are .633, .293 and .677 for CES-D Score, SF 12: Physical Health Component Score, standard and SF 12: Mental Health Component Score, standardized respectively. The significant values are 0.01, 0.02 and 0.016 respectively. The f-values are greater than the significance levels hence demonstrating that the variances in the groups being compared are not different hence the condition of homogeneity are satisfied. Equal variances are therefore assumed. The t-value for CES-D Score is therefore 3.34, and degrees of freedom 926. The t-value for SF 12: Physical Health Component Score, standard is -3.076 and degrees of freedom 859. The t-value for SF 12: Mental Health Component Score, standardized is -2.420 and degrees of freedom 859.

The t-value for CES-D Score is greater than its p-value hence we reject the null hypothesis and conclude that there is no difference between No high school diploma and Diploma or GED. The t-value for SF 12: Physical Health Component Score, standard is less than its p-value hence we reject the null hypothesis and conclude that there is a difference between No high school diploma and Diploma or GED. The t-value for SF 12: Mental Health Component Score, standardized is less than its p-value hence we reject the null hypothesis and conclude that there is a difference between No high school diploma and Diploma or GED.