

Week 2 HW - SPSS

Thursday, August 18, 2022 12:01 PM

Question 1.

By analyzing through the frequencies, we can get these results back:

Statistics			
		Weight of case in kg	Age in Years
N	Valid	70	70
	Missing	0	0
Skewness		.362	.000
Std. Error of Skewness		.287	.287

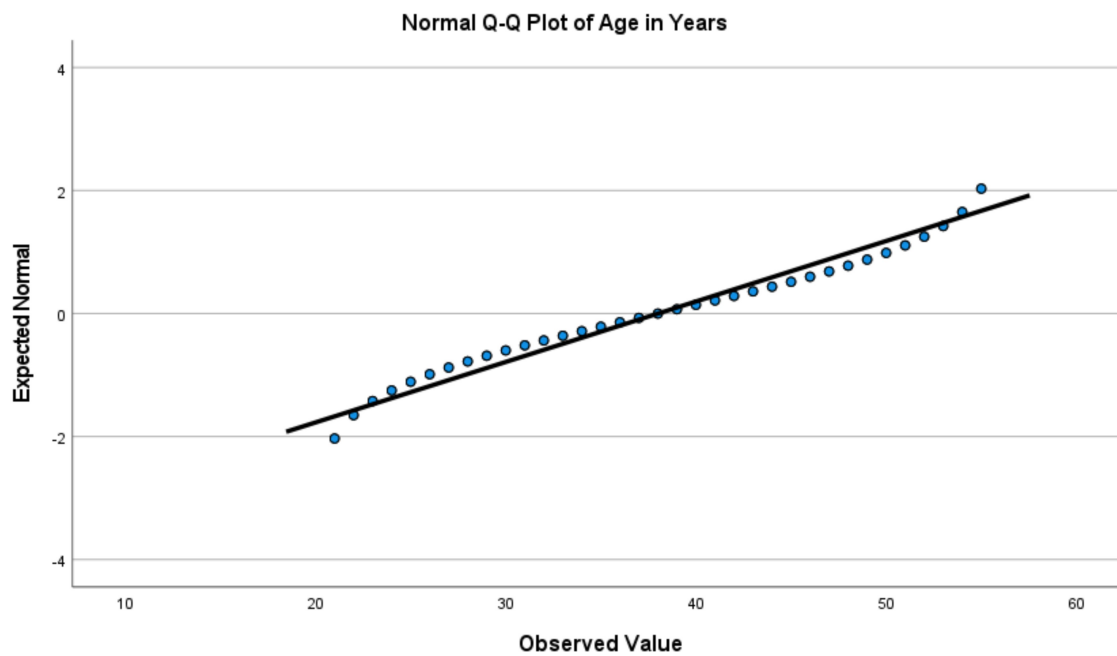
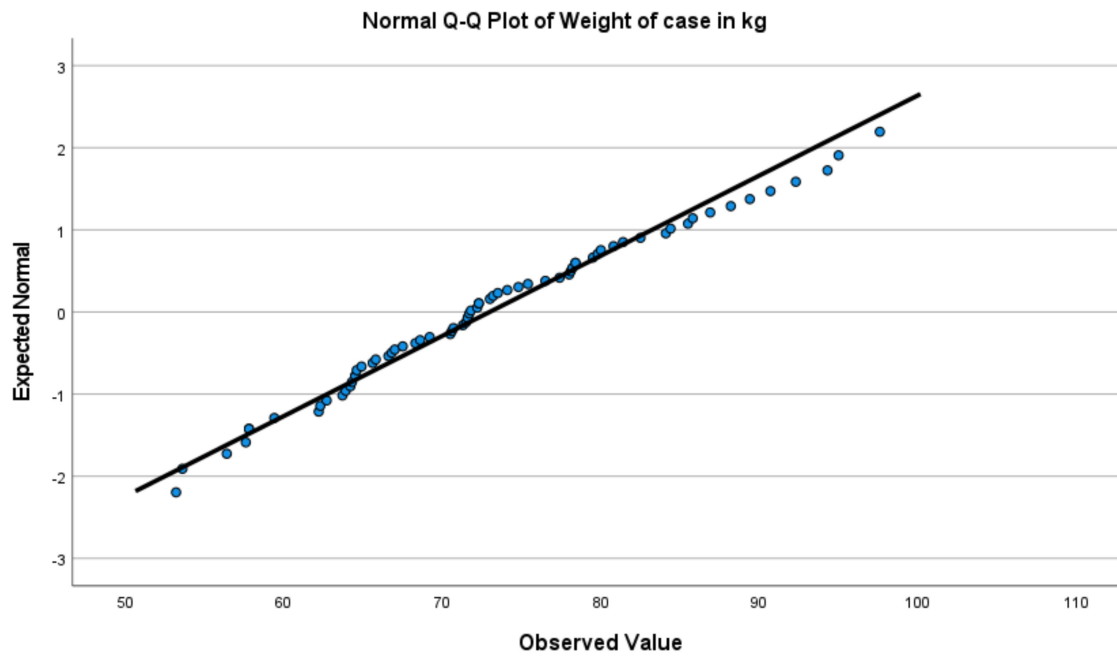
As they are both between $-1/2$ and $1/2$, we can say they are approximately symmetric.

Question 2.

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Weight of case in kg	.083	70	.200 [*]	.980	70	.335
Age in Years	.070	70	.200 [*]	.954	70	.011

*. This is a lower bound of the true significance.

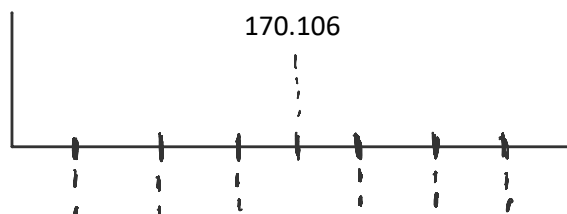
a. Lilliefors Significance Correction

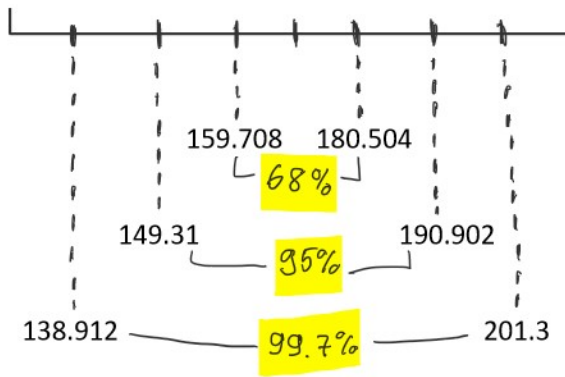


Question 3.

Mean - 170.106

Standart deviation - 10.398





Question 4.

A. Probability of height more than 1.70cm

$$X = 170$$

$$\text{Mean} = 170.106$$

$$\text{Std. dev} = 10.3985$$

$$X - \text{mean} / \text{std. dev} = 0.49601$$

$$1 - 0.49601 = 50.3\%$$

B. Probability of weight between 65 and 75kg.

$$X1 = 65$$

$$X2 = 75$$

$$\text{Mean} = 72.976$$

$$\text{Std. dev} = 10.2437$$

$$X1 - \text{mean} / \text{std. dev} = -0.778 = 22\%$$

$$X2 - \text{mean} / \text{std. dev} = 0.197 = 57.5\%$$

$$57.5 - 22 = 35.5\%$$

C. Probability of height less than 1.50cm.

$$X = 150$$

$$\text{Mean} = 170.106$$

$$\text{Std. dev} = 10.3985$$

$$X - \text{mean} / \text{std. dev} = -1.933 = 2.6\%$$

Question 5.

Descriptives

		Statistic	Std. Error
Weight of case in kg	Mean	72.976	1.2244
	95% Confidence Interval for Mean		
	Lower Bound	70.533	
	Upper Bound	75.418	
	5% Trimmed Mean	72.750	
	Median	71.750	
	Variance	104.933	
	Std. Deviation	10.2437	
	Minimum	53.2	
	Maximum	97.6	
	Range	44.4	
	Interquartile Range	14.8	
	Skewness	.362	.287
	Kurtosis	-.286	.566
Height of case in cm	Mean	170.106	1.2429
	95% Confidence Interval for Mean		
	Lower Bound	167.626	
	Upper Bound	172.585	
	5% Trimmed Mean	169.987	
	Median	170.100	
	Variance	108.129	
	Std. Deviation	10.3985	
	Minimum	150.7	
	Maximum	192.3	
	Range	41.6	
	Interquartile Range	16.8	
	Skewness	.140	.287
	Kurtosis	-.999	.566

Height of case:

Lower bound = 70.533

Upper bound = 75.418

Weight of case:

Lower bound = 167.626

Upper bound = 172.585

Question 6.

A. As novator and anxiety variables are continuous, we will use Pearson correlation.

Correlations

		novator	anxiety
novator	Pearson Correlation	1	.247**
	Sig. (2-tailed)		<.001
	N	1129	1129
anxiety	Pearson Correlation	.247**	1
	Sig. (2-tailed)	<.001	
	N	1129	1129

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

Sig < 0.001 means that there is significant relationship between variables. Coefficient 0.247 indicates that strength of correlation is weak.

B. As self control and novator variables are continuous, we will use Pearson correlation

Correlations

		selfcontrol	novator
selfcontrol	Pearson Correlation	1	-.566**

Correlations

		selfcontrol	novator
selfcontrol	Pearson Correlation	1	-.566**
	Sig. (2-tailed)		<.001
	N	1129	1129
novator	Pearson Correlation	-.566**	1
	Sig. (2-tailed)	<.001	
	N	1129	1129

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

Sig < 0.001 means that there is significant relationship between variables. Coefficient -0.566 indicates that strength of correlation is weak.

- C. As hire source and left company variables are categorical, we will use Chi-square.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.176	<.001
	Cramer's V	.176	<.001
N of Valid Cases		1129	

We can see that association between variables is strong(0.176). Since P-value is less than 0.05, there is significant relationship between them.

- D. As profession and left company variables are categorical, we will use Chi-square.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.199	<.001
	Cramer's V	.199	<.001
N of Valid Cases		1129	

We can see that association between variables is strong(0.199). Since P-value is less than 0.05, there is significant relationship between them.

- C. As industry and left company variables are categorical, we will use Chi-square.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.239	<.001
	Cramer's V	.239	<.001
N of Valid Cases		1129	

We can see that association between variables is strong(0.239). Since P-value is less than 0.05, there is significant relationship between them.

D. As tenure and age variables are continuous, we will use Pearson correlation.

Correlations

		tenure	age
tenure	Pearson Correlation	1	-.197**
	Sig. (2-tailed)		<.001
	N	1129	1129
age	Pearson Correlation	-.197**	1
	Sig. (2-tailed)	<.001	
	N	1129	1129

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

Sig < 0.001 means that there is significant relationship between variables. Coefficient -0.197 indicates that strength of correlation is weak.