



## Final assignment

Statistiek 1 (Vrije Universiteit Amsterdam)



Scannen om te openen op Studeersnel

## The Relation Between Self-esteem and Loneliness Within Female and Male

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### The Relation Between Self-esteem and Loneliness Within Female and Male

In this research we want to know if loneliness and self-esteem(self-concept) of students have a positive or a negative relationship. We expect that there will be a negative relationship. Our definition of the variables is that loneliness means the subjective feelings of loneliness as well as feelings of social isolation. Self-esteem(self-concept) means that there is a considerable individual variation in the way people regard themselves and appreciate themselves.

The following articles that we have been able to find, had also researched the relationship between loneliness and self-esteem(self-concept). In one research, results revealed that self-esteem and gender significantly predicted the experience of global loneliness, intimate loneliness and social loneliness(McWhirter, 1997). In another research, showed that loneliness moderated the association between self-esteem and life satisfaction. (Huo & Kong, 2014).

This research differs from circumstance with this research, but share the same belief that there is a relationship between self-esteem(self-concept) and loneliness. The second research, it revealed that students with learning disability compared with non-learning disability and non-low-achievement students were less accepted by peers, had lower self-esteem, and felt more lonely. Low-achievement students compared with non-learning disabilities and non-low-achievement students were less accepted by peers, had lower self-esteem, and were more depressed(ValÅs, 1999).

My hypothesis is that students with lower self-esteem(self-concept) have higher loneliness. Loneliness is the dependent variable and self-esteem(self-concept) is the independent variable. We also expect that between the two sexes students who experience loneliness, is larger within the female students than the male students.

### Methods

#### Participants

The sample consisted out of 250 students of Vrije Universiteit Amsterdam. After removing 7 students who filled out nothing 243 students were left, of which 243 students 29(11.9%) are male and 214(88.1%) are female. The range of age varies from 17 minimum and 55 maximum ( $M = 22.65$ ,  $SD = 5.27$ ).

The sample of 243 students, of which 55(22.6%) studied Psychology, 92(37.9%) studied PMC(pre-master) and 96(39.5%) studied Pedagogy.

From the students 49(20.2%) are in the International(English) track and 194(79.8%) are in the Dutch track.

The largest completed level of education was HBO (applied science bachelor/master) they were 39.5%. followed by VWO (pre-university), of which 37.9%. It follows by HBO-propadeuse (applied science propaedeutic), of which was 14.0%. Other level of education was 8.2%. The smallest completed level of education was WO (university), of which .4%.

### **Variables**

The questionnaire consists of 10 items. The list measures how someone thinks and feels about him- or herself: self-confidence. Students rate themselves on a seven-point Likert scale from "strongly disagree" (1) to "strongly agree." (7). Higher score represents a stronger level of self-confidence (Rosenberg, 2001).

UCS-8 Loneliness scale. This scale consists of 8 items. Students rate themselves on a six-point Likert scale: 1=Never, 2=Very rarely, 3=Rarely, 4=Occasionally, 5=Very frequently and 6=Always. A higher score represents more subjective feelings of loneliness as well as feelings of social isolation (Hays, 1987).

### **Procedure**

The participants were asked to fill in a questionnaire of questions online. It took approximately 20-25 minutes to complete the questionnaire. After the completion of the questionnaires. The prediction of self-esteem on loneliness was conducted by a linear regression analysis. An independent samples t-test was used to connect the sexes to loneliness.

### **Results**

My hypothesis is that students with lower self-esteem(self-concept) have higher loneliness. A linear regression predicted the relation of loneliness on self-esteem. Loneliness has a significant negative relationship with self-esteem(self-concept),  $b = -.50$ , 95% CI  $[-.58, -.43]$ ,  $t(239) = -13.17$ ,  $p < .001$  explains 42,1%. Loneliness of the variance of self-esteem(self-concept).

We also expect female students experience more loneliness than the male students. Females seems to experience loneliness more ( $M = 2.44$ ,  $SD = .88$ ) than the male students ( $M = 2.29$ ,  $SD = .75$ ). However, the independent samples t-test results:  $t(293) = -.863$ ,  $p = .389 > 0.05$ , 95% CI  $[-.48, .19]$  showed that the the significance level is higher than  $p = 0.05$ .

### **Discussion.**

The aim of the study was to discover if there was a relationship between loneliness and self-esteem(self-concept). The first hypothesis showed that there was a negative relationship between loneliness and self-esteem(self-concept). The second hypothesis results showed that we cannot support the hypothesis that female experience loneliness more than male. Due to the fact that the p-value is bigger than 0.05. Thus, we do not reject the null hypothesis.

The study consisted out of questionnaires that last about 20 to 25 minutes and it was completely anonymous. These factors made it possible for the participants to take the questionnaire rather quickly. It also gave the participants a sense of comfort to answer honestly.

A negative factor in the study is that it only regarded three studies: psychology, pedagogy and PMC(pre-master). It was not a good representation of the population we wanted to research, which was students from Vrije Universiteit Amsterdam. An additional critic is that the majority of the participants were female.

In future research, we recommend a more gender equal divided participants would make the research more reliable in regards of representation in gender. We also recommend that there would be more variety with studies of the participants.

### References

Huo, Y., & Kong, F. (2014). Moderating Effects of Gender and Loneliness on the Relationship Between Self-esteem and Life Satisfaction in Chinese University Students. *Social Indicators Research*, 118(1), 305-314, DOI: 10.1007/s11205-013-0404-x

ValÅs, H., (1999). Students With Learning Disabilities and Low-Achieving Students: Peer Acceptance, Loneliness, Self-Esteem, and Depression. *Social Psychology of Education*, 3(3), 173-192, DOI:10.1023/A:1009626828789

McWrither, B. T. (1997). Loneliness, Learned Resourcefulness, and Self-Esteem in College Students. *Journal of Counseling & Development*, 75, 460-469

Robins, R. W., Hendin, H. M., Trzesniewski, K. H. (2001). Measuring Global Self-Esteem: Construct Validation of a Single-Item Measure and the Rosenberg Self-Esteem Scale. *Society for Personality and Social Psychology*, 27(2), 151-161, <https://doi-org.vu-nl.idm.oclc.org/10.1177/0146167201272002>

Hays, R. D., & DiMatteo, M. R. (1987). A Short-Form Measure of Loneliness. *Journal of Personality Assessment*, 51(1), 69-81. DOI: 10.1207/s15327752jpa5101\_6

## SPSS Output

## Frequencies

Notwithstanding the validity issues with describing gender in a binary fashion, please indicate if you are a...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Man	29	11,9	11,9	11,9
	Woman	214	88,1	88,1	100,0
	Total	243	100,0	100,0	

## Descriptives

## Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
How old are you (years in whole numbers)?	243	17,00	55,00	22,6543	5,72473
Valid N (listwise)	243				

## Frequencies

## What is your study program?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Psychology	55	22,6	22,6	22,6
	Pedagogy	96	39,5	39,5	62,1
	PMC (pre-master)	92	37,9	37,9	100,0
	Total	243	100,0	100,0	

## Frequency Table

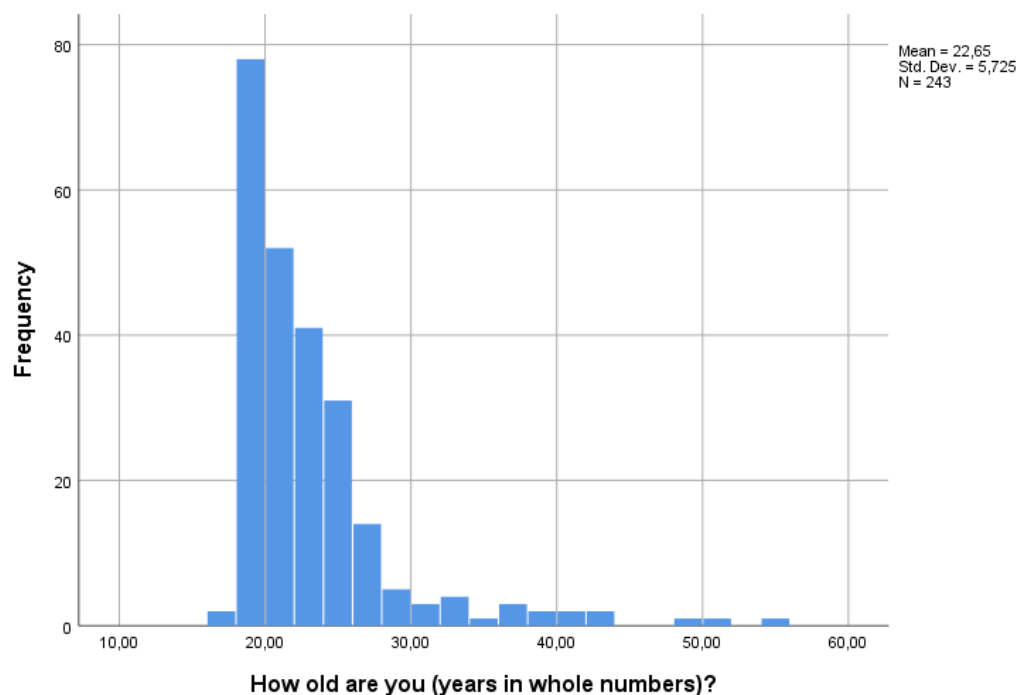
**What language track are you in?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Dutch	194	79,8	79,8	79,8
	International	49	20,2	20,2	100,0
	Total	243	100,0	100,0	

**What is your highest completed education? - Selected Choice**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	VWO	92	37,9	37,9	37,9
	HBO propedeuse	34	14,0	14,0	51,9
	HBO	96	39,5	39,5	91,4
	WO	1	,4	,4	91,8
	Other, specify	20	8,2	8,2	100,0
	Total	243	100,0	100,0	

## Graph





## Descriptives

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
How old are you (years in whole numbers)?	243	17,00	55,00	22,6543	5,72473
Valid N (listwise)	243				

## Regression

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,649 <sup>a</sup>	,421	,418	,65797

a. Predictors: (Constant), Rosenberg\_Self\_Esteem

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	75,114	1	75,114	173,500	,000 <sup>b</sup>
	Residual	103,470	239	,433		
	Total	178,584	240			

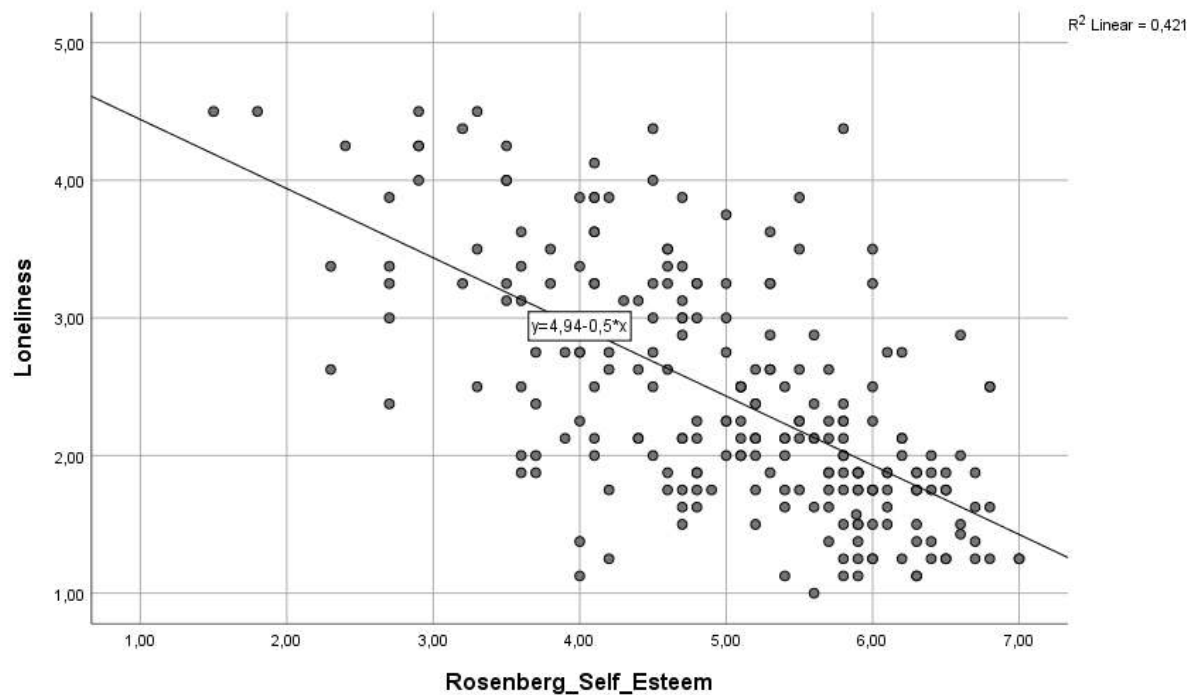
a. Dependent Variable: Loneliness

b. Predictors: (Constant), Rosenberg\_Self\_Esteem

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,945	,196		25,176	,000
	Rosenberg_Self_Esteem	-,503	,038	-,649	-13,172	,000

a. Dependent Variable: Loneliness

## Graph



## T-Test

### Group Statistics

<div> <div></div> <div>Notwithstanding the validity issues with describing gender in a binary fashion, please indicate if you are a...</div> </div>		N	Mean	Std. Deviation	Std. Error Mean
Loneliness	Man	29	2,2888	,74933	,13915
	Woman	212	2,4363	,87706	,06024

### Independent Samples Test

#### Levene's Test for Equality of Variances

		F	Sig.	t	df	Sig. (2-tailed)	Mean
Loneliness	Equal variances assumed	2,105	,148	-,863	239	,389	
	Equal variances not assumed			-,973	39,295	,337	

**Syntax**

```
DESCRIPTIVES VARIABLES=Age_in_years
/STATISTICS=MEAN STDDEV MIN MAX.
```

```
FREQUENCIES VARIABLES=Study_program
/ORDER=ANALYSIS.
```

```
FREQUENCIES VARIABLES=Language Previous_Education
/ORDER=ANALYSIS.
```

```
GRAPH
/HISTOGRAM=Age_in_years.
```

```
REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT Loneliness
/METHOD=ENTER Rosenberg_Self_Esteem.
```

```
GRAPH
/SCATTERPLOT(BIVAR)=Rosenberg_Self_Esteem WITH Loneliness
/MISSING=LISTWISE.
```

```
T-TEST GROUPS=Gender(1 2)
/MISSING=ANALYSIS
/VARIABLES=Loneliness
/CRITERIA=CI(.95).
```

\* Chart Builder.

```
GGRAPH
/GRAPHDATASET NAME="graphdataset" VARIABLES=Rosenberg_Self_Esteem
Loneliness MISSING=LISTWISE
REPORTMISSING=NO
/GRAPHSPEC SOURCE=INLINE
/FITLINE TOTAL=YES.
BEGIN GPL
SOURCE: s=userSource(id("graphdataset"))
DATA: Rosenberg_Self_Esteem=col(source(s), name("Rosenberg_Self_Esteem"))
DATA: Loneliness=col(source(s), name("Loneliness"))
```

```
GUIDE: axis(dim(1), label("Rosenberg_Self_Esteem"))
GUIDE: axis(dim(2), label("Loneliness"))
GUIDE: text.title(label("Simple Scatter with Fit Line of Loneliness by
Rosenberg_Self_Esteem"))
ELEMENT: point(position(Rosenberg_Self_Esteem*Loneliness))
END GPL.
```