

Does BMI category depend on sex?

Chi Square Test of Independence

Variable 1: BMI (normal, overweight, obese; ordinal)

Variable 2: sex (male, female; nominal)

$\chi^2(2, N= 280) = 6.53, p =.038$ *Significant relationship between BMI and sex*

Distribution of BMI within each sex

% of sample w/n sex	Normal BMI	Overweight BMI	Obese BMI
Men	55.9	28.4	15.7
Women	70.2	16.9	12.9

For both men and women, the majority of people had normal BMIs with much fewer people falling within the overweight and obese BMI categories. However, a far greater percentage of women were of normal BMI compared to their male counterparts.

I copied my SPSS output to word, hi-lighted the numbers I used, and then pasted the tables into the pptx

			BMI_group			Total
			normal BMI	overweight BMI	obese BMI	
sex	male	Count	57	29	16	102
		% within sex	55.9%	28.4%	15.7%	100.0%
		% within BMI_group	31.3%	49.2%	41.0%	36.4%
	female	Count	125	30	23	178
		% within sex	70.2%	16.9%	12.9%	100.0%
		% within BMI_group	68.7%	50.8%	59.0%	63.6%
Total		Count	182	59	39	280
		% within sex	65.0%	21.1%	13.9%	100.0%
		% within BMI_group	100.0%	100.0%	100.0%	100.0%

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.533 ^a	2	.038
Likelihood Ratio	6.424	2	.040
Linear-by-Linear Association	3.578	1	.059
N of Valid Cases	280		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.21.