Social Support and Change in Empathy in Undergraduate Pre-Health Students

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How Empathy is Affected in Undergraduate Pre-medical Students

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Introduction:

- The study of empathy in the medical profession is nothing new, many studies have pointed out how over time people in the medical fields lose empathy for their patients and other people around them.
- Studies also find that patients who see more empathy from their doctor tend to listen to them more. So it is clear that empathy helps doctors do their job so why are they losing it so frequently.
- Some of these studies point out the heavy workload and lower social support to impact empathy in the profession
- Most studies show this empathy problem showing up later in the education of a medical student, there isn't much data on the undergraduate population. That's where our study comes in. We are studying the empathy and what effects it in undergraduate pre-med students at Hope.

Expectations:

- The expectation for this study is that we may see some impact on empathy later in the waves as the students get further in their respective majors and classes.
- We expect empathy to be affected differently in some students such as first generational students.
- We also expect social support will also have a large impact on a students empathy level.

Methods:

- Using a longitudinal survey that was sent out to three different incoming freshman classes each class being referred to as a cohort. Another survey given to the same students after every year each year being a wave. The survey was modified a little between wave one and two. Currently the farthest group is cohort 1 who completed the wave 3 survey.
- The survey is sent out to the students that declare the pre-med track
- Currently there are 530 different students that have been surveyed
- Used the IRI empathy scale to measure the empathic concern in each student taking the survey.
- Additionally we have perspective taking, burnout, humility and boredom scales.

Type of Analysis:

- SPSS 26 was used to analyze the survey data.
- We used Excel to pool all the survey answers and then imported the pooled data into SPSS 26.
- Each question was given a unique ID to allow us to pool them together
- Each question also told us time so we could see changes in the variables over time.
- Using the tools in SPSS we were able to make the variable for empathy and the other scales.
- SPSS allowed for us to code in these variables and others using the syntax.
- In total there was 370 variables

Descriptive Statistics:

Descriptive Statistics

	N	Range	Mean	Std. Dev.
Empathy wave 1	462	0,21	27.80	4.24
Empathy wave 2	214	0, 20	27.98	4.18
Social support wave 1	476	4,11	12.89	2.23
Social support wave 2	218	3,12	13.12	2.19
First Generation	468	0,1	0.16	0.36
Social Support* First Gen	425	15.00	0.85	3.20
Gender variable	530	0,1	0.22	0.42
Burnout Wave 2	212	0,11	4.33	2.57
Boredom Wave 2	220	65, 105	82.34	7.94
Humility Wave 2	220	0,24	21.56	4.41
Nursing	240	1	0.17	0.37

Tables/Graph:

Empathy Over Time

	Empathy W1	Empathy W2	Empathy W3
N	462	214	92
Mean	27.80	27.98	27.95
Std. Deviation	4.24	4.18	4.17

Empathy by Gender Over Time

		Empathy W1	Empathy W2	Empathy W3
Female	Mean	28.46	28.36	28.50
	N	346	161	70
	Std. Deviation	4.01	3.96	3.92
Male	Mean	25.83	26.83	26.18
	N	116	53	22
	Std. Deviation	4.30	4.64	4.54

Social Support by Generational Status
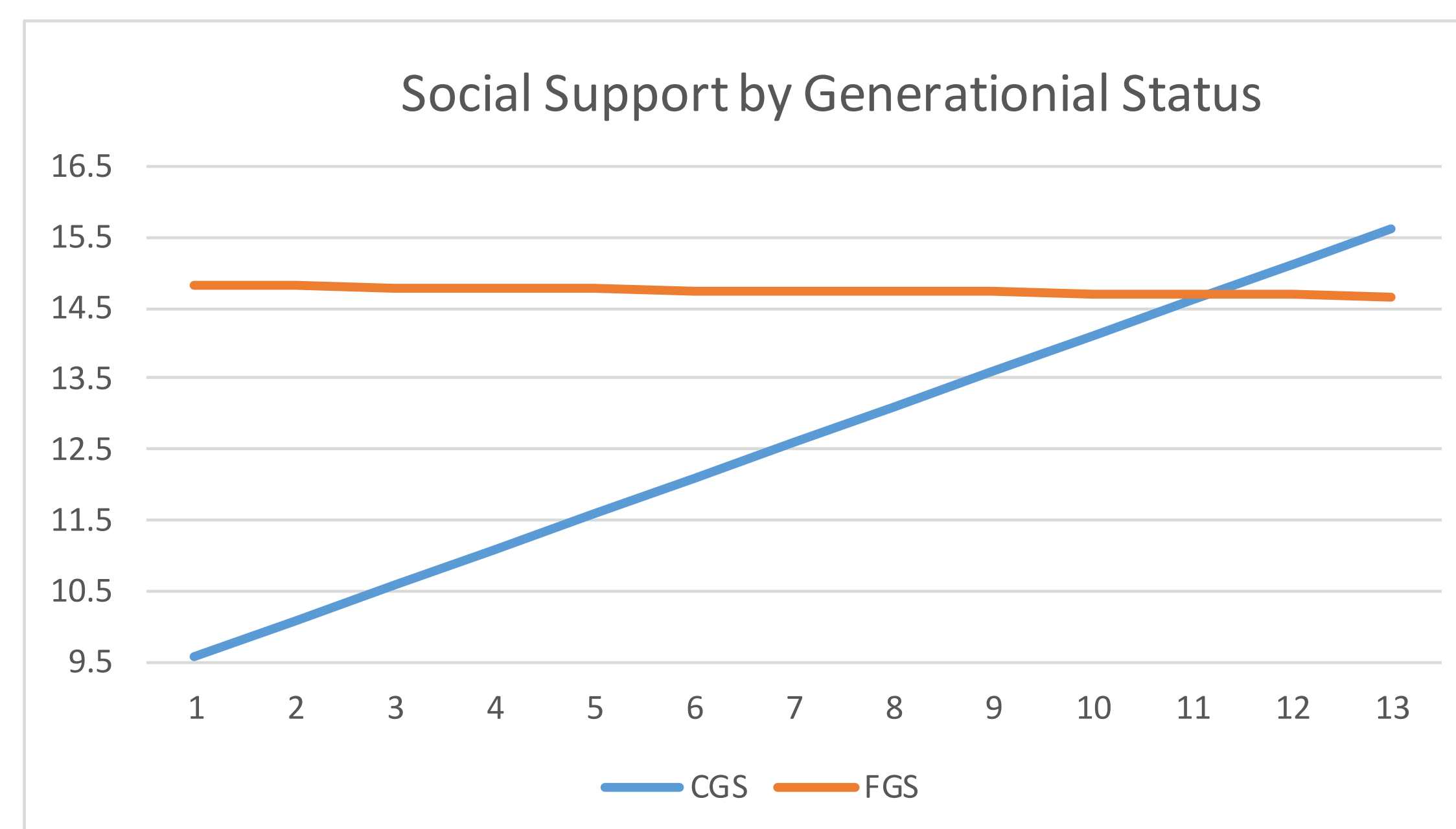
Results/Discussion:

- The results of the analysis that we have been finding show social support having a big effect on empathy which lines up with one of our expectations. This makes sense to me because if you think about it people who have more support around them can work through the stress of school easier.
- In the linear regression analysis below, you will find the key variables that we have found. We controlled for time by putting in empathy for wave 1
- The biggest effects on empathy according to our regression analysis are social support, first generation status, humility, and if they are nursing students or not.
- First generation status was found to have a direct correlation to social support. First generation students get effected by social support more then other students as seen is the interaction effect chart and since social support has a big effect on empathy it has a impact over time.
- Nursing students had a higher level of empathy across the board which a lines with most studies.
- A student's humility was the second most significant factor to empathy

Regression Analysis for Empathy Wave2

	b	Std. B
Constant	8.087 +	
Empathy Wave 1	0.332 ***	0.325
Social Support Wave 1	-0.141	-0.074
Social Support Wave 2	0.502 ***	0.263
First Generation	6.762 +	0.565
Social Support*First Gen	-0.514 +	-0.537
Gender	-0.501	-0.052
Boredom Wave 2	0.026	0.048
Covid	0.500	0.059
Nursing	1.734 *	0.147
Humility Wave 2	0.183 **	0.192
Burnout Wave 2	-0.003	-0.002
Church Attendence	-0.083	-0.043

Conclusions:

- Undergraduate students at Hope in the pre-med track do not start losing empathy however the data shows what factors lead to the decrease in empathy over time.
- The results from this study provide evidence that social support is so important to students especially in their early college experience

Limitations:

- Missing data resulting from participant attrition and failure of participants to respond to all questions on the surveys.
- For wave three our survey lost too many students for the wave to be useful in relationships as we had less then 100 students
- We didn't have a larger nurse population until wave 2
- Covid had an impact on the students for the year of quarantine and probably beyond that, we found a correlation that had covid raise the empathy in students