

Proposal of My Research

Data Management and Visualization assignment: Selecting a research question

I am majoring in Biomedical Engineering and my career goal is Biostatistician. I care about health situation a lot. Therefore, I choose the National Longitudinal Study of Adolescent Health (AddHealth) as my target dataset.

I would like to find out the effects of relationship with parents and the feelings on the health situation of the students between 10th and 12th grade. Following is the related variables I chose for analysis:

AID: respondent identifier

H1GH1-H1GH22, H1GH59A-H1GH60: how frequently the respondent feels uncomfortable and his/her height and weight

H1FS1-H1FS19: how the respondent feels

H1WP8-H1WP16: how close the respondent feels with his/her parents

Many variables are chosen, some of which may not be useful. I will select the most correlated variable during the next analysis.

AW1		H1WP8													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	AID	BIO_SEX	H1GI20	H1GH1	H1GH1A	H1GH2	H1GH3	H1GH4	H1GH5	H1GH6	H1GH7	H1GH8	H1GH9	H1GH10	H1GH11
2	57100270	2	97	3	7	1	1	2	0	0	1	3	0	1	2
3	57101310	2	11	4	7	2	1	3	1	1	2	4	0	1	4
4	57103171	1	10	4	7	1	0	1	0	0	1	0	0	1	1
5	57103869	1	12	4	7	1	4	1	0	2	1	3	3	1	2
6	57104553	2	12	3	7	1	2	0	0	0	1	3	0	0	1
7	57104649	1	7	3	7	1	0	1	0	0	0	4	1	0	4
8	57104676	1	7	4	7	0	2	0	0	1	1	1	0	0	4
9	57109625	1	8	1	7	1	1	1	1	0	1	1	0	1	3
10	57110897	1	8	2	7	1	0	1	0	0	3	1	0	0	1
11	57111071	1	8	2	0	2	0	2	0	1	3	1	0	1	3
12	57111786	1	9	1	0	0	0	0	0	0	1	0	0	0	0
13	57113943	1	9	3	7	1	0	1	3	1	1	1	0	1	1
14	57116359	1	9	2	7	1	0	1	0	0	1	1	0	0	1
15	57117542	1	9	2	7	1	0	2	1	1	1	3	0	1	3
16	57117997	2	7	1	7	1	1	1	0	0	0	0	0	1	0
17	57118381	2	7	3	7	2	0	1	0	1	1	0	0	1	0
18	57118943	2	10	2	7	1	0	1	0	0	1	0	0	1	3
19	57120005	1	7	2	7	2	0	1	0	0	1	0	0	1	2
20	57120046	1	11	2	0	1	0	1	0	0	1	1	0	0	1
21	57120371	2	12	3	0	1	1	1	0	0	1	0	0	0	1
22	57121404	2	10	1	7	1	0	1	0	0	1	0	0	0	1

The questions I want to research are as following:

1. Does the relationship between children and parents have significant effect on the children's feeling? How the relationship with parents influences children's health situation?
2. Do the feelings of students have significant effect on their health situation?

There are some researches showing that parental caring is significantly associated with children's emotional health [1], and the communication

between parents and children does have significant influence on some behavior of adolescents [2][3]. Because childhood family environments represent vital links for understanding mental and physical health across the life span[4], I suppose that if children have bad relationship with parents, they would feel bad or upset, which makes them easy to get sick.

References

[1] Ackard, Diann M., et al. "Parent-child connectedness and behavioral and emotional health among adolescents." *American journal of preventive medicine* 30.1 (2006): 59-66.

[2] Miller, Kim S., et al. "Patterns of condom use among adolescents: the impact of mother-adolescent communication." *American journal of public health* 88.10 (1998): 1542-1544.

[3] Karofsky, Peter S., Lan Zeng, and Michael R. Kosorok. "Relationship between adolescent-parental communication and initiation of first intercourse by adolescents." *Journal of adolescent health* 28.1 (2001): 41-45.

[4] Repetti, Rena L., Shelley E. Taylor, and Teresa E. Seeman. "Risky families: family social environments and the mental and physical health of offspring." *Psychological bulletin* 128.2 (2002): 330.