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Study Question and Background

The idea for this project initially arose from a candid conversation between group members regarding the varying formats and degrees of sexual education each of us received during our primary and secondary educations, and what we've learned since that time. We began to wonder what correlations these various types of education might have with certain outcomes later in life. The Centers for Disease Control and Prevention (CDC) reported that from 2014 to 2018, the number of cases of chlamydia, gonorrhea, and syphilis increased 19%, 63%, and 71%, respectively.⁽¹⁾ Women were disproportionately affected by these infections, especially those aged 15-24.⁽¹⁾ We decided to base our P3 Honors Project on this underlying question.

We set out to determine the incidence of unplanned pregnancies and the transmission of sexually transmitted infections (STIs) in populations of women who received certain types of sexual education. Utilizing the categorizations set forth by Advocates for Youth, for data collection purposes we defined these educational methods as: 1) total lack of formal sex education; 2) "abstinence-centered" or "abstinence-only-until-marriage" education, in which students are instructed that the only morally correct option is abstinence with no mention of contraceptive or safe-sex practices; 3) "abstinence-plus" education, in which abstinence was primarily encouraged but information regarding contraceptives was also provided; and 4) "comprehensive" education, in which abstinence was taught as the most effective method of preventing pregnancy and STIs, but safe and healthy practices were taught as well.⁽²⁾

By asking questions regarding the survey responders' personal understanding of various contraceptive methods and their efficacy at preventing STIs and pregnancy, we hoped to be able to more effectively gauge which types of formal sex education provide the most favorable health outcomes later in life.

Study Population

The study population consisted of female members of the Texas Tech community. It was composed of women ranging from age 18 to over 70 with the majority being 21 to 30 years old.

Data Collection Methods

This project used the TTUHSC School of Medicine P3-1 Women's Night at the Rec Survey, an online survey instrument available to women who participated in the Texas Tech Recreation Center's Women's Night at the Rec event on February 28, 2020. The event was open to all female members of the Texas Tech community, including undergraduate and graduate students as well as faculty and staff. The survey, which included 6 question sets, received a total of 305 responses. The questions that our group submitted received 237 responses. This project was approved for exempt review by the TTUHSC Institutional Review Board.

Results

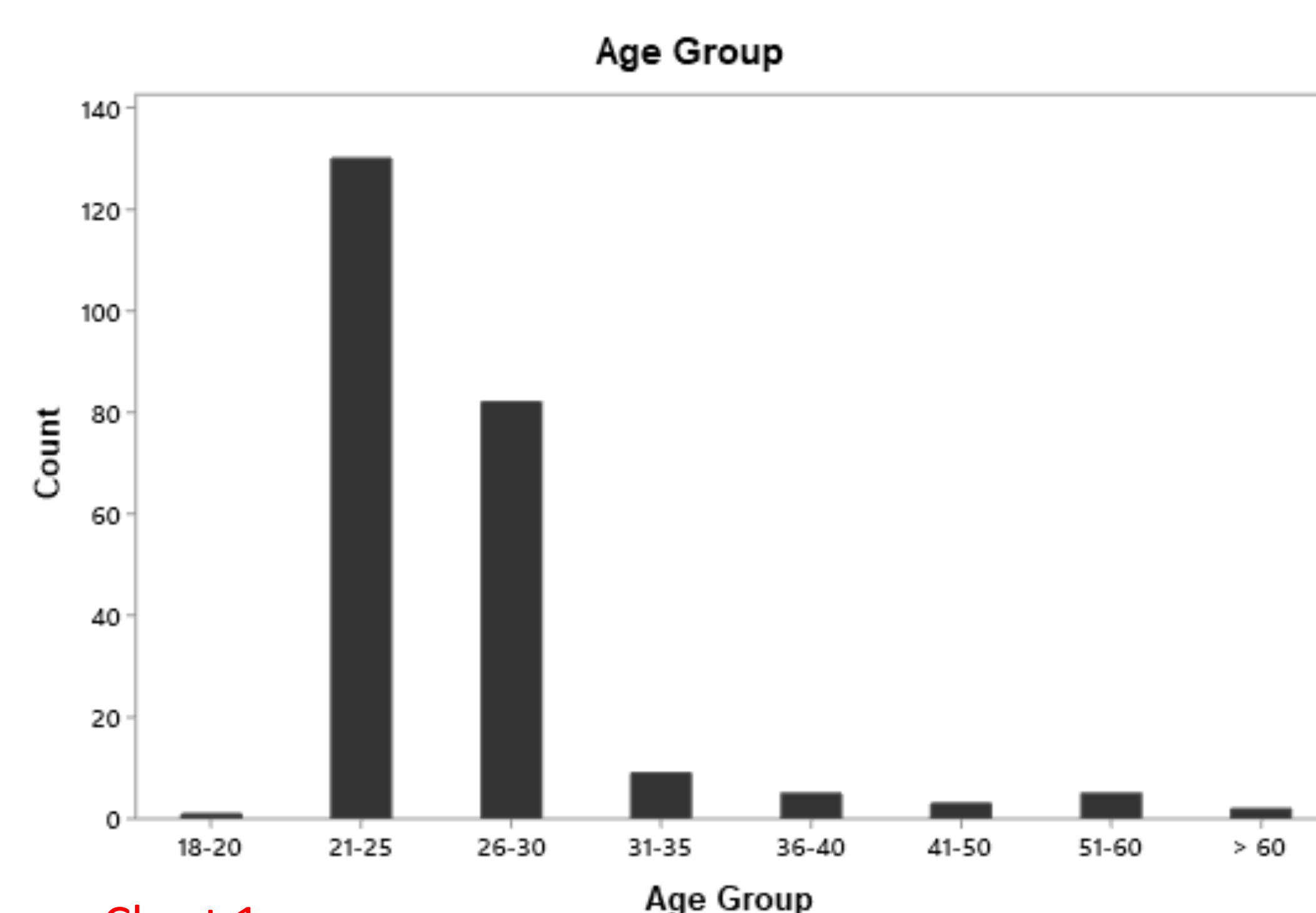


Chart 1

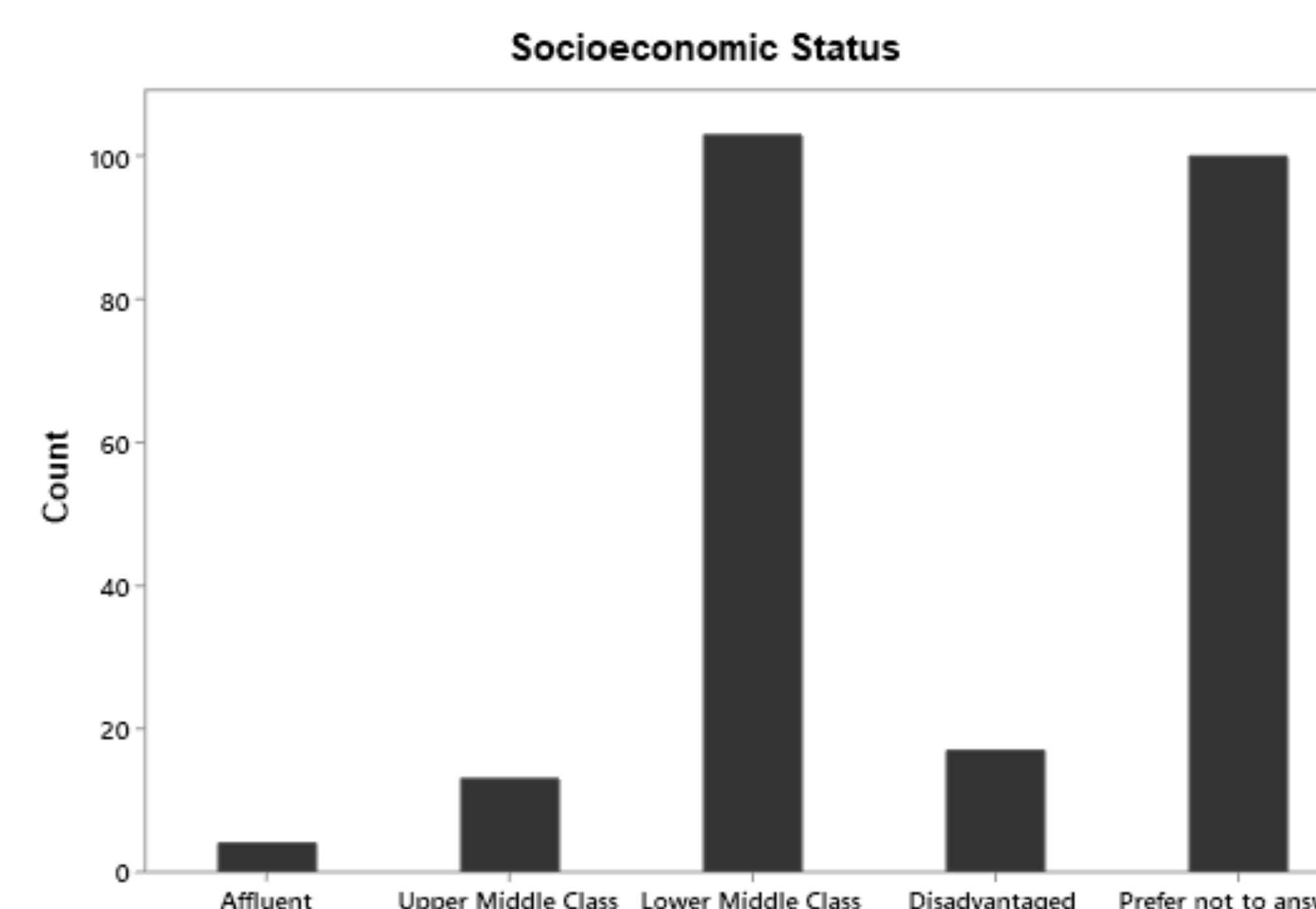
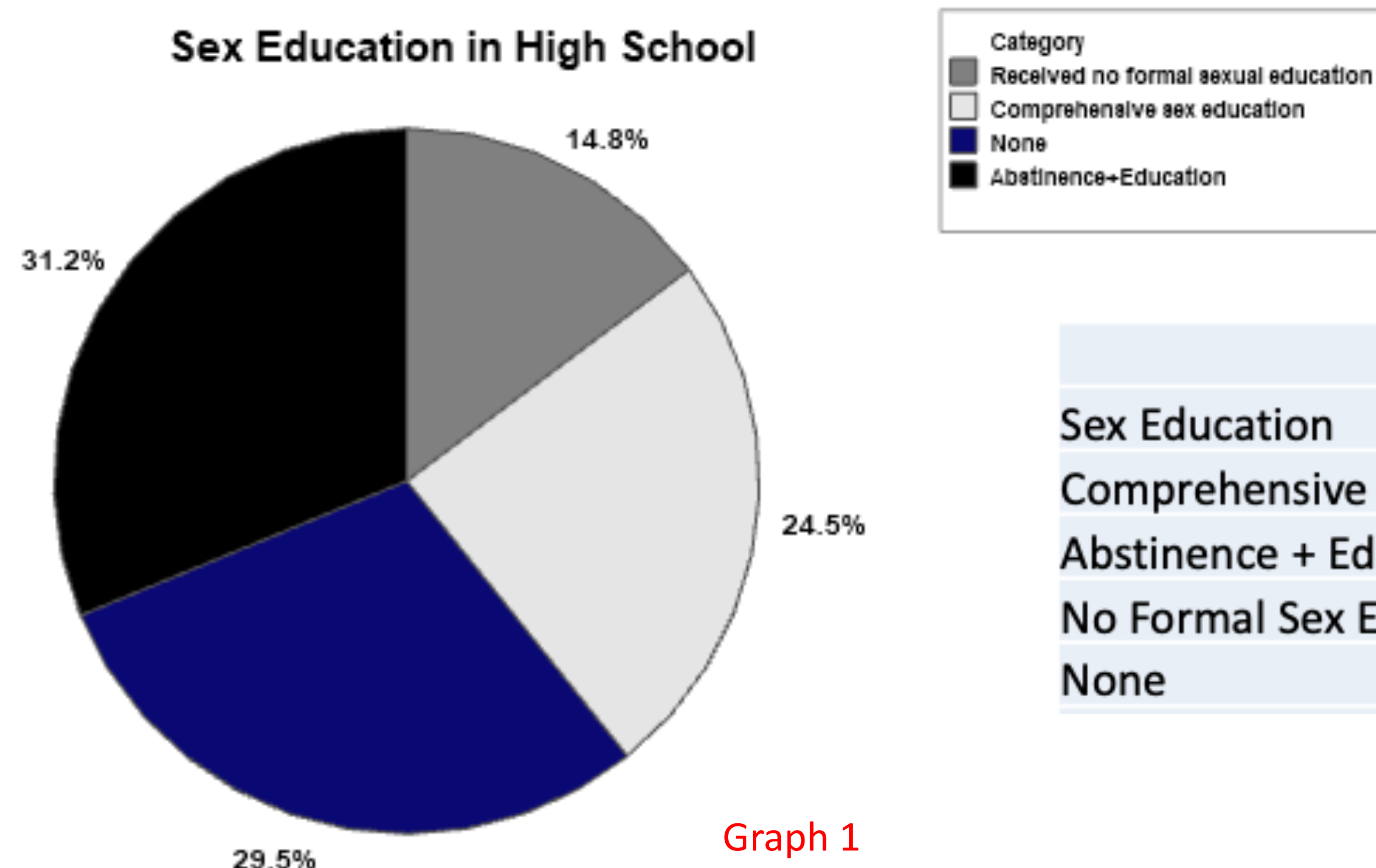


Chart 2

STI	Birth Control	Not Effective	Somewhat Effective	Moderately Effective	Very Effective	Completely Effective
Yes	21	6	2	7	3	3
No	216	66	25	56	30	39

STI	Condoms	Not Effective	Little Efficacy	Moderately Effective	Very Effective	Completely Effective
Yes	21	2	2	11	4	2
No	216	26	35	88	54	13

Table 1



Graph 1

Sex Education	Total	STI History?	
		Yes	No
Comprehensive Sex Ed	58	4	54
Abstinence + Education	74	6	68
No Formal Sex Ed	35	3	32
None	70	8	62

Table 2

Discussion

MiniTab and Microsoft Excel software were used to analyze and graph the data. Participants that did not complete the survey in its entirety were excluded from all analyses. The data did not reveal any differences in STI incidence as related to the type of sex education received. However, the study questions did not account for accessibility to contraceptives.

While the study did not reveal any statistically significant associations, our results suggest a lack of knowledge pertaining to sexual education. A number of women indicated that they believe condoms are not an effective way to protect against STIs, while others believed oral contraceptives are sufficient to prevent STIs. The data show that only 25% of the women surveyed had received a comprehensive sex education, while 31% received no sex education of any kind.

Next Steps

- Although the study involved 237 participants, only 21 reported history of an STI. A follow-up study with a larger number of participants might reveal correlations that this study did not.
- The method of data collection in this study was a survey of current undergraduate college females or adult females affiliated with Texas Tech University. As such, it is possible that the participant pool is not representative of the larger population. Therefore it is recommended that the study be expanded to include subjects without selecting for education level.
- Although the study was conceived with the notion of probing for correlation between sex ed and health outcomes specifically in females, it may be prudent to include males in a follow-up study. While this would necessarily shift the focus of the study away from the occurrence of unplanned pregnancies, valuable insights into the occurrence of STIs might be obtained.

References

1. "STD Prevention Infographics." *Centers for Disease Control and Prevention*, 16 March 2020, <https://www.cdc.gov/std/products/infographics.htm>.
2. "Sex Education Programs: Definitions & Point-by-Point Comparison." *Advocates for Youth*, 28 Jan. 2009, advocatesforyouth.org/resources/fact-sheets/sex-education-programs-definitions-and-point-by-point-comparison/.