Given our Hypotheses were:

Ho or Null Hypothesis: Happiness scores were not impacted by by covid deaths in the years 2020 through 2022.

Ha or Alternative Hypothesis: Happiness scores were negatively impacted by covid deaths in the years 2020 through 2022 with a confidence level of 95% or p value < .05.

Because we are testing if global happiness scores or averages changed or was impacted by covid 19 we used the two-tailed test.

With a normal distribution using two tailed test we would reject null hypothesis when a p value is less than .05 and a z score is either greater than 1.96 or lower than -1.96 because of the confidence value being 95%.

After observing the slide we see that statistic or z score was -2.30 and the p value was .02 allowing us to reject the null hypothesis of Happiness scores were not impacted by covid deaths in the years 2020 through 2022. Then assert our alternative hypothesis of Happiness scores were negatively impacted by covid deaths in the years 2020 through 2022 with a confidence level of 95%.

In non-academic language, we did see happiness scores impacted by covid 19 global pandemic.

Our final statistical analysis was correlations.

We used linear regressions to calculate the r value or correlation coefficient between life expectancy and happiness scores for the years 2018 to 2022.

In the year 2018, the relationship between life expectancy and happiness score has a r value of .642 meaning a weak positive linear relationship. Looking at the visual we see the values are clustered around the linear regression line but not tightly coupled.

In the year 2020, the height of the pandemic, we noticed the relationship between life expectancy and happiness score has a r value of .611 meaning a weak positive linear relationship. Looking at the visual we see the values are clustered around the linear regression line but not tightly coupled.

Finally for the year 2022, the end of the pandemic, we noticed the relationship between life expectancy and happiness score has a r value of .551 meaning a weak positive linear relationship. Looking at the visual we see the values are clustered around the linear regression line but not tightly coupled.

After observing the before and after relationships between life expectancy and happiness score we believe there is only a weak or small positive linear correlation coefficient factor between the two variables before, during, and after the pandemic.