

Social Media Use and Mental Health Outcomes

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Background

Definitions

Social media: An electronic form of connection and communication by way of website and applications. Users can create communities based on interests or groups and can have the option to be an active or passive participant.

Mental Health: Mental health is defined by our emotional, psychological, and social wellness. For this study, we will be looking at both depression and anxiety specifically.

Social media and smartphone use is increasing each year in the US since the early 2000 era. Social media has been used by individuals and business to share information through a platform that can reach millions of people in a short amount of time. This can be an incredibly effective tool for quickly sharing with your community or if you're a business, sharing with your consumers. The goal with this study was to analyze whether social media use and smartphone use could also be tied to potentially negative effects on mental health. The more information we have surrounding these tools we use daily, the more we can hopefully learn to mitigate potentially negative effects from their use.

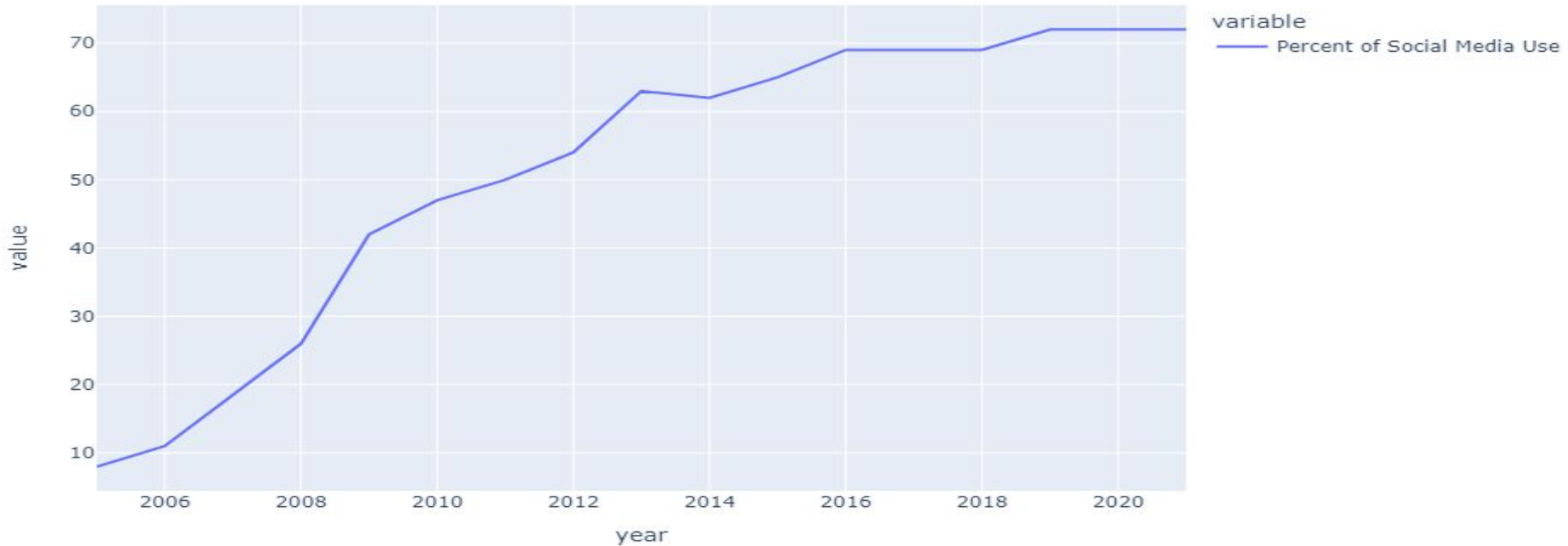


Data Collection

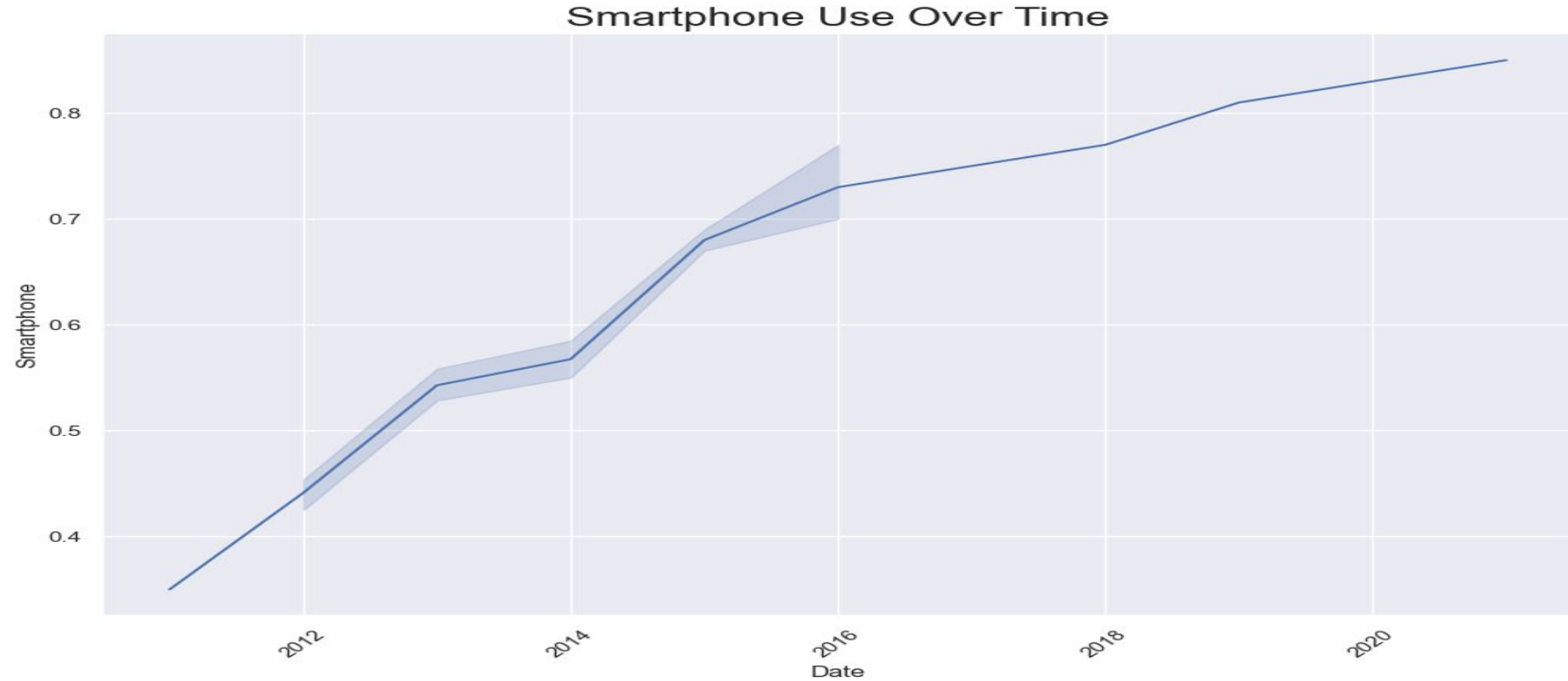
I utilized datasets from the Pew Research Foundation on social media and smartphone use. I then obtained datasets from Statista to collect information on adult depression & anxiety trends and youth major depressive episode trends by year. These datasets are all based in the US.



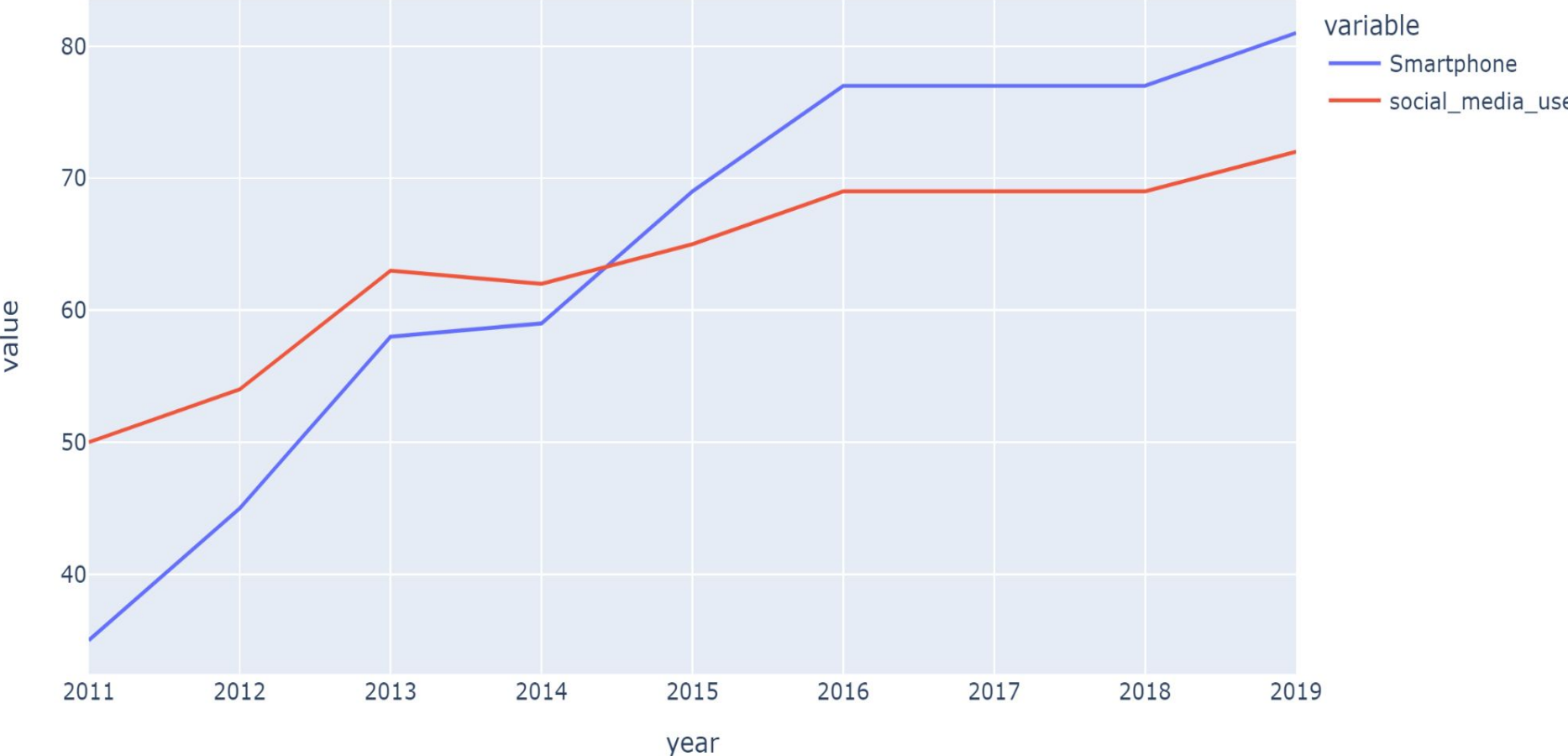
Social Media use in the US has increased steadily since its inception.



Smartphone use in the US has also increased yearly.

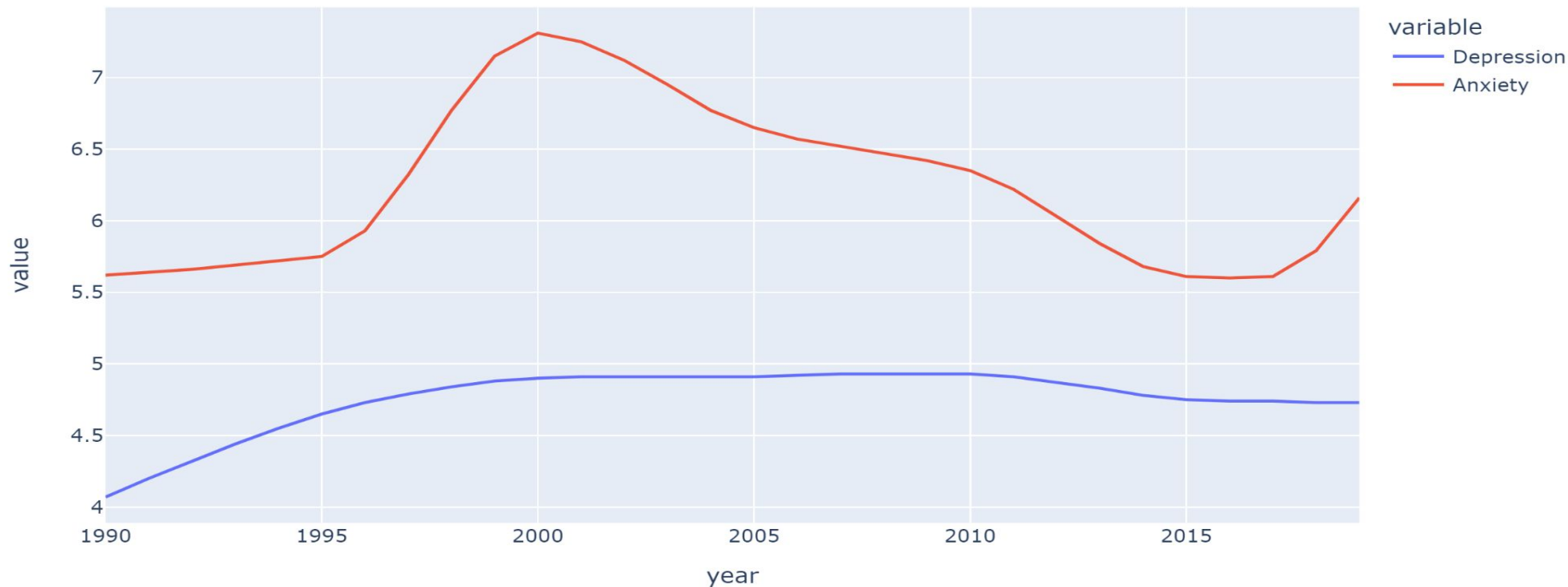


Smartphone and Social Media Use by year

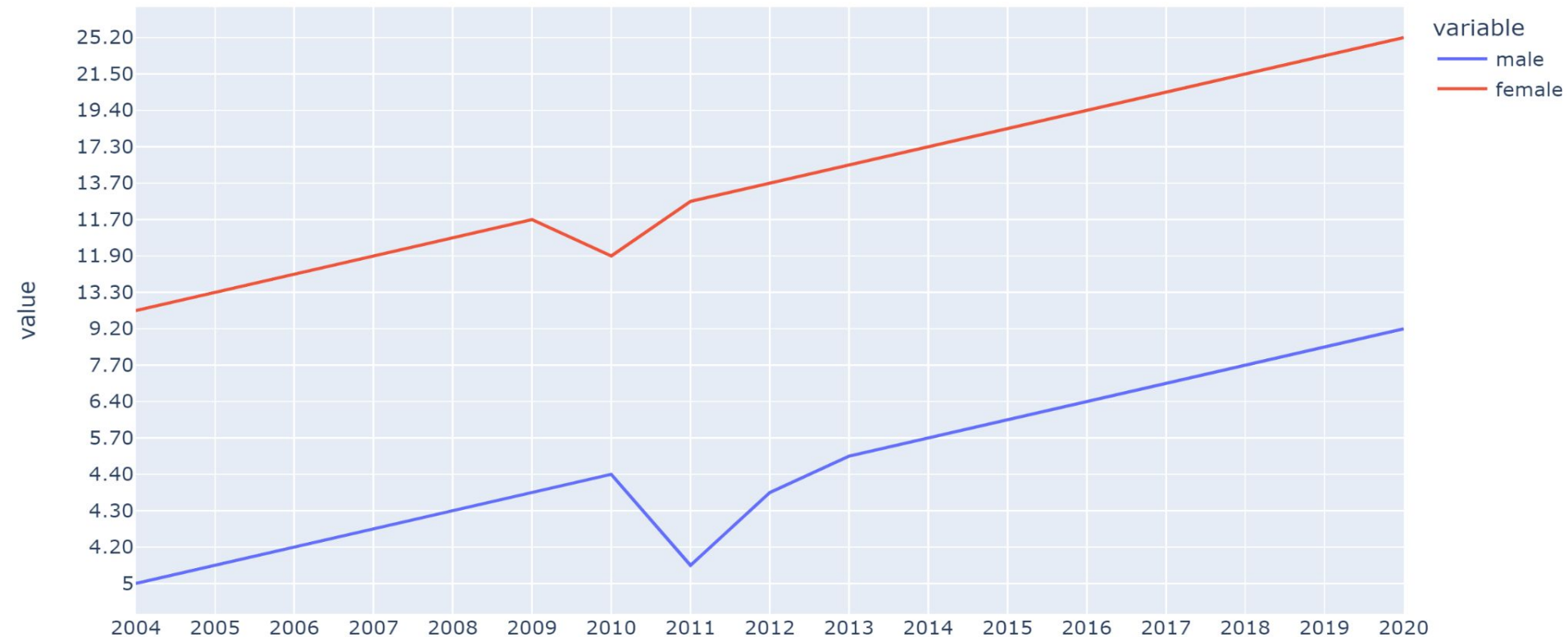


Depression and anxiety rates in adults by percentage of US population over time.

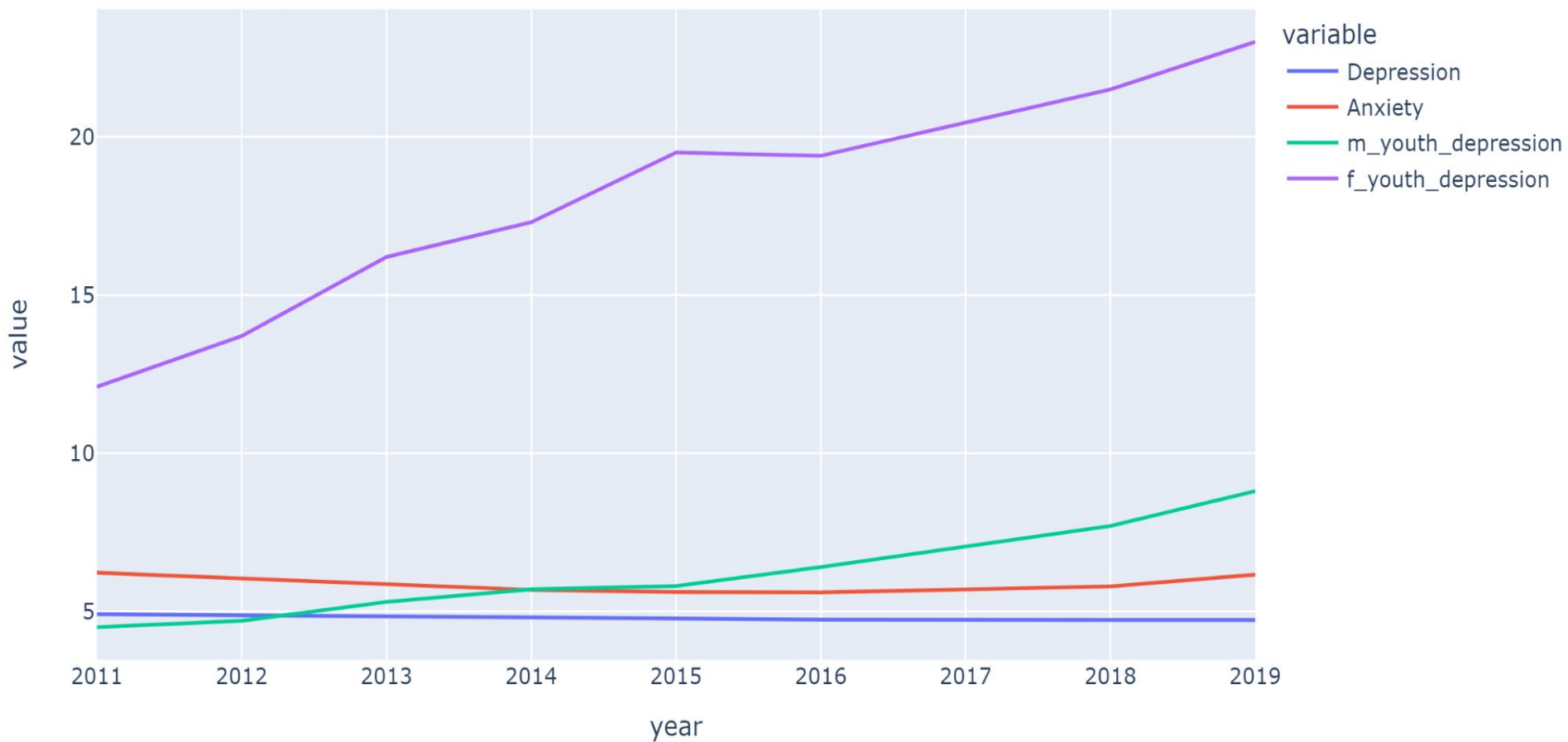
Depression and Anxiety Over Time



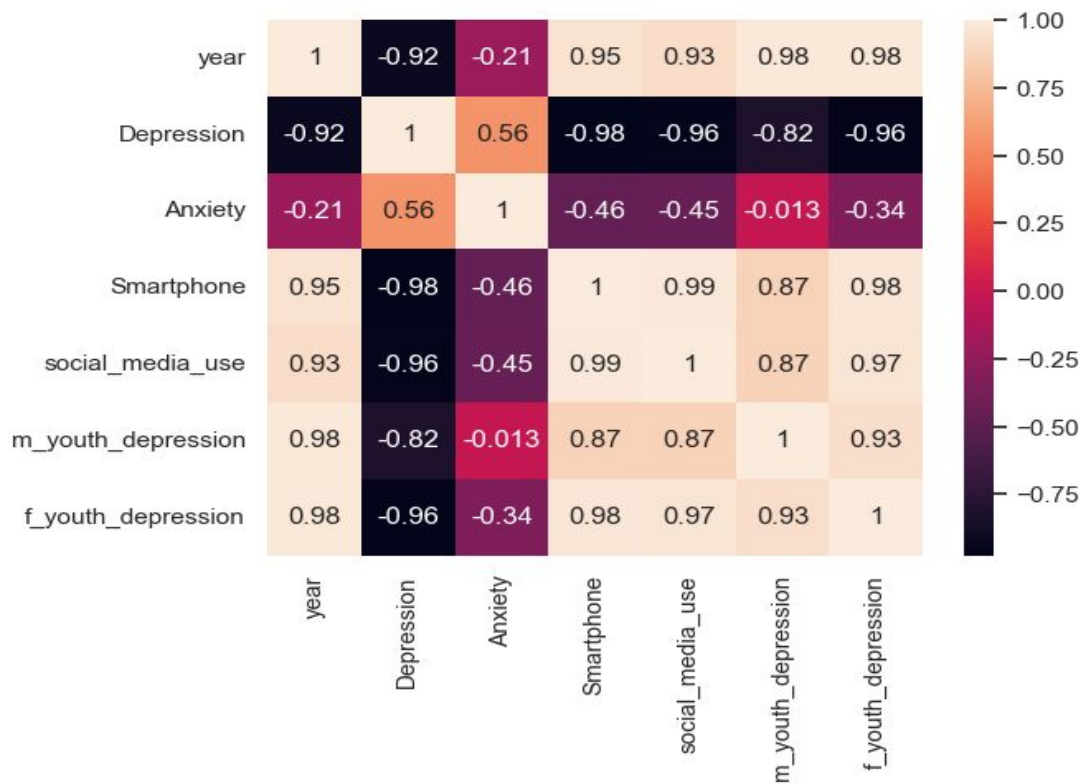
Major depressive episode in youth by percentage of US population by year, separated by gender.



Adult and Youth Depression Percent by Year



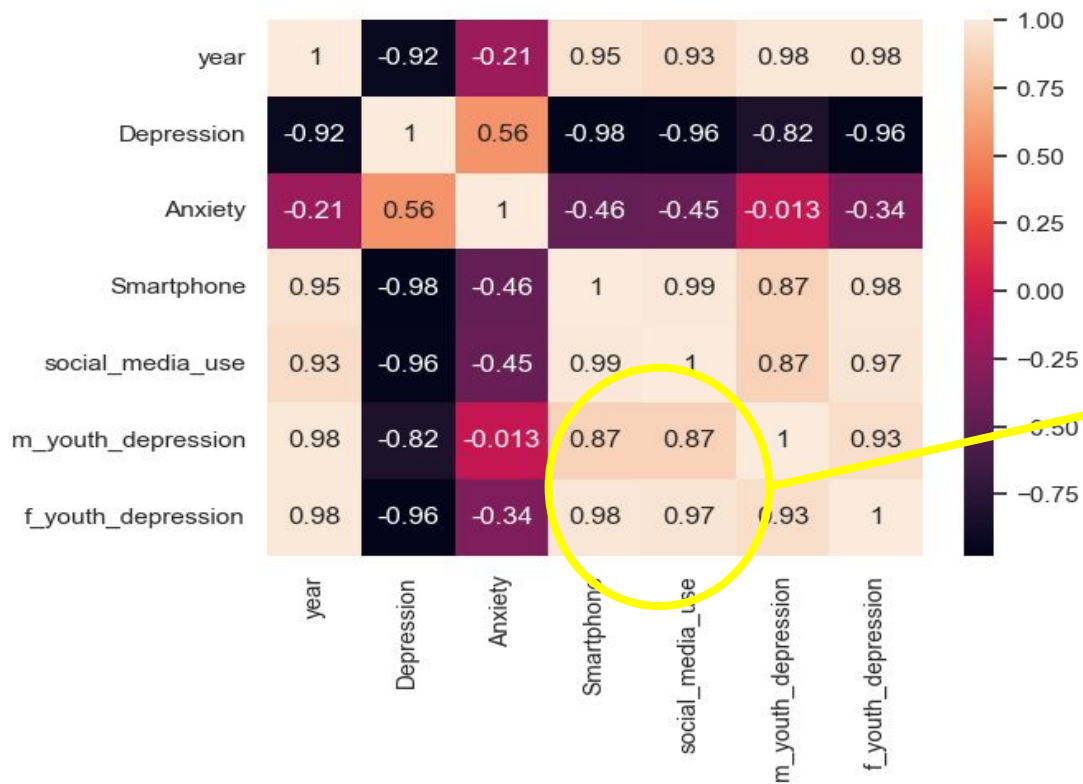
Exploring Correlation



Correlation Coefficient Scale

+ r values	Positive	- r values	Negative
1.0	Perfect +	-1.0	Perfect -
.8 to .99	Very strong+	-.8 to -.99	Very strong-
.6 to .8	Strong +	-.6 to -.8	Strong -
.4 to .6	Moderate +	-.4 to -.6	Moderate -
.2 to .4	Weak +	-.2 to -.4	Weak -
0 to .2	Very weak +	0 to -.2	Very weak -

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Youth depressive episodes are strongly correlated with social media and smartphone use.

Limitations

Limitations to note in this study include


- Limited dataset size
- Unable to account for what social media sources are being used and how
- Unable to adjust for other environmental factors that could be influencing depression rates.
- Correlation does not prove causation



Findings

Based on the data used in this study, there is a strong positive correlation with social media and smartphone use and depressive episodes in the **youth** population. It is especially evident in the female youth population as these two variables were very strongly correlated.

Implications

1. Increasing use of social media and smartphones could impact mental health outcomes for teens in the US.
 2. The trend of increasing depression rates in youth could have a lasting impact on our healthcare system that could be a challenge to handle without proper knowledge.
 3. Female youths are especially correlated with higher rates of depression as social media and smartphone use increases.
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Sources

Mental Illness Data Source Adults:

https://www.statista.com/topics/1298/mental-health-issues/#topicHeader__wrapper

Mental illness Data Source Youth:

<https://www.statista.com/statistics/252323/major-depressive-episode-among-us-youths-by-gender-since-2004/>

Cell Phone Data Source:

<https://www.pewresearch.org/internet/fact-sheet/mobile/>

Social Media use over time:

<https://www.pewresearch.org/internet/fact-sheet/social-media/>

Definitions :

www.merriam-webster.com

www.cdc.gov/mentalhealth/

