iGen: Trends in Social Media use, Behaviors & Mental Health

by

Cynthia B. Gonzalez

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Professor Marti G. Subrahmanyam
Faculty Adviser

Professor Vishal Singh
Thesis Adviser
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Abstract

My thesis examines the impact of social media use on iGen's behavior and mental health. iGen, also known as Generation Z, refers to anyone born after 1995. For the purpose of this paper, we will be using the following two key mental health metrics to measure depression: 1) Feeling sad or hopeless 2) Seriously considering suicide. Ultimately the paper concludes that social media platforms alone cannot be blamed for the rise in depression. Instead, deeper analysis indicates that a harmful byproduct of social media, online bullying, has a substantial effect on mental health and risky behavior. Further analysis indicates that social media has had a more significant impact on younger females' mental health and well-being. This occurs because social media has hypercharged female bullying, which primarily lies within relational aggression.

To reach this conclusion, an exhaustive amount of academic literature and nationally representative data, national surveys, psychology theory, and social theory were examined. This paper was inspired by the theory proposed by books such as iGen by Jean Twenge and The Coddling of the American Mind by Jonathan Haidt and Greg Lukianoff. These books proposed that the primary reason why depression and anxiety are on the rise is because of the introduction of smartphones and social media use.
Section 1: Getting to know iGen

Introduction

The adoption of smartphones and the introduction of social media platforms has reshaped the way we communicate, behave, and ultimately live. Today, most of us are walking with devices that have cameras and access to the internet at all times. Technology advancements have led to the development of social platform apps. The promise of unlimited connection drove the development and success of social media. There is no doubt that this level of connectivity has opened the doors to the expansion of information and collaboration around the world. However, recent attention has been given to the adverse effects of constant and obsessive use of smartphones and social media. There has been more media coverage on how social platforms and smartphones can negatively affect mental health and behavior. Sometimes, we even question whether social platforms are genuinely helping us connect or instead of doing just the opposite of what they set out to do.

Recent trends show that more individuals are being diagnosed with mental disorders such as depression and anxiety; this trend is most evident for teens. Many factors contribute to this phenomenon. Some people argue that there are more cases of depression and anxiety simply because people now feel more comfortable talking about mental health. Although we have seen a shift in mental health perception, there is data that shows that there have been a higher number of "hospital admissions for nonfatal self-harm." (Mercado, 2017) The fact is that hospitals are dealing with more cases of self-harm.
In my paper, I am looking to explore the behavior, trends, and mental health of the generation born into the internet era: iGen. (Twenge, 2017) iGen, also known as Gen Z, is a term used to describe the generation born after 1995. These individuals have grown up with the internet and smartphones as opposed to previous generations that had to adapt to it and learn how to use it. Most iGeners had Facebook and Instagram accounts before entering highschool. Their middle school and high school experience have and will continue to be influenced by their social platform management.

My thesis's initial focus was on exploring the connection between higher levels of poor mental health and social media use. Soon into my research, I realized that social media could not bear all the blame for the rising levels of depression in anxiety. Instead, I reshaped my research to discover who exactly is the most vulnerable to suffering higher levels of depression and why this trend occurs. For this paper, I will be exploring this trend for teens in the United States that were born after 1995.

**Background Research**

Before jumping into an in-depth analysis of what is driving this generation to suffer more significant levels of depression and anxiety, it is essential to understand how iGen thinks and behaves. To start, all iGeners are digital native. They have grown up with the internet, smartphones, smart home devices, among other tech devices. All they know is a life filled with screens and instant connection to others. Their interactions with their friends have never just been limited to in-person experiences.
This generation was raised to be very cautious and alert to the physical dangers of the world by helicopter parents or even bulldozer parents. Both of these styles of parenting are very hands-on and overly involved. The parents of iGeners did not leave their kids unsupervised, and therefore they did not have to face challenges on their own. For previous generations, children would be allowed to walk to and from school by themselves if their parents were not able to. Today that is something either not allowed or frowned upon in schools.

These parents had good intentions and wanted to simply protect their children from any possible danger. Growing up this way has led iGeners to be fearful and reliant on their parents' protection. In the book, *The Coddling of the American Mind*, authors Jonathan Haidt and Greg Lukianoff, warn that children today are too fragile. This constant protection and avoidance of disagreements and conflict are leading young adults to be socially crippled. These kids are now entering college and are forced to deal with challenging ideas and experiences. They often do not know how to deal with real-world challenges on their own, and instead, turn to authoritative figures to settle arguments for them.

The best way to illustrate the impact that overbearing parenting can have on children's development is by using the cleanliness theory as an example. The cleanliness theory suggests that kids are not exposed to the germs that help build immunity; therefore, they end up getting sicker. Overuse of antibacterial cleaning products and antibiotics can prevent children from naturally developing a robust immune system.

There is a similar theory regarding peanut allergy. In recent years there has been a rise in peanut allergies among children. New parents and mothers-to-be started avoiding exposure to peanuts in the fear that their children would develop a peanut allergy or suffer from a severe
allergic reaction. Some studies have shown that avoiding peanuts could be one of the reasons why more children are now developing peanut allergies. Without exposure, their bodies are not prepared to consume peanuts; therefore, they have an adverse and sometimes severe reaction. We can draw the parallel to the way iGeners are being raised if they are never exposed and pushed to deal with conflict and challenging conversations on their own when life inevitably throws a challenge their way they will not know how to deal with it.

Not everything about being cautious is terrible. In many ways, the emphasis on safety has paid off for iGeners. In the book *iGen*, author Jean Twenge goes through various data sources that prove that iGeners are safer drivers (Exhibit 1) compared to other generations during their teen years. This generation is waiting longer to start dating. They are waiting longer to have sex, and therefore there are fewer teen pregnancies.

Graph 1.a: Teens are Delaying Sexual Intercourse
There is also a decline in binge drinking and drug use. The two graphs below show the decline in risky behavior by iGen. The only exception to this decline in drug use is marijuana. In the words of Jean Twenge: "Teens were risk-takers until iGen entered the scene."

Graph 1.b: Drinking Alcohol as a Teen is Declining
In *iGen*, the author explains that some researchers attribute the decline in binge drinking to iGen’s fear that their slobbered self will end up ridiculed all over Instagram. This fear and, at times, the anxiety of being mocked, teased, and bullied, will be a common theme. iGen, unlike other generations, they are concerned not only for their physical safety but also for the safety of their reputation and emotions.

In the past, teens between the ages of fifteen through nineteen were more likely to die due to homicide than they were due to suicide. Recent data shows that there has been a shift ever since iGeners started to enter this age group. The trend line indicates that these adolescents are more likely to die from suicide than they are from homicide. This means that iGeners teens are more at risk of killing themselves instead of killing their peers. Graph 1.d below shows that

<table>
<thead>
<tr>
<th>Year of survey</th>
<th>Currently smoked cigarettes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>40%</td>
</tr>
<tr>
<td>2000</td>
<td>35%</td>
</tr>
<tr>
<td>2010</td>
<td>30%</td>
</tr>
<tr>
<td>2020</td>
<td>25%</td>
</tr>
</tbody>
</table>

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Graph 1.c: Smoking Rates are Diminishing

![Graph showing smoking rates](image_url)
causes of death in adolescents such as homicide, unintentional injuries, and motor vehicle traffic are all going down. The only cause of death that appears to be on an upward trend is suicide.

Graph 1.d: Cause of Death in Adolescents Ages 15-19

Although iGeners are often compared to millennials, there are critical differences in the way they behave. iGeners are in no rush to grow up and become independent. They are waiting longer to start dating. They are spending less time hanging out without parental supervision. National data from *Monitoring the Future*, shows that 12th graders in 2015 are going out less often than 8th graders did in 2009. This means that 18-year-olds, high school seniors, are now going out less than 14-year-old did just six years ago. iGeners, unlike other generations, are less likely to want to get their license as soon as they turn their state's driving age. They do not see having a license as an opportunity to become independent. Instead, they see it as unnecessary. They see no issue with having their parents drive them around everywhere.
Section 2: Analyzing iGen’s Mental Health

Data

To tackle this question, it was necessary to use rich data that was representative of what was happening in the world. Similarly, to analyze the generational differences among teens and to visualize these distinctions, it was imperative to dig into longitudinal data; this refers to a sample of population elements that are measured repeatedly over time. For this paper, I decided to use the Youth Risk Behavior Surveillance System (YRBS) data, Monitoring the Future (MTF), Pew data, and Child Stats.

The Youth Risk Behavior Survey (YRBS) has been conducted from 1991 to 2019. The survey was developed by the Center for Disease and Prevention (CDC). To get a representative sample of 9th through 12th-grade students, they used a stage three cluster sample. Collectively there are over one million observations. This survey is given to high school students from public, private, and Catholic schools. The survey has evolved over the years, and new questions have been added. Recently they have added bullying-related questions.

Monitoring the Future (MTF) is a survey that has been conducted since 1975 by the National Institute on Drug Abuse. MTF is a long-term study designed to detect age, period, and cohort effects in substance use and related attitudes. MTF states that it “collects data from U.S. adolescents, college students, and adult high school graduates through age 60.” It is designed to generate an accurate picture of what is happening in regards to risky behavior by young adults and teens in the U.S.
The Federal Interagency Forum develops the Childstats report on Child and Family Statistics (Forum). The Forum creates this report in collaboration with twenty-three other agencies to produce and use statistical data on children. Also, the Child stats report states that they seek to improve Federal data on American children to stimulate discussion among policymakers, data providers, and the public. The report highlights critical national indicators of wellbeing for America's children (ages 1-17 years old). Lastly, in this paper, I will also be utilizing data gathered by the Pew Research Center to get a better understanding of attitudes towards the internet, social media use, and whether Americans think it is good or bad for us.

**Key Mental Health Metrics**

Before jumping into the analysis of the data, it is necessary to understand the symptoms of depression. The depression DSM-5 diagnostic criteria explains that the individual must be experiencing five or more symptoms during two weeks. At least one of the symptoms must be (a) depressed mood or (b) loss of interest or pleasure. (DSM-5) Besides, some of the other symptoms are:

1. Recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide

2. Fatigue or loss of energy nearly every day

3. Diminished interest or pleasure in all, or almost all activities that used to bring the individual joy

4. Depressed most of the day, nearly every day (feeling sad, empty, hopeless)

5. Feelings of worthlessness or excessive or inappropriate guilt nearly every day

*Please note that the list above is not exhaustive.*
Asking bluntly ‘are you depressed’ is not usually answered honestly. It does not get answered with full honesty because people are ashamed about how they are feeling; people could not be aware of what depression is; others can simply be in denial. Therefore it is best practice to ask about depressive symptoms such as 'have you seriously considered suicide' since they tend to capture a more accurate picture. Another example is a question directly from YRBS: During the past 12 months, did you ever feel sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?

For this paper, I will be using 'feeling sad or hopeless' and 'seriously considered suicide' as my two key mental health metrics since both are part of the non-somatic symptoms of major depressive disorder in the DSM-5.

**Preliminary Analysis**

The analysis begins by simply observing whether there has been a difference in our key mental health metrics (1. feeling sad or hopeless and 2. seriously considered suicide) over time. From this graph, we can see that the level of reported feelings of sadness and depression has recently shot up, starting in 2011. Similarly, contemplating suicide was on a steady downward trend until 2007/2011. After 2011 we see contemplating suicide also start to shoot up.
Breaking down these findings further, I was interested in splitting this data to see if there was a difference between males and females for both key metrics. The graph shows that the level for feeling sad or hopeless is going up for both females and males; the exciting thing here is that the steepness of this line is greater for females. If that was not enough, more females in comparison to males are generally reporting feeling sad or hopeless.

Similarly, for key mental health metric number two, there is a distinct difference in the average reportings of seriously considering suicide between females and males. Both genders are experiencing an increase; the main difference is that females are experiencing this rise at higher levels.
Graph 2.b: Two Key Mental Health Metrics Graph by Gender

Since there was a distinct difference between gender, the next thing to explore is whether there is a similar difference between race and grade level. Graph 2.c shows that the gender difference for health metric number one is consistent across different races, meaning that regardless of race, more females are experiencing sadness and hopelessness. The spike up consistently occurs after 2011. Graph 2.c also shows a subtle difference between races: Hispanic/Latina females are experiencing feeling sad and hopeless at higher levels. There is a similar pattern when we split the data by grade level. In graph 2.d, we are splitting by grade level to visually understand whether age also plays a role in feeling sad or hopeless. Graphs 2.c and 2.d both have consistent patterns across different grade levels and races. Exhibit 2, includes
the levels of key mental health metric number one on younger ages. The rise in feeling sad or hopeless is much greater within younger girls, often middle school girls.

Graph 2.c : Key Mental Health Metric #1 (Feeling Sad or Hopeless) Graph by Gender and Race
The next step was to split the second key health metric by the same variables to see if the pattern was consistent across race and gender. Graph 2.e shows consistent patterns across different races. There was a change in the trend line for females and males of any race after 2011. Although, considering suicide, the difference between genders is not that far apart, the trend line for females is consistently higher than that for males regardless of race. It is imperative to mention that there is a distinction on what graph 2.e is showing in comparison to previously mentioned graph 2.c. In this case for graph 2.e 'all other races' females are experiencing higher levels of metric number two, whereas in graph 2.c it was 'Hispanic/Latina' females. Graph 2.f is showing metric number two, split by grade level. Just at a glance, this graph portrays a more precise pattern than its counterpart graph 2.d (key metric one split by grade). Graph 2.f is
showing us that younger grade levels, on average, are reporting seriously considering suicide at higher levels than older grade levels. For seriously considering suicide, there is a downward trend as you get older. Graph 2.f, like all of the other graphs previously mentioned, show a consistent pattern: females are experiencing both key metrics at higher levels than males across all ages and races. Exhibit 3, includes the levels of key mental health metric number 2 on younger ages. The rise in seriously considering suicide is much greater within younger girls, often middle school aged girls.

Graph 2.e: Key Mental Health Metric #2 (Seriously Considering Suicide) Graph by Gender and Race
We have found that young girls (pre-teens, teens, and young adults) have shown the most significant shift in mental health problems. According to data gathered on hospital admission for nonfatal self-harm for boys vs. girls, rates of being hospitalized for self has gone up for girls. The rate for 15-19-year-old girls is up by 62%. The rate for 20-24-year-olds is up by 17%. The most shocking stat is the standard for 10-14-year-old girls (pre-teens) is up by 189%. These numbers are pointing out something exciting to us: something is happening to iGen that does not affect millennials as much. One of the things that have changed for iGen is that just about every American teenager has a smartphone with access to social media in middle school. The majority of millennials did not have a smartphone with access to social media in middle school.
Preliminary Conclusion

Based on the preliminary analysis, there are interesting trends that are backed up by the data. The first conclusion we can make based on the analysis is that there is an increase in depressive symptoms among high school students regardless of race. YRBS has asked highschool teens since 1991 whether they had seriously considered suicide. Having access to these survey results throughout all these years gives us access to generational differences. Each year after 1991, fewer students on average were reported seriously considering suicide, until 2011.

Why 2011? One theory that has been explored by many scholarly articles is that starting in 2011, smartphones started seriously gaining popularity and adoption. This means that by 2011, most young adults had a cell phone of some capacity or a smartphone. In 2011, smartphone adoption had been recorded to be at 35%, whereas as of 2019, 81% of adults have adopted smartphones. (Pewresearch, 2019) Younger generations mirror this trend. The Common Sense Census: Media Use by Teens and Tweens reports, shows that data from 2015 compared to data of smartphone ownership in 2019 and the numbers are astounding. About 32% of tweens of the age of eleven own a smartphone. As of 2019, more than half of the eleven-year-olds have smartphones (53%). For highschool aged teens (15-18-year-olds) the jump has moved from about 71-77% of them owning smartphones in 2015 to 83-91% of them having a smartphone in 2019. (Pewresearch, 2019) What do smartphones have to do with depression? Now tweens and teens have access to phones that can download apps such as Instagram, Twitter, Snapchat,
Facebook, and TikTok. Older generations faced the struggle and challenges of high school without the added pressure of social media.

This brings me to the last preliminary finding: more females, no matter what age or race experiences, both key health metrics established: feeling sad or hopeless and seriously considered suicide. Why girls? Before jumping into why we need to understand how girls and boys bully and tease each other. Males tend to, by nature, turn to violence when they want to bully one another. They primarily turn to physically harming their counterparts instead of turning to gossip or spreading hurtful rumors about one another. For boys in middle school and high school, the internet, instead of bringing them, social media brought them games and porn. The introduction of the internet did not heighten their ability to bully one another. Instead, it gave them access to platforms for other forms of entertainment that older generations did not get to experience. Girls tend to bully each other through relational aggression. This can take the form of spreading rumors, private photographs, and talking poorly of one another. Social media gave girls a platform where they could ‘anonymously’ bully one another. Having the illusion of anonymity gives people a sense of freedom of words and action without any consequences.

What does this mean for female tweens and teens? Social media has created a platform where girls can attack one another while feeling safe behind an anonymous account. In other words, natural bullying tendencies for girls have been hyper-charged with social media. Teasing and bullying are no longer an issue that is restricted to in-person experiences; instead, when someone is bullied, they can be bullied every day at any time virtually. During my time in high school, from 2012 to 2016, I started noticing a rise in 'Finstas,' 'Group account,' 'Exposing' accounts on Instagram. In these, private accounts people would post private pictures of one
another and bash each other. I have friends who would use their 'finstas,' which means fake Instagram, as the account where they would talk bad about other girls from my high school. As if that was not enough, guys started creating 'exposing' accounts where they would slut-shame girls and post nude or semi-nude pictures of these girls.

Social media has also added a new level of social comparison among females. Social accounts are usually a snapshot of what each account holder wants you to see. These accounts are not accurate reflections of their lives or even what they look like. Girls in middle school, high school, and even college still use these accounts as a standard that they use to compare themselves to. Yes, girls have been able to compare themselves to models and influencers for a while now. The difference now is that they can compare themselves to their friends. Some girls will look at how many followers, comments, or likes their friends get and will feel bad about herself if she does not get as many as her friend. This social comparison can lead girls who are already vulnerable and have self-esteem issues to walk away from social media, feeling worse about themselves.

Section 3: Analyzing the Negative Aspects of Social Media Use

Analysis

We cannot conclude that social media use causes depression, instead we can dig deeper and try to use data to understand what aspects of social media could be contributing to higher levels of depression among iGen. More specifically, we can explore a negative aspect of social media: Cyber Bullying. For this analysis, we will look at the data gathered by YRBS on bullying. The questions of interest are worded as follows:
Question A) During the past 12 months, have you ever been bullied on school property?

Question B) During the past 12 months, have you ever been electronically bullied?
(Include being bullied through email, chat rooms, instant messaging, website, or texting?)

As of 2007, the electronically bullied question was reworded to say 'count being bullied through texting, Instagram, Facebook, or other social media.' By doing a quick distribution analysis, we found that 20% of the students answered they were bullied on school property, and 16% answered they had been bullied electronically. Similar to the preliminary analysis, I first decided to split the data by gender. The breakdown of who answered ‘yes’ to being bullied in school property is represented by the bar chart below. The purple bars represent females, and the grey bar represents males. We see a repeating pattern for bullying as we did for our analysis; in this case, more females are experiencing bullying on school property.

Graph 3.a: Bullied on School Property by Gender
There is a similar breakdown for those who reported being electronically bullied. Based on the two bar graphs, females are twice as likely to report being bullied.

Graph 3.b: Bullied Electronically by Gender

To take this further, I decided to break the data further, in this case, by race and age. This next graph has a lot going on. We are first splitting by gender: females represented by the purple, males by the grey. Next, at the top of the graph, we can see that we are splitting by race: White, Black or African American, Hispanic/Latino, and all other races. Lastly, towards the bottom of each race split, we split the information further by grade level. This graph gave us two other insights: White females in the 9th grade are the most likely to report being bullied, and the youngest are the most vulnerable. Regardless of race and gender, the 9th graders report being bullied at higher rates. Bullying reports go down as they approach 12th grade.
Taking what the data has shown thus far, the next step was to dig even more profound. Since more females are reporting being bullied and that on average more females seriously consider suicide and feel sad or hopeless, the next step was to filter the data to only show females. The graph below aims to show the different levels of seriously considering suicide between females that are bullied and females that are not bullied. Being bullied is represented by the number one and the red bars. Without much effort, we can see that the red bars are higher than the blue ones. What this means is that being bullied is one of the determining factors for depressive symptoms.
The next trend of interest is looking at how being bullied affects feeling sad or hopeless among females. For the next bar graph, the trend remains consistent for females. If bullying is present, on average, the female is about twice as likely to report feeling sad or hopeless. For both of the key mental health metrics, bullying is a determining factor for higher levels of depressive symptoms.
Graph 2.e: Feeling Sad or Hopeless by Bullying *Filtered where sex = Female

To take the analysis further, we split the data by race. This graph is filtered just to show how females responded. The red line indicates that bullying was reported. We found that, regardless of race, when bullying is present, females are three times more likely to consider suicide.
There was a similar conclusion for the other key health metric: feeling sad or hopeless. When bullying is present, regardless of race, females are three times more likely to experience feeling sad or hopeless. In the previous two line graphs, there is a vast difference between experiencing depressive symptoms when bullying is present as opposed to when bullying is not present.
As previously mentioned, iGen is thought to be the most cautious and safe generation. Drug use, underage drinking, sex, and teen pregnancies have all gone down as iGen has grown up. Given that bullying is a determining factor for depressive symptoms, I wanted to see if bullying would impact risky behavior. The first graph shows how alcohol use varies between females and males when bullying is present and not. Although the alcohol trend line is overall decline, we see that both males and females are more likely to drink when bullying is present. The impact of bullying on risky behavior is more significant on females; the impact can be visually understood by looking at the space between the red and blue lines for each gender. For males, the red line, which represents bullying as being present, is higher than the blue line, but
the space between the two lines is not as high as it is for females. Another important note is that although alcohol is thought to be something abused primarily by males, this graph shows that when bullying is present, females are more likely to engage in alcohol use than males who have reported being bullied.

Graph 2.h: Alcohol Use by Gender when Bullying is Present

The next risky behavior that had exciting results was marijuana use. Once again, for this analysis, I decided to split the data by gender and then aim to visualize how engagement in this risky behavior changes when bullying is present. For females, the conclusion is consistent: when bullying is present, females are more likely to use marijuana. The difference between lines captures the difference that bullying has on females. For males, there is not a clear connection between bullying and marijuana use. From 2009 to 2013, males who were not bullied were ever
so slightly more likely to use marijuana than guys who had been bullied. For the first time, we see the blue line just above the red line. This trend seems to be changing after 2013.

Graph 2.i: Marijuana Use by Gender when Bullying is present

Conclusion

Technological advances and modern medicine have drastically improved life expectancy and quality, today, we are experiencing rising levels of depression and anxiety among our youth. Have people generally gotten more comfortable speaking up about mental health issues? Yes. Unfortunately, this is not the reason enough to ignore the rising levels. Data gathered by hospitals and national surveys serve as evidence to show that this is a real issue, and it is not just that we all suddenly feel comfortable writing off any sad feeling and say they have depression.
In this paper, we explored iGen trends and behaviors. We learned that iGeners are different from all other generations. iGeners are not in a rush to grow up and be treated like adults. They are waiting longer to have sex, and by consequence, there are fewer teen pregnancies among this generation. In general, they avoid hazardous behaviors like taking drugs and drinking or have delayed experimentation of risky behavior until early adulthood. They are, by far, the most cautious generation. iGeners are a product of fearful parents.

Even with all of the precautions to avoid potential dangers and responsibilities, iGeners are more likely than their counterparts to develop depression or anxiety. This rise is the most dangerous and alarming among middle school and high school students. Based on our analysis, we know that this trend started to shift upward after 2011, for males and females regardless of race or grade level. The data proved that bullying is more prominent in females. Female bullying is hyper-charged with social media since it creates an easy and, at times, anonymous way to engage in relational aggression.

We also concluded that we could not equate social media use with depression since not everyone on social media ends up depressed. Instead, we decided to take this theory further and narrow down what exactly about social media puts these teens at higher risk. Arguably the most significant negative aspect of social media is online bullying. In our analysis, we concluded that bullying is a determining factor for both of our key mental health metrics. Regardless of race or gender, when bullying is present, more teens report feeling sad or hopeless and seriously considering suicide. Not only is bullying a determining factor for depression, but it also has an impact on whether the teen engages in risky behaviors such as smoking marijuana and underage drinking.
Section 4: Changing the Course of Depression

Implications

This paper aims to shed light on a severe problem that should concern us all: rising levels of depression among our youth. Although there is no way to stop all bullying completely, the grown-ups and organizations could be doing things to prevent bullying from happening.

The first group that could be doing more are parents. Parents need to understand and be aware of the severe implications bullying could have on their children. It is erroneous and possibly dangerous to write off any bullying as mere teasing. Understanding what some of the depressive symptoms are could help them get their children the professional help they need. Having open discussions about social media and how their child feels about what they get on their feed could give them insight. Monitoring how long they spend on social apps during any given day can help parents understand whether they should encourage their children to go “offline” or take social media cleansing.

The next group that could be doing more to prevent bullying from leading another kid into depression and possible suicide are schools. Most of the bullying occurs on school property. School directors and board of education representatives need to develop a better system to report bullying and a set protocol to deal with bullies. First, the teachers need to undergo training to understand how they can prevent and deal with bullying. Government officials of each state should ensure that all educators undergo proper training, especially middle school and high school teachers and substitute teachers. Teachers can take matters into their own hands and
establish clear rules as to how they expect students to treat each other. It is not enough to have a set of rules. There must also be repercussions to bullying. Teachers and other school faculty should create a safe way for students to report bullying. Many cases go unreported because students fear that the school's faculty might make it worse, and the bully may aim for retaliation. Schools need to ensure that reporting bullying can be anonymous and safe.

Lastly, there is a third group that could be doing more: social media platforms. We all understand that the creators of Facebook, Instagram, Snapchat, and TikTok did not create these platforms to promote online bullying. For years these platforms have hidden behind the argument that they do not have control over what the users decide to post. These platforms are trying to find a balance between allowing their users to have full freedom of speech or censoring some of the content created. They sometimes hesitate to take some of the content down, since they run the risk of having lash back from the public about violating the right to freedom of speech. With the help of policymakers, these platforms could have clear as to how to deal with bullying on their platforms. It needs to be easier to report negative posts and accounts. These companies need to realize that although they cannot control what content is being created, they can manage the content and take down things that are harmful and dangerous. They need to allocate more resources to content management and take quick action to take down accounts that are propagating bullying.

Although the focus of my thesis was on iGen, there are similar social media use implications for older generations, especially among Millennials. The Pew Research Center has gathered data on the sentiment of social media content among eighteen year olds to sixty five year olds and older. Graph 4.a indicates the breakdown of how often social media content makes
users feel depressed. This graph shows that no matter what age group females tend to be vulnerable to having social media content make them feel depressed. This is an issue that is greater among our youth, but still applicable to older generations.

Graph 4.a: How often does Social Media Content Make you Feel Depressed?

Areas for Further Exploration

Online bullying and the possible impact of consistent social media use is a topic that has recently received more attention and credibility. National surveys like YRBSS added questions about online bullying only eight years ago. At the moment, no extensive public data on micro-level behavior and trends available to the public. Having access to how teens are using these apps and how they feel after using each app would open the doors to further analysis. This
data could help us understand what specific features of social apps could be harming the mental health of kids that are vulnerable to bullying.

The Pew Research Center has collected core trends regarding technology sentiment and social media use. Unfortunately, the data starts at the age of 18 and up. If the Pew Research Center recreated this survey and gathered data from 10-year olds through 18-year-olds, we would have a better understanding of how each age group and sex feels towards social media. Questions like ‘How often does social media content make you feel lonely?’ could help us understand who is at risk of developing depressive symptoms. The graph below gives us insight that young adults, some of which classify as iGeners, are more likely to have social media content that makes them feel lonely. Even within older generations, we observe a similar pattern: females are affected by social media.

Graph 4.b: How often does Social Media Make you feel Lonely?
Throughout my research, there were specific patterns that popped up that would have been helpful to explore further. The pattern that I found most interesting is that different individuals are affected by different social platforms. Based on personal experience and observation, the determining factor of what platforms affect your mood depends on what you value, how to measure success, and what makes you happy. It is crucial to make the distinction that individuals who are already feeling frustrated, sad, and lonely are at a much vulnerable position to have social media platforms make them feel worse. Social media usage does not influence everyone's mood; as previously mentioned, some individuals are in a much vulnerable position. For example, I found that peers that were having a hard time landing a job or internship would walk away from LinkedIn feeling like failures. They would have connections that would post their acceptance letters or promotions. There was a different set of individuals that valued being liked by others and having an exciting social life cared more about how successful their posts on Instagram were. These individuals cared more about what they posted and how many likes they would get on their posts. If their friends posted pictures of a social outing without them, they would walk away feeling jealous and left out.

Younger social media users are not mentally developed. Most of them are still trying to figure out what they want to value, who they want to be, and are trying to understand their purpose in life. These users face the danger of having social media dictate what they should value, their purpose, and who they should strive to be.

During quarantine, I got to spend more time with my ten-year-old sister and got to hear her interact with her friends. I watched her and her friends get hooked on TikTok and the viral dances. It all started innocently, but it was not long until she started becoming self-conscious of
how she looked. There is a new wave of TikTok trends that are body feature checks. For example, there is a 'profile check' and a 'backside check.' Users will create TikTok showing off their side profile and how their body looks from behind. Younger users, who may just be there for the viral dances, soon start to find this content and ask why they do not look like others. These impressional kids usually without knowing it let social media trends set their new standards of beauty, happiness, or success.

Another topic that would have been useful to explore further is the different modes of social media use and their impact. To keep things simple, let us assume that there are just two modes of use: active posting or passive scrolling. What are the possible risk factors present in each mode of use? Is one better than the other? For people that are actively posting, they usually are tracking who is liking their posts, who is commenting, and overall how much engagement they get based on one post. On the other hand, we have passive users, who are taking in content while they scroll through their feed.
Exhibits

Exhibit #1

Drove a car or other vehicle when they had been drinking alcohol
Source: Youth Risk Behavior Surveillance System (YRBSS)

<table>
<thead>
<tr>
<th>Year of survey</th>
<th>All other races</th>
<th>Black or African American</th>
<th>Hispanic/Latino</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>3%</td>
<td>9%</td>
<td>7%</td>
<td>6%</td>
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<tr>
<td>2014</td>
<td>2%</td>
<td>6%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>2016</td>
<td>1%</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>2018</td>
<td>0%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Trends in Mental Health of American High School Students
Source: Youth Risk Behavior Surveillance System (YRBSS)

Felt sad or hopeless

<table>
<thead>
<tr>
<th>13 years old or younger</th>
<th>13 years old</th>
<th>14 years old</th>
<th>15 years old</th>
<th>16 years old</th>
<th>17 years old</th>
<th>18 years old or older</th>
</tr>
</thead>
</table>

Year of survey

2000 2010 2020

2000 2010 2020

2000 2010 2020

2000 2010 2020

2000 2010 2020

2000 2010 2020

2000 2010 2020
Exhibit #3

Trends in Mental Health of American High School Students
Source: Youth Risk Behavior Surveillance System (YRBSS)

<table>
<thead>
<tr>
<th>Seriously considered attempting suicide</th>
<th>12 years old or younger</th>
<th>13 years old</th>
<th>14 years old</th>
<th>15 years old</th>
<th>16 years old</th>
<th>17 years old</th>
<th>18 years old or older</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990 2000 2010</td>
<td>Year of survey</td>
<td>Year of survey</td>
<td>Year of survey</td>
<td>Year of survey</td>
<td>Year of survey</td>
<td>Year of survey</td>
<td>Year of survey</td>
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<tr>
<td>20%</td>
<td>25%</td>
<td>30%</td>
<td>35%</td>
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<td>55%</td>
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<td>15%</td>
<td>20%</td>
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<td>45%</td>
<td>50%</td>
</tr>
<tr>
<td>10%</td>
<td>15%</td>
<td>20%</td>
<td>25%</td>
<td>30%</td>
<td>35%</td>
<td>40%</td>
<td>45%</td>
</tr>
<tr>
<td>5%</td>
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<td>20%</td>
<td>25%</td>
<td>30%</td>
<td>35%</td>
<td>40%</td>
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</table>
## Response Seriously considered attempting suicide

### Effect Summary

<table>
<thead>
<tr>
<th>Source</th>
<th>LogWorth</th>
<th>PValue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were bullied on school property</td>
<td>5414.160</td>
<td>0.00000</td>
</tr>
<tr>
<td>sex</td>
<td>1026.570</td>
<td>0.00000</td>
</tr>
<tr>
<td>race4</td>
<td>164.973</td>
<td>0.00000</td>
</tr>
<tr>
<td>Were bullied on school property*sex</td>
<td>112.423</td>
<td>0.00000</td>
</tr>
<tr>
<td>grade</td>
<td>9.245</td>
<td>0.00000</td>
</tr>
</tbody>
</table>

### Summary of Fit

- RSquare: 0.069973
- RSquare Adj: 0.069955
- Root Mean Square Error: 0.349022
- Mean of Response: 0.155005
- Observations (or Sum Wgts): 463803

### Analysis of Variance

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
<th>Prob &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>9</td>
<td>4250.734</td>
<td>472.304</td>
<td>3877.176</td>
<td>&lt;.0001*</td>
</tr>
<tr>
<td>Error</td>
<td>463793</td>
<td>56497.613</td>
<td>0.122</td>
<td>Prob &gt; F</td>
<td></td>
</tr>
<tr>
<td>C. Total</td>
<td>463802</td>
<td>60748.347</td>
<td>&lt;.0001*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Parameter Estimates

| Term | Estimate | Std Error | t Ratio | Prob>| |t| |
|------|----------|-----------|---------|-------|-----|-----|
| Intercept | 0.2222946 | 0.000745 | 298.48 | <.0001* |
| Were bullied on school property[0] | -0.104383 | 0.000652 | -160.0 | <.0001* |
| sex[Female] | 0.044592 | 0.000648 | 68.87 | <.0001* |
| grade[9th] | -0.002096 | 0.000866 | -2.44 | 0.0148* |
| grade[10th] | 0.0030447 | 0.000869 | 3.50 | 0.0005* |
| grade[11th] | 0.0038603 | 0.000894 | 4.32 | <.0001* |
| race4[White] | -0.017161 | 0.000780 | -22.01 | <.0001* |
| race4[Black or African American] | -0.011668 | 0.000179 | -9.90 | <.0001* |
| race4[Hispanic/ Latino] | 0.0120099 | 0.000105 | 11.34 | <.0001* |
| Were bullied on school property[0]*sex[Female] | -0.014641 | 0.000647 | -22.61 | <.0001* |
Exhibit #5

Response Felt sad or hopeless

Effect Summary

<table>
<thead>
<tr>
<th>Source</th>
<th>LogWorth</th>
<th>PValue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were bullied on school property</td>
<td>5788.068</td>
<td>0.00000</td>
</tr>
<tr>
<td>sex</td>
<td>2197.632</td>
<td>0.00000</td>
</tr>
<tr>
<td>race4</td>
<td>575.623</td>
<td>0.00000</td>
</tr>
<tr>
<td>grade</td>
<td>82.076</td>
<td>0.00000</td>
</tr>
<tr>
<td>Were bullied on school property*sex</td>
<td>68.520</td>
<td>0.00000</td>
</tr>
</tbody>
</table>

Summary of Fit

- RSquare: 0.092118
- RSquare Adj: 0.092101
- Root Mean Square Error: 0.428411
- Mean of Response: 0.281363
- Observations (or Sum Wgts): 461454

Analysis of Variance

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
<th>Prob &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
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<td>8593.246</td>
<td>954.805</td>
<td>5202.276</td>
<td>&lt;.0001*</td>
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<tr>
<td>Error</td>
<td>461444</td>
<td>84961.611</td>
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<tr>
<td>C. Total</td>
<td>461453</td>
<td>93284.857</td>
<td></td>
<td></td>
<td>&lt;.0001*</td>
</tr>
</tbody>
</table>

Parameter Estimates

| Term                                | Estimate | Std Error | t Ratio | Prob>|t| |
|-------------------------------------|----------|-----------|---------|------|---|
| Intercept                           | 0.3744717| 0.000916  | 408.62  | <.0001*|
| Were bullied on school property[0]  | -0.132997| 0.000803  | -165.6  | <.0001*|
| sex[Female]                         | 0.080588 | 0.000797  | 101.11  | <.0001*|
| grade[9th]                          | -0.01967 | 0.001059  | -18.57  | <.0001*|
| grade[10th]                         | 0.003022 | 0.00107   | 2.82    | 0.0047*|
| grade[11th]                         | 0.0127671| 0.00111   | 11.60   | <.0001*|
| race4[White]                        | -0.041039| 0.000959  | -42.77  | <.0001*|
| race4[Black or African American]    | -0.011851| 0.001449  | -8.18   | <.0001*|
| race4[Hispanic/Latino]              | 0.0437751| 0.001302  | 33.62   | <.0001*|
| Were bullied on school property[0]*sex[Female] | -0.014021 | 0.000797 | -17.59  | <.0001*|
Sources


