**Addiction: Technology’s Stranglehold on Teenagers**

**By**

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[the Acknowledgments page is optional. It is a nice place to thank the faculty, friends, and family members who have helped you reach this point in your academic career. This section should be no more than one page in length.]

**PROBLEM STATEMENT**

Humans have been relying on technology for the better part of the last decade, with so many people incorporating technological devices such as cell phones, video game consoles, iPad/tablets, and computers into their daily lives. Recent studies show that the average screen time has risen significantly in the past two years, showing that Americans spend an average of more than 5 hours a day on their devices. (Hughes-Castleberry, 2022) Although some people may argue that the use of technology has done more positive things for people than negative, there still seem to be issues that exist in which both teens and adults have decided to limit their physical interactions, outside time, and reading to gain better knowledge for school. A problem that exists is how much of an impact the increased technology usage can lead to long-term effects on a person’s mental and physical well-being.

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**PROPOSAL SUMMARY**

Technology usage amongst humans has become a problem in our society. There have been too many times in recent years, in which teens and young children are constantly staring at their phones, scrolling through the Internet, or playing video games for hours. The main purpose of this research study is to highlight the key components that contribute to the overuse of technology to understand where the problem truly lies. During the research process, my focus will be to observe teenagers in their daily routines to determine what actions may lead to possible mental health concerns. The question that will be answered in this study is,” What are the effects of increased technology usage on teen’s mental health?” With this study, the plan is to gather strong, sufficient evidence that will prove to the younger demographic that if they don’t balance their time spent on using technology, it could possibly lead to serious damage to their brain.

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**INTRODUCTION**

The incorporation of technology into our society has drastically changed how humans operate in their daily lives. Every day, people are using devices to enhance their ability to read documents, write essays, promote their businesses, entertain themselves in their spare time, and even communicate over various platforms. Understanding the signs and reasoning behind why humans rely on technology is important because it helps doctors, teachers, parents, and children themselves take a hard look into the mirror and realize that if they continue to rely on using technology so heavily, it could potentially lead to mental-health issues.

Background of the Study

In today’s landscape where technological devices such as game consoles, smart tv’s, Chromebooks, and cellphones are constantly being developed by companies, the usage rate for these devices has also gone up. Levounis describes teenagers addiction to technology to drug addiction. In other words, the more they consume use of their devices as a daily part of their life, the harder it could be to convince them to let it go or take some time away from it (Levounis, 2022).

Purpose of the Study

The purpose of this research proposal is to explore the increased usage of technological devices and gadgets on the mental well-being of teens.

Research Question

The main question that will guide this study is:

1. What are the effects of increased technology usage on teenager’s mental health?

Summary

This study will discuss the impact of increased technology usage amongst teens and young adults. Identifying the signs and reasoning behind this issue could help lead to potential solutions to a better balance for them. The information discovered could help to answer the question, "What are the effects of technology dependency on teen’s mental well-being?

**LITERATURE REVIEW**

Technology’s constant presence in human daily activity has become increasingly concerning and harmful to their growth and development. The problem with having so much technology at our disposal is that it can lead to a dependency problem. The use of Facetime, text messaging, social media apps, and Zoom has caused us to lose touch with face-to-face communication, and as a result, individuals have struggled to land jobs or develop solid relationships amongst their peers in the long term. YouTube, Facebook, Twitter, Instagram, and Snapchat are examples of these individualized portals of information. Humans require an emotional connection for our psychological health needs, and these platforms fill the human need for connection(Sweet, 2022). In this literature review, the information will be presented in different categories that highlight the usage and implication of technology over usage. The six different sections will highlight solidarity, social networking, psychological stability, educational literacy, digital entertainment, and insomnia.

***II: Solidarity***

Although digital communication is seen as a strong alternative to long-distance communication, it’s actually doing more harm to long-term health. Social communication is fundamental to humans (Pandya and Lodha 2021). The idea is that social connection amongst humans has been influenced by the use of digital platforms to provide them with a way to limit the amount of face-to-face interactions that they so desperately want to avoid. The reliance on digital devices such as phones and tablets have only supported the idea that humans rely too much on technology because they prove to be such a “safe haven” to individuals who may struggle with communicating with people in a large setting (Pandya and Lodha 2021). Social connection is essential to the mental well-being of people. While views on the use of technology being an “alternative” to physical communication, social media use has seen a rise in its popularity, whether it be for connecting with people from long distances, posting about your personal life, or using it as their gateway to start some trouble Dwyer(2020).

***Social Networking***

Social media platforms are presented as outlets that adolescents use to communicate or post about their life on a daily basis(Johannes and Dielin, 2020). In a qualitative study that examines adolescents, Johannes and Dielin(2020) discovered that teens had mixed opinions about how much of an effect social media had on them. By utilizing direct lines of questioning, Johannes and Dielin (2020) determined that 24% of them stated that social media had mostly negative effects. Likewise, in a similar study that was conducted by Pandya and Lodha(2021), they utilized meta-analysis that covered both teens and adults during the lockdown. Their study determined that the effects of screen time depended heavily on the activity that the participant was engaging in at the various times. For example, according to their research, people who tend to spend much more time on social media tend to be less happy than the ones who spent less time on those platforms. Finally, in an exploratory study that analyzed both teens and young adults, Dyer(2020) found out that the age group's intensity level is determined by the kind of digital technology usage that they engage in. Using supplemental questions that were posted on the internet, Dyer (2020) discovered that Type 1 users admitted to being strongly dependent on technology for social networking and social communication. Based on these three research studies that were conducted, some similarities stood out amongst them. When it came down to their methods in which they executed their study, all 3 groups utilized supplemental questions to gather data as it pertains to finding out digital technology use. However, unlike the Dyer(2020) study and Johannes and Dielin(2021) studies, Pandya and Lodha (2020) examined both teens and adults. Therefore, the responses to their research proved to be much different and it presented a much broader viewpoint on the kind of impact technology usage can have on different age groups in society. Furthermore, Pandya and Lodha(2021) research study was focused primarily on how the COVID-19 pandemic may have been related to possible dependency on digital technology for social connection. Overall, these three studies were able to determine that the need for social networking and connection is heavily predicated on the usage of digital devices and platforms to provide that experience that many people don’t get. Also, since the arrival of the COVID-19 pandemic and subsequent lockdown, the emphasis on social distancing has only pushed that dependency even further in order for us to still remain social.

***Psychological Stability***

The overuse of technology has had a profound impact on the mental health of numerous people. In an observatory study that examined both children and adolescents, Pandya and Lodha(2021) discovered several significant impacts of excessive screen time on mental health. With the use of physical tests, Pandya and Lodha learned that participants in these age groups depicted signs of increasing complaints about irritability, inability to concentrate, and an impaired emotional and social intelligence. Furthermore, in a similar study that examined both older and younger adults, the National Library of Medicine(2020) discovered that there were several potential impacts that technology use could have on the health of the brain. Using MRI researching tasks, the National Library of Medicine determined that frequent use of digital devices can heighten ADHD symptoms, interfere with both the social and emotional intelligence, and can lead to an increase in social isolation. Finally, in a qualitative study that focused specifically on teenagers, Xiang(2021) found out that there may be a connection associated with family stress and technology dependency. Xiang (2021) was able to determine that loneliness has some significant impact on why teens utilize technology so much. In other words, when adolescents feel socially isolated, the allure of internet searching and social media scrolling becomes something like their “safe haven.” All three research studies came to similar conclusions as to what kind of effects technology use has on mental health. However, only the Pandya and Lodha(2021) and the National Library of Medicine(2020) performed physical tests and observed the participants conducting daily activities. This helped their studies be more accurate-based and it allowed the researchers to see the signs that occur, rather than asking people questions. Overall, these three studies support the idea that human’s dependence on technology can cause some serious effects on their mental well-being.

Educational Literacy

Academic education is one of the most prevalent reasons why technology is so important in our society. However, academic performance can still see its success be negatively impacted if students continue to rely on technology to get through homework.  Ramirez(2021) expresses the idea that the use of technologies such as video games, laptops, smartphones, and tablets has had more of an impact on younger children daily. Younger children having access to digital devices and the Internet supports the idea that technology reliance for various forms of entertainment and educational purposes can cause someone to depend on way too much. While viewpoints on introducing technology to children early, student grades can see some signs of slippage, as relates to forms of lack of sleep, decreased study habits, and a lack of focus on academics and more focus on entertainment.

***Digital Entertainment***

Video game usage amongst youth is not a new phenomenon, but the recent dependency on how much people use it has increased.  In a qualitative study examining both elementary and middle students, Ramirez(2021) found that the participants had alarming experiences due to their love for gaming. Using an online questionnaire, Ramirez (2021) was able to determine more than 50% of all the students claimed to have a video game addiction. In addition, more than 70% of them confessed that they were aware of the time spent playing video games after 9:00 pm, which caused them to lose hours of sleep on the weekdays. Similarly, in an exploratory study that analyzed both adolescents between the ages of 15-25, Dyer(2020) learned that the intensity level percentage is determined by the kind of digital technology usage that people engage in. Using supplemental questions that were posted on the internet, Dyer (2020) discovered that Type 1 users admitted to being strongly dependent on technology for entertainment reasons.  One of these factors did include the act of video game play to provide a sense of excitement and fun to their life. Finally, in a cross-sectional study examining young adults, the National Library of Medicine(2020) discovered how fast the reaction time was due to playing violent video games. The National Library of Medicine was able to establish the fact that playing violent video games causes a delay in how fast the person can recognize a happy face. Both Dyer (2020) and the National Library of Medicine (2020) conducted studies that were based on physical and verbal observations in order to collect sufficient data. Specifically, Dyer et al. (2020) study grouped the participants in 3 separate categories that each depicted a specific use for technology.  However, the study that was conducted by Ramirez (2021) relied more heavily on gathering statistical data which would be used to determine the percentage of people who have the most negatively affected by video games.

***Insomnia***

Staying up at night to search the Internet, talk on the phone with friends, and spend excessive amounts of time on our video game consoles can often lead to a lack of sleep. In a qualitative study that examined both elementary and middle school students, Ramirez(2021) found out that young students have trouble getting sufficient amounts of sleep during the weekday, causing them to struggle academically. Ramirez determined that 12.7% of students were only getting less than 8 hours of sleep a night, with 8.5% of them being 4th graders, and 23.5% of them being seventh graders. Additionally, in a cross-sectional study that examined both adults and adolescents, the National Library of Medicine(2020) found that excessive screen time disrupts sleep, which can lead to negative cognition in the brain. The National Library of Medicine determined that adolescents who engage in extensive screen time experience greater sleep disturbance. As far as adults are concerned, they were categorized as possibly experiencing less efficient sleep and poor sleep quality when utilizing their smartphone excessively. Lastly, in an observatory study examining children and adolescents, Pandya and Lodha(2021) learned that during the COVID-19 lockdown, young people experienced greater physical and mental struggles that hindered their well-being. Pandya and Lodha determined that due to the increase of screen time during the lockdown, students were showing signs of an inability to concentrate, multiple recorded absences, and a clear disturbance in their sleep cycle. In conclusion, , both the National Library of Medicine (2020) and Pandya and Lodha (2021) conducted studies that focused on observing adolescents on a physical level to determine whether or not, technology use had a profound impact on the lack of sufficient hours of sleep and alertness on a daily basis. Ramirez’s (2021) approach to the study focused heavily on young elementary and middle-school students who experienced a lack of eight hours of sleep during the weekdays of school. Yet, these studies support the main idea that human dependence on technology is very alarming and impacts daily life activities

Summary and Conclusions

Over the last couple of years, there has been an extensive effort to conduct more research studies that focus on how much of an impact technology usage has had on society. While there have been signs in the research that shows the need for social connection is important to the well-being of humans, excessive amounts of screen time dedicated to our digital devices and video game consoles still leads to serious mental health effects that could potentially be long term. The National Library of Medicine(2020) suggests that there need to be more research studies developed that would observe the different uses of technology as it pertains to human society. The purpose of this research proposal is to explore the impact of overreliance on technological machines and gadgets on the mental well-being of teens.

**METHODOLOGY**

In this chapter, we will be discussing the methodological strategies that would be used to gather evidence and sufficient data for this study. The purpose of this research study is to serve as a catalyst and provide strong evidence that answers the question, “What are the effects of increased technology usage on teen’s mental health?” The following sections will detail the participants that will be involved in the study, the type of research strategy that is carried out, and identify potential limitations that could hinder the process.

Population

The target population will be teenagers who are in the age range of 13-18. The reason why this particular age group is being chosen is that teenagers are the main users of technology in today’s landscape.

Sampling and Sampling Procedures

When planning out who we will get to participate in the study doctors at the selected high schools will all get a call to set up a meeting. I will then provide a breakdown of what the research study is based on and will discuss the plans on how the experiment will be executed in order to get the necessary data needed to conduct a full analysis.

Materials and Data Collection Procedures

For this study, since we are trying to determine what are the effects of technology on the mental well-being of teenagers, there will be two ways in which we will carry out this approach. The first thing we will do is conduct an observational study. The idea behind this kind of study will focus on viewing the selected participants within their normal everyday situations. In order to go about this the right way, each team member and medical nurse will all be assigned to a specific student. Once they are assigned, we will inform the participants that they're allowed to go back and resume their normal life as usual, while we observe how they function using technology. As for the researchers themselves, they will be responsible for keeping an accurate record of each moment in which their student utilizes their technological devices, which includes the time duration, the action in which they are performing, the event in which they are using it for, and what kind of device they use the most. This will help document the key observations needed for later use in this study and eventually lead to developing aa good conclusion in the end. The second approach that will be executed is presenting a pre/post test survey to our participants. This test will be provided to the participants at the beginning of the study to get an idea of what we should potentially look for, and then once the study is done, we would like to present them with a post-test to document potential changes or confirm any answers that they may have given us during the beginning of the study.

Instrumentation (if applicable)

In order to obtain the answers that we are seeking, the research team decided to utilize The Boston Project ministries teen mental health survey to experiment with our participants. In order to gain permission to use their survey, some of the researchers and school nurses that will be involved in the study will meet with representatives from the Boston Project to discuss the plans for why we want to use their survey and hopefully, they will grant us permission to implement their survey for the research. This survey is comprised of two sections in which the questions are mostly centered around the potential causes of mental health issues among teenagers. This survey will focus on asking teenagers how they cope with their mental health issues and it would also ask them questions about seeking help if they so choose to do so. The questionnaire is estimated to take up to about 20 minutes to complete, which I feel honest reflection of what they truly think. The survey is also comprised of about 20 questions in the first section and 6 questions in the second section.

**Data Analysis Plan**

As we are planning to analyze the data that is collected during this research study, the focus will be centered on breaking down the key common attributes that are displayed amongst each of the teen participants as documented by the researchers who were tasked with observing them. In other words, since this will be an observational study being conducted, the actions and traits that are displayed amongst the teens will be critical in determining how much impact technology ology changes their mental stability. Along with that, the survey that we plan to use will be important in the beginning of the study and after the study. The answers that are received in the beginning will be compared to the post answers that will be recorded at the end.

**Limitations**

As far as what might hinder our plans to have a successful research study, the team believes that they might run into the idea that some of the students who plan to participate in the study might end up dropping out during the process depending on how long it may take. The thing is if the study is set to be conducted over a three-week period, the students might not want us to observe them for that long, due to the potential of privacy and the fact that they have personal lives that they want to get too as well. Also, another potential roadblock that may give this study some trouble would be the target population that will be sought out. The fact that the focus is strictly on teenagers within the 13-18 age group may not warrant strong evidence to support our claim, because we are only getting a certain group of the spectrum. In the future, scientists and medical doctors might have to extend their target audience to adults that are 25 and older and who also may suffer from mental health issues and an over-reliance on technology.

Ethical Procedures

For the research study, the plan going is to seek out potential participants was all based on getting in contact with the school medical physician and the parents of the students that we may want to use for the study. The reason why the team wants to talk with the medical nurses that they're going to be the ones who can inform us of all the students who they believe show signs of serious mental health issues and the ones who they feel don’t necessarily show serious concerns. From there, we can start breaking down who these students are as a person, how they interact what others, and what is the reasoning behind why they may be displaying mental issues. Once we narrow down the potential participants for the study, then the plan is to speak with the parents of the students involved and inform them of the research study that will be conducted. During these sessions, both the parent and student will be given a breakdown of everything around which the research study will be centered, why the student is being considered to participate, and what the potential outcome of the study could do in the long term. If the parents decide that they will allow their child to participate in our research study, we will provide them with a parent-consent form so they could sign it as written proof of them granting us permission to allow their underage teenager to be in the experiment.

Summary

For the methodology, the plan going into conducting our research study will be carried out using two approaches. The first approach will be an observational study which will be centered around a medical doctor and research scientist being assigned to observe a specific student participant over a three-week period. During this time, they will be responsible for keeping a written report of any potential signs and concerns that they witness among the test subject. This will allow us to keep these data records in hand to be used later during the data analysis and conclusion session. As far as the second approach, the plan is to use a pre-test/post test survey that will contain questions about the participants mental well-being and how they cope with dealing with their issues. The survey that will be conducted is coming from the Boston Project miniseries team. The research team are going to meet with the representatives from the Boston Project miniseries and discuss why we want to use their survey for our study, in hopes that they will allow us to use it for our data collection. The target age group for this research study is going to be teenagers who are in the age range of 13-18. In order to get them to agree to participate, we will plan to meet with both the parents and students together to inform them of our plans for the research study. This will be very important in not only gaining their trust and cooperation, but it will help us legitimize and reach out to people who may be dealing with serious mental health issues as a way for them to discuss what they are going through, and potentially seek the help needed to get better. If the parents agree to let their teenager participate, parent-consent forms will be sent out to all the parents so they can sign their child up to be a part of the study.

**DISCUSSION AND CONCLUSIONS**

Discussion/Conclusion

In the end of the study, we were able to determine that technology usage amongst young adolescents is extremely high. The survey that we conducted showed us that most students tested out that they relied on technology for social communication and entertainment the most out of all the 5 categories that was given. We understood why the use of social media and facetime has become so important today. These platforms allow us to engage with various people over long distances and it’s a great way to still engage in face-to-face verbal communication, even though we aren’t in each other’s physical presence. However, the lack of physical communication has shown to have a negative impact on how young people engage in an interview setting. Most interviews today are conducted in a physical setting, but with the lack of in person social interaction, the individuals who go in for the interview usually don’t be successful. In addition, we were able to discover that the main source of entertainment amongst the age group was video games and streaming apps. These are probably not seen as a huge surprise, because most of our favorite tv shows and movies are all shown on apps such as Netflix, HBO Max, Hulu, Paramount Plus, and Disney + just to name a few. We determined that this wasn’t really a cause of concern, but it can become a cause of concern due to the lack of outside time. With the rise of video game consoles continuing to take over, potential limitations of physical activity such as playing sports outside, exercising, or enjoying nature will start to see a huge decline in the next few years. All in all, the use of technology in our lives will probably never see a decline for years to come. Everything that we do daily involves the use of a digital device in some shape or form. Whether it’s cooking, cleaning, communicating with friends, entertaining ourselves, or just laying down resting, we have so many devices at our disposal that help us accomplish those daily tasks. Technology dependence will probably always remain high because of this, but what we can do is devise ways in which we can balance out our usage time and focus on man-made philosophies that could still accomplish the same goal. For example, when it comes to entertaining ourselves and engaging in physical health, I suggest that we should investigate taking a walk around the neighborhood. Furthermore, parents could take their kids outside and teach them how to ride a bike, play a game such as Hopscotch or tag with their friends, or take them to the park to engage with other children on their age level. This would allow them to have some physical interactions with the same exact people that they would meet online while playing the game, and it would help them burn some necessary energy that would otherwise be kept inside if they would sit in the house all day. Furthermore, parents would be able to engage in physical activities which could help their mental and physical health to avoid going “crazy” and risk losing touch with reality while stuck inside the house. Finally, I think that we as young adults need to start putting a time limit on how much we scroll on social media and our cell phone messages daily. There should be no way in which we spend more time looking down at our phones, and less time trying to learn things that could benefit us in our daily life. I think that we should set a time of about 5 hours a day of screen time every day. This would include our cell phone usage, video game usage, or computer usage unless you got schoolwork to do. 5 hours of screen time just for pure entertainment/social interaction would be beneficial to our mental health, because we would allow our brains to not get burnt out so fast and our thought process would be much stronger. It would also benefit our physical well-being because we would be getting up and performing other tasks such as cooking, playing sports, or walking outside which would help our weight gain remain low.

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**Appendix A: Title of Appendix**

INSERT A SCREEN SHOT OF THE BOSTON SURVEY. IT WILL BE A FIGURE SO YOU NEED TO LABEL IT AS SUCH AND THEN INCLUDE IT ON THE LIST OF FIGURES PAGE.