

A Content Analysis: Investigating Adolescents' Wellbeing under the COVID-19 Pandemic
on the YouTube Platform

Zihang Bu

Mount Saint Vincent University

Halifax, Nova Scotia

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Abstract

This study focused on adolescents, to investigate how the COVID-19 pandemic influences their wellbeing by analyzing the content on the YouTube platform. The study also investigated if YouTube provides a helpful way to help the public to provide protocol for young people dealing with public health emergencies such as COVID-19. This study tries to answer three questions by investigating YouTube video content: 1) How is the COVID-19 pandemic influencing the life of adolescents? 2) What are adolescents' feelings when they are in "quarantine," "self-isolation," or on "stay-at-home" orders, and, 3) What kind of coping strategies did they have for dealing with the negative influence of the COVID-19 pandemic? This study applied a content analysis as the research method. This involved collecting data from the public social media platform YouTube and analyzing it by using an inductive approach that facilitated the emergence of codes and categories from the data. This study demonstrated that the COVID-19 pandemic influenced adolescents' lives in different ways, including the change of education methods, the discussion of friendship, the loss of significant life events, and increased time of using technology. The COVID-19 pandemic negatively affects the adolescents' emotions and feelings, including promoting a sense of fear, loneliness, and loss of motivation. However, most adolescents have found creative ways to cope with the limitations caused by the pandemic.

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Introduction

“All over the world closed down schools, public transport, and almost all social and economic activities to stop people from moving around.” This is how the magazine *The Economist* (“New World Curriculum”, 2020) described the situation of taking preventative measures when countries around the world fell under the shadow of the coronavirus. Coronavirus has another formal name called COVID-19 typically indicating the infectious disease, which was first noticed from cases in Wuhan, the People’s Republic of China, on December 31, 2019 (WHO, 2021). COVID-19 is caused by a respiratory pathogen, the coronavirus named SARS-CoV-2 (WHO, 2020 April). The virus has been spreading globally since the first worldwide outbreak in February. As of October 30, 2020, according to the Weekly Operational Update, there were 44,888,869 confirmed cases and 1,178,475 confirmed deaths in the world (WHO, 2020). The most common symptoms of COVID-19 are fever, dry cough, and fatigue. 80% of people who get infected could recover without hospital service, but 20% of people who get COVID-19 could turn severely sick and need oxygen support, including 5% of those who might become critically sick and require concentrated medical care (WHO, 2020 April).

In October of 2020, some countries in the world announced that they were facing the COVID second wave, which means a new series of lockdowns and quarantines might be possible in the winter of 2020 and 2021. Prime Minister Justin Trudeau spoke to Canadians saying that the four biggest provinces had to deal with the second COVID wave (Newton, 2020). Montreal and Quebec City went back to the red/maximum alert with a significant

number of rising cases. Private gatherings and having visitors at home were not acceptable with the exceptions of caregivers or service providers, these new rules were intended to help stop the second wave (Lowrie, 2020). On November 1, Prime Minister Boris Johnson also announced the one-month lockdown for England against the second wave of the COVID-19 pandemic with one million confirmed cases in the U.K (Reuters, 2020). From the first outbreak in December 2019 until the present, people have been maintaining a lifestyle of isolation for nearly one year. Moreover, the second wave outbreak of COVID-19 appears to be deteriorating people's wellbeing. McElroy (2020) pointed out that people were mentally getting tired of official and unofficial forms of lockdown and finding it harder to cope than at the beginning of the pandemic. Thus, it is crucial and necessary to ascertain people's health status during the pandemic and, in particular, their mental health.

Moreover, Adolescence is an important life period that involves transiting from childhood to adulthood including significant physical, psychological and social transitions (Gilles, 2014). YouTube is the most prevalent online platform for adolescents (Chaffey, 2020) and it is a sensible resource to reveal peoples' experiences (Rottenberg, Ray, & Gross, 2007; Sangeorzan, Andriopoulou, & Livanou, 2019). Therefore, this study focuses on the adolescent group to investigate how the COVID-19 pandemic influences their wellbeing by analyzing the content on the YouTube platform. In addition, this research also investigates if YouTube might be useful in providing information that might assist in guiding the creation of public protocols for young people dealing with a public health emergency. This study tries to answer following questions through investigating YouTube video content:

1. How is COVID-19 influencing the life of adolescents?
2. What are adolescents' feelings when they are in "quarantine," "self-isolation," "lockdown," or on "stay-at-home" orders?
3. What kind of coping strategies did they have for dealing with the negative influence of COVID-19?

Literature Review

What are COVID-19 restrictive measures?

At the beginning of the breakout of COVID-19 in China, we saw the largest quarantine and the most restrictive measures applied throughout China. The City of Wuhan, which is the city which initially had the most confirmed cases in China, was in lockdown for two months because of the COVID-19 pandemic (“Lockdown”, 2020). The Chinese government’s emergency measures that were put in place to slow the disease’s spread were:

1. Isolating confirmed cases
2. Sealing off cities
3. Contact Tracing
4. Quarantining the people who were in contact with confirmed cases (“How Bad Will It Get”, 2020).

Those measures proved to be effective in preventing and controlling the spread of COVID-19 disease. Therefore, the WHO agreed with the strategies that the Chinese utilized and suggested that other healthcare systems could learn from China’s lesson (“The Right Medicine for the World Economy”, 2020). Consequently, the advice that WHO gave the public to prevent COVID-19 spreading in the community was to avoid crowds, wear a mask, and maintaining at least a 2 meters distance from person to person (WHO, 2020 October). From the first worldwide outbreak of the COVID-19 pandemic until now, people have been keeping up with those restrictive measures in their life.

However, there are a number of terms that might be confusing when people discuss the use of the restrictive measures of this pandemic. Using Terms “(self-) quarantine,” “(self-) isolation” or “lockdown,” as synonyms might be inappropriate because these terms actually represent a variety of orders from a government authority to restrict movements of people by ordering residents to stay at home or to work in essential business (“Stay-at-home order,” 2020). To clarify these concepts further, a “Stay-at-home order” indicates the mass safety measures in a disease outbreak, which might be the appropriate term to indicate the restrictive measures. Further to this, the WHO (2020 April) defines “isolation” and “quarantine” as “Isolation means separating people who are ill with symptoms of COVID-19 and/or have tested positive”, and “Quarantine means restricting activities and/or separating people who are not ill but may have been exposed to COVID-19.” Therefore, “isolation,” “quarantine,” and “stay-at-home order” are different in definition and in application. However, the public often loosely use “isolation,” “lockdown,” and “quarantine” to indicate the measure that people who do not have the possibility of infection stay at home or work at limited places, which is actually the “stay-at-home order.” (Sedensky, 2020). In this study, we would like to explore how those restrictive measures of COVID-19 aka “stay-at-home” orders influence adolescents’ wellbeing.

Why Are Adolescents Important?

Adolescence is a specific time in life that is important in learning knowledge and skills, as well as building capacities to manage emotions and relationships, while acquiring attributes and abilities. Adolescence is a really crucial period that transiting from being a

child to becoming an adult (WHO, 2020 October), additionally it is also an important time for developing and maintain social and emotional habits which are significant elements contributing to mental wellbeing (WHO, 2020 September). The WHO (2020) indicated that there are one in six people in the world age 10-19 years and half of the people who have mental health conditions see them starting by 14 years of age. However, most of these conditions are in a form in which they are not detected and treated. The results of neglecting adolescents' mental health conditions is that they will go untreated into adulthood where it is likely to impair both physical and mental health (WHO, 2020 September).

The Psychological Effects of Pandemics

Research related to the psychological effects of pandemics like the Covid-19 have been explored in the past. A virus like COVID-19 that could cause widespread transmission is not an isolated event in human history. The relationship between the pandemics and their psychological effects is an important field that researchers want to explore. The following quote from a case study (Pefferbaum et al., 2012) of the H1N1 pandemic summarizes the mental status and behavioral health of people experiencing a pandemic and how this pandemic can impact people's lives:

“.....coping with multiple uncertainties can generate confusion and anxiety as well as health-risk behaviors..... The limited availability of antiviral medicine and vaccines, difficulties created by potential large-scale absenteeism of the workforce due to illness or to

the implementation of community mitigation strategies..... potentially complicate an environment threatened by a public health emergency.” (para. 5)

Those words vividly reflect the mounting pressure of a pandemic on every person and even the whole society.

Van et al. (2020) investigate the psychosocial effects of the Ebola virus disease, which recorded over 28000 cases and 11000 deaths between 2013-2016. People are likely to experience psychological effects due to the infection's traumatic progression, fear of death, and experience of witnessing others dying. Survivors of the Ebola virus might undergo mental consequences due to feelings of shame or guilt, that result from transmitting the infection to others. Further to this, survivors might be blamed and stigmatized by their communities so that survivors might even be threatened, attacked, evicted, neglected, or excluded from their families and communities because they were seen as infected and dangerous.

A similar study was conducted by De Roo et al. (1998), where they found that most of the participants in this investigation had experienced taking care of a sick family member before getting infected. Moreover, most of those had not heard of Ebola before experiencing the Ebola symptoms and did not believe the Ebola had infected them. As it was a new disease at that time, fear, denial, and shame occupied people's feeling. Similar to Van's (2010) study, after recovering, survivors were abandoned by families or friends more than they expected. Further to this, witnessing other people's death in the hospital, which is isolated and lonely,

negatively influenced their mental health, as well as they were affected by the reluctant attitudes of hospital service.

An investigation by Rubin et al., (2010) on the public response to the swine flu (H1N1) outbreak shows that the higher level of anxiety about the possibility of contracting swine flu is associated with lower satisfaction with the amount of information available about swine flu.

Another useful example to note is the significant outbreak of Severe Adult Respiratory Syndrome (SARS) in 2003 (which was compared to the COVID-19, as having similar symptoms and infection characteristics at the beginning of the COVID-19 outbreak). There were several studies on the psychiatric and mental health issues related to the SARS outbreak. One report (Cheng et al., 2004) from Taiwan showed that most cases were diagnosed as adjustment disorder, organic hallucinosis, and organic manic disorder during the acute phase of treatment. Furthermore, one study in Hong Kong (Mak et al., 2009) revealed that the incidence of psychiatric disorders was 58.9% after the outbreak of SARS as well as one-fourth of patients had Post Traumatic Stress Disorder (PTSD), and 15.6% of those had a depressive disorder. Therefore, we could demonstrate that pandemics have historically had negative impacts on people's mental health.

How Does the COVID-19 Pandemic Affect the Public's Mental Health?

It is also evidenced that COVID-19 could negatively influence the public's mental health status, in diverse ways. Kavoor (2020) found that several social stressors have been rising during the pandemic, including anxiety over one's health, fear of losing loved ones,

loss of social connections, loss of employment, and homelessness, all of which might trigger more serious mental illnesses like depression and anxiety.

A group (Ahmed, 2020) in China undertook an experiment using online surveys to examine the mental health status of Chinese people under the COVID-19 pandemic at the beginning of the outbreak. The majority of those were from Wuhan city, which was the center of COVID-19 pandemic in China. The results showed more crucial anxiety, depression, and harmful alcohol use, and a decline in feeling mentally well than the data collected before the outbreak of COVID-19. According to this study, twenty-nine percent of participants were suffered from different forms of anxiety, and more than thirty percent of participants were having different forms of depression, which both are related to the lockdown at home due to the COVID-19 pandemic.

Bauerle et al. (2020) comparing mental health results before and after the COVID-19 outbreak demonstrated that the symptoms related to a mental health burden, including depression, generalized anxiety symptoms, and distress, were more prevalent than in the situation before the outbreak. They also indicated this pandemic brought effects of generalized anxiety symptoms and distress on patients.

Additionally, some special groups in society including vulnerable, marginalized, and front-line people might be faced with worse physical or mental conditions. According to the emotion hypothetical model of psychological crisis intervention (Zhang et al., 2020) for the COVID-19 epidemic, of the population who contacted people from susceptible areas, diagnosed patients, fever symptoms patients, possible infected people, the staff who were

from the infectious disease center, and COVID-19 patients themselves were likely to have the symptoms of anxiety and fear. For example, healthcare workers (Huang & Zhao, 2020) were reported as the higher risk population for low sleep quality, which is found to have an association with generalized anxiety distress and PTSD (Casagrande et al., 2020). In addition to this, the population who lack the infectious disease knowledge and have unhygienic habits, those who face significant changes and inadaptability, those who lack mental health assessment and self-judgment methods, and those who lack physical and mental health knowledge and psychological coping methods are also likely to feel anxious and fearful.

Junior et al. (2020) suggest that society should consider containing the coronavirus and providing the vulnerable population's supports at the same time. The COVID-19 pandemic increases the difficulties that refugees have already faced. Corley (2020) expressed that refugees who are amongst the world's most vulnerable people, have been adversely affected during the COVID-19 pandemic, because many refugees live in impoverished settings, including crowded camps or urban settlements. This means that it is hard for them to keep their homes safe and practice social distancing. The fear related to overcrowding, disruption of sewage disposal, low hygiene standards, poor nutrition, negligible sanitation, lack of access to shelter, health care, public service, or safety contributes to the psychological and physical risks many refugees face in addition to COVID-19 infection. It is also a hard time for homeless young people due to the limitation of accessing reliable and affordable health care, unstable residency, and higher prevalence of chronic illnesses or an already damaged immune system (Lima et al., 2020).

Vaishnavi (2020) indicates that the people who have mental illness are particularly vulnerable at this time. The daily stressful events easily influence them, and they cannot fully cope with those stressful events. However, Lima et al. (2020) indicated that the task of mentally ill people is that it might be difficult for them to recognize and respond to the threat of infection. Therefore, it might be difficult for the people who have mental illness to navigate complicated pandemic situations.

In addition, Junior et al. (2020) pointed out that depression, suicidal ideation, smoking, and binge drinking are mental health concerns emerging from centuries of systemic racism against indigenous people. Because of the COVID-19 pandemic, the lack of specialized mental health services and experts, demanding access to valid information, and the loss of inputs might lead to negative feelings and could exacerbate the mental health concerns mentioned above.

Consequently, the influence of COVID-19 on the whole society is comprehensive and truly affect the mental health of the public.

How Do “Stay-at-Home” Orders/ Restrictive Measures of COVID-19 Influence the Public’s Mental Health?

The discussion outlined above considered the psychological effects of the Coronavirus pandemic itself rather than the effects of the "stay-at-home order", "quarantine", "isolation" or "lockdown." Even though restrictive measures have mediatory effects on the relationship between mental health status and the Coronavirus pandemic, there is less research about how the measures directly influence people's mental well-being.

While the COVID-19 might have negatively impacted the general public, and initiated fears and anxieties, Bauerle et al. (2020) mentioned that the restrictive measures such as “stay-at-home” orders or restrictive measures announced by governments might further contribute to the erosion of the general population's mental health. Zhang et al. (2020) thought the outbreak of COVID-19 and the restrictive measures might lead to widespread fear and panic, especially stigmatization and social exclusion of confirmed victims, survivors, and relations, causing further adverse psychological reactions, including adjustment disorder and depression.

In addition to these adverse social and mental health effects, sleeping quality emerged as another variable impacted by the implementation of the “stay-at-home” orders. One study (Wang et al., 2020) explored the mental effects of the COVID-19 outbreak on more than 1,000 participants in 194 cities of China. It showed that 84.7% of participants spent 20-24 hours per day at home. Wang's study found that the impacts of prolonged periods of staying at home might influence the sleep quality and related mental health. Another investigation in Italy (Casagrande et al., 2020) revealed that 57.1% of participants described having poor sleep quality and found an association between sleep quality, and generalized anxiety distress with PTSD related to the COVID-19. A web-based study by Huang & Zhao (2020) indicated the greater prevalence of generalized anxiety disorders and low sleep quality in the Chinese public during the COVID-19 pandemic. They also point out that participants who stayed at home were focusing on news related to COVID-19 outbreak for more than 3 hours a day,

which likely led to anxiety symptoms. Hence, the public's mental health is affected terribly by the restrictive measures/ "stay-at-home" orders of COVID-19 pandemic.

Children and Adolescents in the COVID-19 Pandemic

The Centers for Diseases Control and Prevention (2021) declared that the COVID-19 pandemic has impacted many adolescents' social, emotional, and mental wellbeing, and they published a parental kit to support adults to help adolescents in recognizing challenges to their social, emotional, and mental wellbeing. It is possible to assume that adults have a more stable mental status than children and adolescents who have not had adequate time to develop mature coping strategies to deal with the uncertainties arising from the COVID-19 pandemic situation. Several aspects of life that are essential for children and adolescents were changed, including the closure of school and entertainment, postponed outdoor activities, cancelled high school proms, and graduation ceremonies delivered online. These things might not be necessary but mark important milestones in the lives of young people and might bring pain and mental anguish if these youth do not have the chance to participate. It is believable that COVID-19 brought a new understanding of how this widespread virus and pandemic might badly influenced people's life. In fact, a worldwide "lockdown", prolonged "quarantine" and "isolation" could not have been imagined before the first breakout of COVID-19. Montag and Elhai's (2020) report indicated that children and adolescents got higher scores on anxiety, physical injury fear, social phobia, generalized anxiety and panic disorder than was the case before the outbreak. This demonstrates a strong linkage between the COVID-19 pandemic on the mental well-being of children and adolescents' mental wellbeing. Fegert et al. (2020)

corroborate these findings as they suggest that fear of infection and the imposition of restrictive measures have the potential of dramatically impairing the mental health of children and adolescents. Fegert et al. (2020) argued that the loss of peer contact, anxiety, and decreased chances for stress regulation are the main concerns for children and adolescents and not the opportunity to focus on personal development and family cohesion during this pandemic. Imran, Aeshan, and Pervaiz (2020) also thought that children are uniquely vulnerable as they could not fully understand this pandemic and have not developed coping strategies to mentally and physically escape from the negative influences of this situation. Even though many families were experiencing the effects of isolation, they were unable to remediate the effects of this isolation because the familiar coping strategies like taking personal space, visiting with other people, and entertainment activities were inaccessible. The compounded impacts of this might have contributed to increased stress amongst family members. Sahoo et al. (2020) presented a similar opinion that children and adolescents were having difficulty recognizing the significant changes in their world's as it related to the COVID-19 pandemic. Further to this, adolescents are more likely to express the strong emotions because of full-day parental attention or supervision, which was unusual and could cause irritation. Therefore, the above suggest that an analysis is necessary of the effects and impacts of COVID-19 restrictive measures on children's and adolescents' wellbeing.

A further review of the literature is important in order to develop a more comprehensive understanding of the factors that could potentially influence the well-being of children and adolescents who are experiencing the restrictive measures put in place during the COVID-19

pandemic. To this end, we will be undertaking a review of social isolation and loneliness, economic influences, physical effects, sleep quality, and screen time.

Social Isolation and Loneliness

Some researchers (Loades et al, 2020; Imran, Zeshan & Pervaiz, 2020; Hossain, Sultana & Purohit, 2020) are discovering the impact of social isolation and loneliness on children's and adolescents' mental health in the context of COVID- 19. Social isolation, which is caused by "stay-at-home order", might not severely affect adults' everyday life but could have a significant impact on children and adolescents. While adults may be having symptoms of anxiety and feeling fear, children and adolescents are facing more challenges such as social isolation and loneliness during this pandemic because of the closure of schools, the limitation of outdoor activities, and following the "stay-at-home" rules. In addition to this, there may be additional feelings of uncertainty as children and adolescents are in circumstance which they had not encountered before the year 2020.

Nicholson (2009) defines social isolation, that might arise from contexts as they have been described above, as the following:

"a state in which the individuals lack a sense of belonging socially, lacks engagement with others, has a minimal number of social contacts and they are deficient in fulfilling and quality relationships. (p.1346)"

Depending on the definition, it seems that social isolation may be unlikely in current society, because people are able to use technology to meet others online. However, one study indicated that, even though people can meet online, more than one-third of adolescents still

presented high levels of loneliness during the pandemic (Loades et al, 2020). Alspach (2013) described how loneliness is like a subjective feeling of isolation, not belonging, or lack of companionship. For example, loneliness could be explained as “long sleepless nights with countless reminders in holiday seasons” that make people feel like they lack meaningful engagement with others. Loades et al. (2020) concluded that social isolation or/and loneliness have a relationship with the symptoms of several mental problems, including depression, anxiety, panic, suicide ideation, and eating disorders. Further to this, loneliness may minimize people's resolve and self-discipline and make them satisfy the self-destructive behavior, including drinking and eating to excess (Cacioppo & Patrick, 2008). Loneliness not only has the potential to impact the health of the immune and cardiovascular systems, but could also undermine the quality of sleep. Thus, the influence of social isolation and loneliness caused by pandemic measures on children and adolescents should not be ignored or underestimated.

Economic Influence

The COVID-19 pandemic not only exerted a powerful influence in the way it has spread between people but also in the way it affirms tremendous economic impacts and disparities. The immediate economic recession might be the one potential consequence of implementing restrictive measures in order to prevent the wide-spreading of COVID-19. Moreover, we should be aware that there is always an association between the well-being of children and adolescents and broader economic problems. Lee et al. (2013) indicated that changes in macroeconomic conditions can negatively influence family structures and parenting

strategies. During the pandemic, negative parental behavior could be caused by adverse economic development, which might lead to harsher parents and greater incidence of domestic violence. During the "Great Recession" 2007-2010, children were reported at a higher risk of physical, emotional, and sexualized violence, which severely impacted children's mental and physical health (Huang et al, 2011). Additionally, low-income families might be unable to access the basic services because their provision has changed during this pandemic. Services that might be impacted could include online or telephone medical/psychiatry appointments. Therefore, these modalities are not favorable for the children and adolescents who have already had mental or physical health concerns as well as placing more survival pressure on low-income families.

Families from all socio-economic classes might be impacted by the COVID-19 pandemic as parents have to deal with the situations of losing jobs or business, accumulated workload and reorganizing work that might contribute to an intense and stressful family environment. Honig's (2002) research shows that children are able to feel the fear and are able to sense adults' emotional state when parents are around them because parents are their essential source of feeling secure and being well emotionally. Honig's (2002) article also mentioned that young children could feel a sense of stress from their parents and enact their worries in ways that might be misunderstood by the caregivers. Therefore, the evidence above has demonstrated that no matter what the economic influences to the whole families or the emotional implication on their parents directly, children and adolescents will be influenced in psychological and physical ways, even though they are not exposed directly to

the practical consequences of the economic recession, such as job loss, change of working hours, decreased salaries and so on.

Physical Effects

Physical activity is essential to wellbeing. Friel et al. (2020) recognized three factors: moderate-to-vigorous physical activity, time spent in sedentary behavior, and time spent sleeping may increase children's and adolescents' risk of developing obesity, type 2 diabetes, and mental health concerns. Obviously, "stay-at-home" orders or restrictive measures would not help children and adolescents to keep healthy on these aforementioned factors. Increased time spent engaged in sedentary behavior, which is caused by restrictive measures, contributes to the loss of opportunities to come into contact with nature, and decreasing physical activities. Hartig et al. (2014) pointed out that nature plays an important part in building good immune responses, reducing stress, increasing physical activity, and developing social connections. Further to these benefits, exercising in a natural environment leads to a decreased maladaptive thought pattern (related with the depression), which is the evidence that demonstrates the beneficial influences of physical activity on emotional health (Bratman et al., 2015). In addition to this, physical activities help to improve the symptoms of mental disorders. To this end, Jerstad et al. (2010) conducted a six-year longitudinal investigation showing that physical activity decreased the risk of worsening the symptoms of depression, while O'Neal, Dunn, and Martinsen (2000) provided biological evidence for physical activity's beneficial impact that the neurotransmitters related to depression could be positively affected, resulting in the reduced risk for depression.

In addition to this biological evidence, physical activity was found that might change the brain structure in relation to physical and psychological development. Pajonk et al. (2010) suggest that regular exercise can have a positive effect on hippocampal neurogenesis and memory, which is crucial for children's and adolescents' brain development. According to MRI (Magnetic Resonance Imaging) results, Mittal et al. (2013) hypothesized that the volume of the hippocampus and parahippocampal, which are medial temporal lobe structures, influences the health of the youth who were identified as psychotic diseases. They assumed that activity levels, including sedentary, light, moderate, and vigorous activity were connected with those medial temporal lobe structures, as well as that a sedentary lifestyle might be harmful to brain development and emerging symptomatology. It is important to note that physical activity was negatively impacted during the pandemic with the implication that it might cause the possibility of mental health issues or increasing the symptoms of psychotic disorders in children and adolescents.

Sleep Quality

In addition to the various health benefits it provides, physical activity is also associated with the quality of sleep. Hedlund et al.'s research (2019) suggested that the patients who have already had sleeping problems, including low sleep efficiency and long latency to sleep onset, should participate in physical activity because their study demonstrated exercise usefully improved sleeping quality. Therefore, it is believable to assume that people who have low physical activity affected by the COVID-19 pandemic might experience sleeping problems as well. The quality of sleeping is linked with the well-being of children and

adolescents' groups. The investigation of Jung and Jin (2019) concluded that potential risk of socioemotional difficulties (including increased rates of withdrawal, anxiety, depression, social problem, attention problems, and aggressive behaviors) are related to sleep problems in children. Issues that arise from unsettled sleep could be considered as one factor that contributes to low socioemotional development. In addition to this, a study (Elizabeth et al., 2019) pointed out that sleep difficulty is one of the significant elements connecting with suicidal ideation. Sleep disturbance was significantly related to thought problems, which is another unique factor leading to suicidal ideation. After all, decreased physical activities, increased sedentary behaviors, low sleep quality, and the loss of contacting nature, which are the potential consequences of containment and restrictive measures for preventing infection, are all cited as significant factors that could potentially have a negative influence on children's and adolescents' physical and psychological well-being.

Screen Time

The lack of quality sleep brought about by a lack of physical activity is compounded by increased screen time. There is evidence (Kim et al., 2020) showing that greater screen time during the daytime negatively affects the sleep quality, which means the destructive influence of screen time could be experienced across multiple days. Due to the "stay-at-home" order, the opportunity of using electronic tools for children and adolescents was increasing. People were anxious to stay updated on information about the COVID-19 pandemic by scanning social media or reading news online. Thus, we cannot neglect exploring the effects of social media, technology use, and internet safety on children and adolescents. Montag and Elhai

(2020) reported that 29.58 percent of children and adolescents participating in their study spent more than five hours per day online during the COVID-19 pandemic. It was argued by Montag and Elhai (2020) that his amount of screen time might trigger an addiction to the internet and smartphones. Dong et al., (2020) showed that internet usage in China had increased during the COVID-19 pandemic including recreational internet use's duration and frequency this research revealed that 33.37 percent of subjects were identified as problematic internet users. Imran, Zeshan, and Pervaiz (2020) thought that excessive exploration of media coverage of the pandemic, by adults, in front of children and adolescents during the pandemic might contribute to an aggravated mental distress because even though social media and electronics provide information related to public health, the possibility of sensationalism and spreading misinformation could not be excluded. Mustafaoglu et al. (2018) indicated that the overuse of electronic technology has been associated with the risk of developmental and behavioral problems, including lack of attention, aggressive behavior, physical inactivity, obesity, and sleep problems. Furthermore, the overuse of digital technology escalates the risk of cyber-bullying, which was demonstrated in a cross-national analysis on the relationship between social media use and cyber-bullying of young people (Craig et al., 2020).

Although disease containment and restrictive measures keep children and adolescents away from the COVID-19, the mediators are likely to lead them to an unhealthy status, which might include the sense of social isolation and loneliness, adverse pressures caused by economic influence, decreased physical activities, low sleep quality, and overuse of screen

time which were all exacerbated by the restrictive measures used to address the COVID-19 pandemic.

Overall, the information above provides strong evidence that “stay-at-home” orders/ restrictive measures of COVID-19 could have an influence comprehensively and diversely on adolescents’ well-being.

Methodology

Research Question

Taking the aforementioned summative information of my literature review into account, we can hypothesize that the COVID-19 pandemic could have a negative effect on adolescents' health. In this study I applied content analysis on the YouTube platform to investigate adolescents' wellbeing under the COVID-19 pandemic. The purpose of this research was to investigate if YouTube provides a useful way to help the public administrators in making a protocol for young people who might be dealing with public health emergency. This study would answer following questions to achieve that purpose:

1. How does the COVID-19 influence adolescents' life?
2. What are adolescents' feelings when they are in "quarantine," "self-isolation," "lockdown," or on "stay-at-home" orders?
3. What kind of coping strategies do they have for dealing with the negative influence of COVID-19?

This study used an inductive approach of content analysis (Hsieh & Shannon, 2005) because we do not want to be constrained by preconceived ideas or assumptions. Further to this, the research on this topic, and using this approach, is very novel, and few people have studied the impact of COVID-19 restrictive measures on adolescent mental health by using the social media content analysis method, especially on YouTube. In utilizing inductive content analysis, we do not need preconceived categories before conducting the design, as the themes and categories flow and emerge from the data resources. Furthermore, the benefit of

undertaking the inductive approach of content analysis involves collecting information directly without using predicted categories or theoretical perspectives. Categories emerge from data during the data analyzing period in the inductive content analysis, which may help us better understand the phenomenon (Hsieh and Shannon, 2005).

What is Content Analysis?

At the beginning of the 20th century, researchers used context analysis as an analytic technique in qualitative research and quantitative research. (Berelson, 1952) Lately, people mostly applied content analysis into the qualitative field by coding text resources to make categories and describe statistics (Morgan, 1993). It is important to have a comprehensive understanding of content analysis. To this end, Weber (1990) illustrated that content analysis not only counts words but also deeply investigates the language use, which aims to categorize a large amount of content into efficient categories that represented similar meanings. Elo et al. (2014) mentioned that content analysis is an objective and systematic research method having the meaning of describing and quantifying phenomena. Hsieh and Shannon (2005) defined qualitative content analysis as a research method that subjectively interprets text data content by processing the coding of systematic classification and identifying themes and patterns. White and Marsh (2006) pointed out that content analysis is systematic and rigorous by analyzing the information that emerged from research processing. In 1989, Krippendorff announced, "*content analysis is a research technique for making replicable and valid inferences from texts to the contexts of their use*" (p. 403).

As can be noted from this brief survey of the literature, it is believable that content analysis has a different definition when applied in different areas and contexts. For the purposes of this study, content analysis is an inductive and systematic research methodology describing phenomena by making inferences from analyzing and coding data resources which reflects one particular group's situation in society. This definition is suitable for this study, which is trying to examine the phenomena of how COVID-19 affects adolescents' lives and how restrictive measures influence their health and represent the status quo of this group. As can be noted by the subsequent discussion, content analysis is a highly flexible methodology (Cavanagh, 1997; White & Marsh, 2006) because it applies to many programs in information studies. Hsieh and Shannon (2015) mention that content analysis has been applied widely in health research. They agreed that content analysis is flexible and indicated it is a practical method for researchers to improve and extend knowledge of the experience of humans' health and illness. Agosto & Hughes-Hassell (2005) examined the everyday life information-seeking patterns of urban young adults by collecting the data from logs and semi-structured group interviews. Additionally, Kracker and Wang's examination (2002) used content analysis to investigate students' perceptions of research and research paper anxiety by assembling data from students written work about research paper experiences. Therefore, content analysis is a method that is suitable for variable fields, which could assume that content analysis is also a proper and legitimate fit for this study about investigating adolescents' personal experiences of COVID-19.

Hsieh and Shannon (2005) illustrated three distinct approaches of applying content analysis through their theoretical studies related to the end-of-life research area, including conventional, directed, and summative content analysis. They indicated that conventional content analysis is appropriate for the phenomenal theory or literature that is limited. Moreover, the aim of conducting inductive content analysis mostly applies to studies which describe particular phenomenon. Therefore, this study fits the conventions of content analysis methodology, which also conforms to induction characteristics. A study (Reese et al., 2016) explored the people's reflection about nature media on YouTube using conventional content analysis, using identified terms to result in targeted videos, and collecting viewers' comments from every video they chose. The results indicated that it is possible that sensory access to nature dramatically influences perceptions of people's wellness, which is also evidence that using content analysis of YouTube resources could promote a solution for the general public. The study shows that using conventional content analysis methods to explore people's emotional feedback by collecting information on YouTube is feasible and increases the possibility of making public health recommendations, which is suitable to the purpose of this study.

Why We Chose Social Media Content Analysis?

Depending on the global social media research summary (Chaffey, 2020), more than half of the world is now using social media. Four point fifty-seven billion people worldwide are now using the internet, and more than 364 million people have joined online activities over the last 12 months (Chaffey, 2020). Due to the infection containment and restrictive

measures, including “lockdown,” “quarantine,” and “stay-at-home” orders, online and digital activities increased considerably during the COVID-19 pandemic. Using data that is available online and available through social media for the purposes of my study is valid and legitimate because people are likely to use more time to scan, share, comment, and communicate on social media than with other people (including researchers) during the COVID-19 pandemic.

Content analysis on social media is designed to cover a wide range of areas, including mental and physical health research. For example, researchers collect information on Tumblr to explore non-suicidal self-mutilation (Eliseo-Arras & Brous, 2019), assemble data on Twitter to study loneliness (Mahoney et al., 2019), and examine tweets under the suicide hashtag on Twitter to explore suicide behavior (Arendt, 2019). Further to this, Ahmed et al. (2019) collected data from one social media platform, Twitter, to develop an insightful understanding of public views on the H1N1 pandemic during 2009. They mentioned that social media platforms might give researchers a chance to distribute information and review public views and collect opinions. Ahmed et al. (2019) argued that Twitter has an abundant data source, and it is likely to dig in-depth understanding of public responses to special events like the infection’s outbreak and highlights the potential meanings for public health and researchers. Miguel et al. (2017) pointed out that popular social media platforms like Twitter and Instagram “allow near-effortless creation and dissemination of multimedia, and provide searchable content archives that can be easily and anonymously accessed by entering key terms and afford the creation and maintenance of anonymous profiles dedicated to specific topic areas for disseminating content to like-minded online communicators and

subcultures.” It is important to note that these aforementioned elements may positively affect the reliability and authenticity of conducted content on social media platforms. In addition, the content on social media has the potential to reflect users’ emotional state, mental illness, and social engagement. De Choudhury et al. (2014) were able to predict participants’ postpartum depression according to participants’ posts and comments on Facebook to in-depth analyzing their postnatal experiences. For Reece and Danforth’s experiment (2017), they used the photos posted on Instagram to screen for depression, it is important to note that these results show that it is possible to find behavior denoting depression on Instagram posts. They suggested that visual imagery as a self-disclosure mechanism is attributed to psychological health disclosure on Instagram by using individual profiles to predict the identification of depression’s symptoms. Thus, collecting data on social media platforms could be undertaken in this research’s exploration of emerging emotional and mental concerns.

Beyond that, content analysis on social media can help the public or researchers understand social facts and trends. For example, to explore the availability and replenishment of analgesic and sedative drugs in Thailand (Pinyopornpanish et al., 2018) and investigate cheat meals, one of the popular dietary trends on the Internet (Pila et al., 2017). Margot et al. (2018) used YouTube to study infertility-related videos and measured the purpose, tone, demographic, and fertilized characteristics of infertility videos using coding and content analysis.

Another benefit of accessing data through social media is that researchers can access certain groups' experiences and understand their needs and listen to the authentic voice of their emotional experiences in such topics as: Exploring stigma and social support for people with mental illness and bipolar disorders (Alexandra et al., 2019); investigating negative and traumatic experiences of people who experienced labor and birth (Van et al., 2020); and understanding the emotional experiences of unaccompanied refugee children (Neag & Supa, 2020). Social networks could also be used to explore scientific knowledge in areas such as breastfeeding (Monkarzel, Rehm & Daly, 2020) and childhood obesity (Harris et al., 2014).

Thus, it is possible to collect information on social networks for content analysis because, since people in the networked world may hide their true identities, things that they cannot express in real life they may freely express on the network. Moreover, when people have to stay at home because of restrictive measures during the pandemic, time spent on social networks becomes longer especially for teenagers, who have available online learning devices, and have also undoubtedly increased their time spent on social networks.

Therefore, this study is specifically designed to use social media content analysis to answer my research questions as mentioned above in that it focuses on the period during the pandemic isolation where young people were spending more time surfing the internet at home using electronic devices than during the non-pandemic period. As a result of this, the information found on the internet will be richer than in the past. Therefore, it is appropriate to explore the feedback of young people's feelings about COVID-19 on the Internet. Finally, conducting one-on-one interviews during an epidemic are now relatively dangerous for

public health reasons, thus providing an ethical rationale for conducting research using content available through social media.

Why We Chose YouTube as a Data Resource for Content Analysis?

In the United States, YouTube and Facebook are the most prevalent online platforms and Instagram usage has also increased significantly within the last couple of years. Seventy-four percent of children and adolescents who are around 8 to 15 years old have social media profiles and use the YouTube Platform (Chaffey, 2020). Rottenberg, Ray, and Gross (2007) have stated that analyzing the content of YouTube videos is sensible because it is possible to extract emotional and attentional engagement in video content. For example, a YouTube content analysis (Devendorf, Bender & Rottenberg, 2020) successfully revealed that depression is associated with biological or environmental conditions. Sangeorzan, Andriopoulou, and Livanou (2019) also gathered the data from YouTube video to investigate the individual's experience by sharing on a vlog on YouTube about severe mental illness, whose results indicated that the behavior of vlogging about mental illness might positively influenced the people who are experiencing severe mental illness because it provides peer support, self-efficacy and reducing self-stigma. Hence, it is feasible, for the purposes of this study, to use YouTube as a data source to explore experiences and mental conditions.

Overall, using a YouTube content analysis to investigate adolescents' wellbeing under the COVID-19 pandemic is workable as this study brings this new process of social media content analysis as a means of exploring individuals or groups' health status during specific times of social, contextual and economic upheaval.

Research design

This research designed based on the qualitative content analysis procedures provided in White and Marsh's study (2006) as well as the following the seven steps of the qualitative content analysis scheme mentioned in Weber's research published in 1990: preparing research questions, deciding analyzed sample, defining the categories that could be applied, organizing the coding process and training, conducting the coding process, and dictating trustworthiness and analyzing the results.

The purpose of this research is to investigate how the pandemic COVID-19 influences adolescents' wellbeing. Therefore, the keywords "adolescent" and "the COVID-19" are the virtual variables for this research and require further clarification. Adolescence is generally correlated with the teenage years. Even though adolescents' physical, psychological, or cultural expressions might begin earlier and end later, adolescent years include teenage years ("Adolescence," 2020). Therefore, researchers could also use the keyword "teenage" to help research on YouTube. In this study, researchers also want to ascertain how adolescents felt about the restrictive measures during the COVID-19 pandemic. Depending on the content of the literature review in this research, the people often use "isolation," "lockdown," and "quarantine" to indicate the measures that people who do not have the possibility of infection stay at home or work at limited places (Sedensky, 2020). "Stay-at-home order" means an order from a government authority to restrict movements of people by ordering residents to stay at home or to work in essential business ("Stay-at-home order," 2020). Therefore, we could use the keywords "quarantine," "self-isolation," "lockdown," or "stay-at-home order" to

indicate the restrictive measures, which are used in the searching progress to help locate the appropriate videos on YouTube. The search parameters that align with these variables are represented by the ten sets of keywords entered into the YouTube search bar (see chart 1).

The researcher entered one set of keywords for each search. Therefore, the researcher entered keywords in the YouTube search bar 10 times. The researcher indeed searched every set of keywords. For example, the researcher entered "adolescents" and " COVID-19", which is one of the ten sets of keywords, into the YouTube research bar.

(Chart 1)

Research Keywords					
	“Adolescent” “COVID-19”	“Adolescent” “Quarantine”	“Adolescent” “Isolation”	“Adolescent” “Lockdown”	“Adolescent” “Stay-at-home”
	“Teenager” “COVID-19”	“Teenager” “Quarantine”	“Teenager” “Isolation”	“Teenager” “Lockdown”	“Teenager” “Stay-at-home”

Using the guidelines outlined by previous researchers (Seeley et al.'s , 2019; Szmuda et al. , 2020) in this area, I included the first 30 videos of every set of keywords' searching result were considered as the initial data resources because the evidence showed that 90 percent of users prefer to watch the first three pages of videos or equivalent to 30 videos of the searching results. Szmuda et al. (2020) conducted a study which discussed the quality,

reliability, and audience engagement of stroke-related YouTube videos. They chose videos by searching stroke-related keywords to narrow down the resources, and they record the first 30 videos, which is equal to the first three pages, for every keyword were selected to go into the next step. A similar data collection method was applied in Seeley et al.'s research (2019) where they used descriptive content analysis on YouTube to investigate the phenomenon of high-risk driving behaviors and intentions. The choice of using the first three pages of video results for each searching term is also supported in the studies by Carroll et al. (2013) and Montgomery & Yockey's (2018).

In this study, the researchers chose the first thirty videos by putting keywords and using the most common searching methods to view count and sort for relevance. The first 30 hit videos for each keyword or the first three pages of searching keywords results were recorded. Then the researcher recorded the research results of every set of keywords' searching but just the basic information, including title, upload time, and author name.

For controlling the time and age variables in this research, I selected the videos uploaded on YouTube within a half year of the first outbreak of the COVID-19 pandemic because it is valuable to investigate the early stage of the COVID-19 pandemic. Several articles demonstrated the importance of studying the early phase of the COVID-19 pandemic, including the mental health service, intervention measures, epidemiological features, and clinical characteristics (Koh et al., 2020; Thome et al., 2020) In this study, I preferred to choose the videos that people in these videos are from 10-19 years old that this age range is defined as adolescents by the World Health Organization (2021). Also, for the consistency

and the convenience of collecting data, I selected the videos located in North America, and preferred the videos using English.

Depending on the basic information of initial data resources (title, upload time, and name) and content of data resource, the researcher excluded the videos which were not uploaded within the half-year of the COVID-19 pandemic outbreak, the videos that do not use the language English, or/ and the videos that were not located in North America. In order to promote greater research accuracy, I also excluded the videos for which there was confusion surrounding the target location or/and peoples age.

Overall, I selected nine videos as the final data set, which met my requirements of having been uploaded within the first half-year, with an on-screen person whose age range was from 10-19 years old, locate in North American and speaking English. The adolescents' age and location can be determined by the data submitted by the creators of the videos. These videos have the following forms:

1) Videos uploaded by institutions or schools. Institutions or schools uploaded these videos for particular reason. The videos summarized the adolescents' different points of view through video-chat interviews.

2) News videos. Adolescents talk about feelings about the COVID-19 pandemic or introduce their life during the pandemic.

3) Vlog (the video blog or video log), which the medium is video. Adolescents recorded personal videos to show their personal life and express their opinion.

Here is detail information of the nine YouTube videos I chose as the data set:

1) *QuaranTeens - Teenagers Reveal What Being in Quarantine During Covid-19 is Really Like*

This video was uploaded on April 18, 2020. Nine adolescents in this video are talking about their experiences during the COVID-19 quarantine. As of April 21, 2021, this video had 103,102 views and 303 comments. The "author" of this video is SheKnows, which is an official channel exploring pop culture.

2) *What to Do as a Quarantined Teen*

This video was uploaded on March 16, 2020. This a personal vlog, which recorded the author's one-day life during the COVID-19 pandemic. As of April 21, 2021, this video had 9058 views, 53 comments, and 232 likes.

3) *QuaranTeens – Teens Discuss Quarantine – Mental Health, Depression, What Parents Can do to Help*

This video was uploaded on May 27, 2020. There are twelve adolescents in this video discussing how they are doing, after being quarantined for more than two months. As of April 21, 2021, this video had 20,037 views and 58 comments. The "author" of this video is SheKnows, which is an official channel exploring the pop culture.

4) *Day in My Life as a Quarantined Teen*

This video was uploaded on March 27, 2020, which is a personal vlog recording the author's one-day life during the COVID-19 pandemic. As of April 21, 2021, this video had 764,207 views, 1760 comments, and more than three thousand likes.

5) *Teenagers Reflect on Self-Quarantine and COVID-19*

This video was uploaded on April 8, 2020. It featured 14 adolescent students who were interviewed during the COVID-19 pandemic in this video talking about their self-quarantine, online school, and life. The "author" of this video is a high school channel, which is to share students' life, news, and opinions in this high school. As of April 21, 2021, this video has 806 views and 15 likes.

6) *'You're not alone.' How Teenagers are Dealing with Social Distancing*

This video was uploaded on April 15, 2020. It features nine high school students discussing remote study and social isolation and sharing some coping strategies in this video. The "author" of this video is a news institution. As of April 21, 2021, this video has 11,489 views and 110 likes.

7) *Teen Voices: Coping with the Pandemic*

This video was uploaded on June 17, 2020. It shows nine students talking about how the COVID-19 pandemic has impacted their lives in positive and negative ways. The "author" of this video is an institution which helps their members to live healthier lives. As of April 21, 2021, this video has 46,402 views, 61 comments, and 491 likes.

8) *Life of a Teenage Student in Quarantine*

This video was uploaded on April 24, 2020, which is a personal vlog recording the author's personal experience and opinion during the COVID-19 pandemic quarantine time. As of April 21, 2021, this video has 1,407 views, 64 comments, and 203 likes.

9) *Hear from Struggling Teens about How Covid-19 is Affecting their Mental Health*

This video was uploaded on August 7, 2020. It showcases 14 adolescents sharing how the COVID-19 pandemic has been affecting their mental health. The "author" of this video is an institution that provides support to adolescents who need help. As of April 21, 2021, this video has 5,436 views, 16 comments, and 56 likes.

This study used the conventional/ inductive approach of content analysis (Hsieh and Shannon, 2005) and selected the YouTube social media platform as the data resources of content analysis. The reasons why we chose social media content analysis and why we chose YouTube as the resource have been previously discussed in the methodology section.

I transcribed the content of each video's audio, and I transcribed each comment under each video. All the videos' audio content and all the comments under the chosen videos were recorded. Every transcript would be read several times and given comments, and notes to the parts that are significantly appeared. Then I conducted more detailed coding on the comments and notes which resulted in themes/codes emerging. Important terms/codes or the terms/codes which showed up frequently were recorded. Categories emerged after reading and reviewing recorded codes several times.

To increase the credibility and validity of the results. I applied triangulation within the process of analysis and discussion in this research. Triangulation (Patton, 1999) means applying multiple methods or data resources in qualitative research to promote a comprehensive understanding of one phenomenon. In this research, I cooperated the process of triangulation within my research to develop a comprehensive understanding of adolescents' wellbeing during the COVID-19 pandemic. I incorporated three types of data

resources to support the results and understanding, including the perspective of participants speaking in the YouTube videos, the perspective of participants who give the comments under the YouTube videos, and the perspective of literature review. Therefore, the results in this research have multiple resources to support them.

Ethical consideration

Moreno et al. (2013), indicated that for observational studies about YouTube videos, researchers do not need to ask for participants' consent if their videos are publicly shared. In this study, we would only select the videos that are shared to public and consequently did not require consent from the participants.

Research Results

Analysis

This section provides a detailed description of the analysis process and gives the related discussion that we thought is contributed to this research. This section demonstrated why these categories emerged and how the content of YouTube videos the researcher selected answered the research questions. There are three parts, and every part is structured and summarized depending on the research questions (following).

1. How is COVID-19 influencing the life of adolescents?
2. What are adolescents' feelings when they are in "quarantine," "self-isolation," "lockdown," or "stay-at-home"?
3. What kind of coping strategies did they have for dealing with the negative influence of COVID-19?

Further to this, I provide related discussion that is relevant to each question and deconstruct the understanding of the issues/problems we found during the analysis process.

Part one and part two analyzed the data resource by using the coding method of content analysis. Terms/codes that showed up frequently in video transcripts and given comments were recorded, and categories emerged from these terms/codes related to the research question. Here is the chart (see chart 2) showing how many times the important terms/codes showed up in the data resources and the relationship between the category and term/code.

Chart 2

	Categories	Codes/Terms	Times	
Part one:	Homeschooling	School/ Home school/ Online school	59(times)	
		Homework/Assignment	20(times)	
		Teacher	11(times)	
		Grade	4(times)	
	Screen Time	Tik-Tok/Instagram/Netflix	17(times)	
		Phone	6(times)	
		Screen/ Screen time	6(times)	
	Friendship	Friend/Friendship	42(times)	
	Family	Family	22(times)	
		Parent/Grandparent	17(times)	
		Sibling/Sister	8(times)	
	Life Events	Ceremony/Graduation/Enrollment	6(times)	
		Prom	4(times)	
		Birthday/Birthday party	2(times)	
	Part two:	Loneliness	Lonely	9(times)
			Isolation/Social isolation	7(times)
Social interaction			2(times)	
Fear		Be scared/scary	14(times)	
		Fear	6(times)	

		Be afraid	5(times)
	Unproductive/ Unmotivated	Motivation/Motivated	10(times)
		Productive	4(times)
	Surreal	Not real/surreal	6(times)
	Mentally unwell	Depressed/Depression	15(times)
		Mental health	14(times)
		Anxiety/Anxious	13(times)

Part 1

This part aims to answer the research question "How is COVID-19 influencing the life of adolescents?" by discussing the five categories that inductively arose for answering the research question:

1. Homeschooling,
2. Screen time,
3. Friendship,
4. Family,
5. Life events

Before I started the analysis of the data resources, I had the expectation, based on the literature review, of what some potential themes might be. For example, the literature revealed that issues around online schooling and screen time.

One of the restrictive measures of COVID-19 is closing the school and switching in-person education to online education, which is a significant change for young people. Taking online courses, over a long period of time, is a situation that children and adolescents had never encountered before the restrictive measures were put in place to combat the COVID-19 global pandemic. Therefore, it would be crucial to see if the reflections of the effects of online schooling on young people align with the predictions made in the literature review.

The second theme, that the literature review predicted was that adolescents might face increasing use of screen time. On this part, it would be interesting to see the perceived impact (whether positive or negative) of longer periods of screen time for children and adolescents. In addition to this, I wanted to know the quality of online education by hearing young people's thoughts and knowing if difficulties exist in online education. Young people might not be comfortable with this kind of education strategy, which is delivering knowledge and addressing homework in a virtual way. Moreover, some older students might miss some important events because of schools' closure, including a graduation ceremony, prom, and one last year studying and hanging out and socializing with their friends.

Therefore, these categories were predicted by the literature review and confirmed through this study because of their frequency as themes in the discussions of the Adolescents within the data resources.

- 1) Homeschooling

Plitnichenko (2020) pointed out that there are several challenges for the young students studying at home during the COVID-19 pandemic, including working processes, time management, gadgets shortage, isolation, lack of interaction, and so on.

In this research, most of the adolescents stated that the significant change of the learning and studying method through the transition from traditional schooling to online schooling. Therefore, the category "homeschooling" emerged.

For adolescents, the most significant challenge brought by the "stay-at-home" order is to change the traditional teaching method (learning at school) to the homeschooling teaching method (learning online). It is important for this thesis to understand what impacts this change had on adolescents.

Generally speaking, as can be seen from the following excerpts, adolescents miss the traditional teaching method, and they are looking forward to returning to school.

Adolescent: *"I miss school, I really do miss school, which is funny because being in school you wish you were out of school, but now that I'm out of school for a bad thing, it's just like, I miss it, I really miss."* (SMHSNow, 2020),

And,

Adolescent: *"I would do anything to be back in that classroom. I was sitting, hearing a teacher talk and being in person, and talking to my friends in class even though it was all so stressful at times. You know, that's what I really miss."* (SMHSNow, 2020)

Some adolescents reported that homeschooling provides more free time to manage, but teachers would arrange more homework for students, which students found stressful as a participant articulated:

Adolescent: “...you would expect it to be less stressful because you’d have more time to do homework somehow, I feel like teachers have been compensating by giving us more work.” (SheKnows, 2020 April)

Further support to this point is provided by a comment which got 123 likes in the comment chart and which stated that: “Teachers have been giving me 100+ assignments a week!” (SheKnows, 2020 April) Even though this is probably an exaggerated expression, it has been recognized and supported by many people.

Additionally, some adolescents gave some feedback about homeschooling that teachers would reduce class time and impart knowledge by increasing homework instead of teaching in class.

Adolescent: “So they’re cutting class time down and dishing out more homework, which isn’t great.” (SheKnows, 2020 April)

And,

Adolescent: “During this whole time, my teachers have been really flexible, especially with the amount of work they give.” (PBS NewsHour, 2020)

So, while homeschooling was placing greater demands on students, many adolescents pointed out that they found it difficult to keep their concentration with homeschooling. There

is no pressure, and no one else is responsible for helping them finish their homework. Some adolescents noted that there were distractions at home that might influence them so that they could not focus on learning and completing assignments, which is not easy for adolescent students as can be seen from the following three excerpts:

Adolescent: *"It is challenging to focus on my schoolwork because working in my room is really distracting."* (MindWise Innovation, 2020)

And,

Adolescent: *"Not one really to hold me accountable for doing my homework except for myself."* (SMHSNow, 2020)

And,

Adolescent: "For me, homeschooling has been really difficult. I have had a really hard time focusing, and I have been handing in assignments late... texting my friends during class. It is really quite awful." (SheKnows, 2020 April)

In addition to having difficulty focusing, some adolescents expressed that they do not have the stress of being self-disciplined and accountable, which also made homeschooling difficult:

Adolescent: *"I guess I do not feel the pressure of doing it anymore. I know how to do it... it is just kind of hard to focus. I just could be lying in bed instead of doing my homework."* (SMHSNow, 2020)

Some teenagers reported that the enormous task for them during online schooling is the lack of motivation:

Adolescent: *"Online school, OMG, is so hard because I do not feel motivated to do my homework."* (SMHSNow, 2020)

And,

Adolescent: *" ... It is sometimes hard to stay motivated when you are at home with all of these other distractions around you..."* (PBS NewsHour, 2020)

Online classes/ online schooling requires adolescent students to have the abilities that could self-control and self-discipline. Even for the students who have sufficient motivation, online classes/schooling might be difficult as is expressed by the following two participants:

Adolescent: *" ...like it's just that bad I mean am I learning? not really..."*

(SMHSNow, 2020)

And,

Adolescent: *"Why should I go watch that hour-long video, I can, just like, chill?"*

(SMHSNow, 2020)

Online and home schooling was especially demanding for the students who want to improve their grades as they thought that online classes could not help them improve their academic performance because they are not motivated when they are studying at home. They thought studying at school was a more convenient way to communicate with teachers and homeschooling made these personal interactions very difficult as the following student expressed:

Adolescent: *"My grade was not the best before the whole quarantine thing happened.*

And I was trying my best to bring it up and like study harder, and now that is the whole

thing has happened. I am personally pretty scared (for myself). When I was at school, I was more motivated to do everything. I always had a teacher in class that I could like easily communicate to and talk to." (SMHSNow, 2020)

A student described that online classes/ schooling had lost its original meaning. Except for the grades, when they want to recall high/ junior high school time after many years, the memory might be something about quarantine at home instead of any thoughts about school from home:

Adolescent: "when you look back on your junior year of high school, when you're like 40...you're gonna remember that you were at home because of corona" (SMHSNow, 2020).

Therefore, one of the key findings in this research is the change of schooling and teaching methods during the pandemic. For adolescents, homeschooling and online courses challenged them a lot. One challenge is the lack of motivation to engage in classes and finishing assignments. Cull's study (2010) agreed with this statement and indicated that it is common that online courses challenge the students' class engagement and motivation. This study pointed out that teachers might not be able to get nonverbal cues from students, which might reflect that students feel lost, depressed, or not enthusiastic. Simultaneously, teachers cannot share their feelings easily and might find it is challenging to express enthusiasm, encouragement, or concern. They also believed that students might underestimate the quality of online courses, including the fact that students might think online courses are easy to take, which is why some students prefer to disengage. This study mentioned that online courses

have high self-paced learning requirements, including self-discipline, effective time management, writing skills, self-directed work, organization and prioritization of effort, and require self-confidence in expressing ideas openly and acknowledging gaps in understanding through self-assessment and reflection. However, these requirements challenged adolescent students a lot if they do not have other help, and those are the reasons students feel homeschooling is hard.

2) Screen time

During the pandemic, the "Stay-at-home" order made adolescents spend much more time on screens. Zhao et al. (2020) found that school-aged children in China have more than three hours of daily screen time and less than 2 hours of daily outdoor activity because of the online schooling during the COVID-19 pandemic. Ninety-five percent of the parents worried about their children's eyesight because of the long-term screen time. Wang et al. (2020) also indicated that the increased digital screen time and limited outdoor activities are related to the emergence and development of myopia and could aggravate myopia symptoms during the COVID-19 pandemic. In addition to these studies that highlighted increased use of screen time, adolescents in this study expressed through their conversations that they thought they were engaging in increased screen time usage. So, the category "Screen time" emerged.

Adolescents pointed out that they spent more time on smartphones or laptops during the COVID-19 pandemic than before the beginning of the COVID-19 pandemic outbreak as is expressed in the following three excerpts:

Adolescent: *"I have been going on my phone 10 hours a day, on average."*

(SheKnows, 2020 April)

And,

Adolescent: *"10 and a half hour on my phone a day, that is really bad."* (SheKnows,

2020 April)

And,

Adolescent: *"...spending six to seven hours staring at a monitor can be really exhausting."* (Bru, 2020)

Some people expressed their agreement in the comments section linked to these videos and expressed that adolescents have too much screen time during the pandemic. This can be seen in the following comments:

Comment: *"My screen time is 15 hrs."* (SheKnows, 2020 April)

And,

Comment: *"My screen time went from 15 minutes a day to 9 hours a day."*

(SheKnows, 2020 April)

Moreover, there seemed to be a consensus among adolescents who stated that they spend lots of time on the screens. Fortunately, adolescents realized that having too much screen time might have negative influences on them. They communicated these concerns in the following excerpts from their discussion:

Adolescent: *"Now, there are complaints about too much screen time at my school."*

(SheKnows, 2020 April)

And,

Adolescent: *"... do not spend 10 hours on your phone or computer. It is a bad idea..."*

(SMHSNow, 2020)

And,

Adolescent: *"I do not think my eyes are ready for six hours of screen time, like, school and then after school, doing homework on the screen... I just do not think it is really healthy."* (SheKnows, 2020 April)

According to adolescents' words, their use of social media platforms or online media accounted for much of their increased screen time as some participants noted:

Adolescent: *"...scroll through TikTok, through Instagram, through Facebook, through anything for hours at the end..."* (Bru, 2020)

And,

Adolescent: *"... using Instagram, message, and TikTok..."* (SheKnows, 2020 April)

And,

Adolescent: *"I have been watching movies, texting people."* (SheKnows, 2020 April)

And,

Adolescent: *"Quarantine has also given me much more time to watch Netflix."*

(SheKnows, 2020 April)

And,

Adolescent: *"Lots of Netflix, a lot of music stuff because I like to do music stuff and Netflix and sleeping."* (SMHSNow, 2020)

Of course, adolescents realized that social platforms and online media have negatively impacted their lives. For example, an adolescent indicated that scrolling social media affected their speed of finishing their homework:

"I, for one, just choose between scrolling through Instagram or Tik-Tok, watching lots and lots of YouTube videos, and finally getting around to do my homework for the next day." (Bru, 2020)

Another adolescent stated that social media may affect the speed of completing things they wanted to do in a day and point out that social media platforms are addictive and might increase people's unnecessary shopping.

"The only reason that I have those things is that TikTok made me buy it, and I honestly probably would have finished today quicker if I did not have a TikTok, I get about thirty minutes of work done, and then I go on a Tiktok. it is a problem, and it is definitely an addiction." (Laurence, 2020)

Another adolescent was aware of social media platforms' addiction and trying to build a new habit to replace spending too much time on screen.

"I am into photography a little bit. I, kind of, figured, like, I should get a hobby because I should not just be like on Tick-tock the whole day." (SMHSNow, 2020)

Therefore, another key finding in this research is that the COVID-19 pandemic has caused adolescents to spend too much time on screens, which might negatively influence adolescents' health. Several studies have indicated that screen and internet usage during the COVID-19 pandemic is increasing (Montag and Elhai, 2020; Dong et al., 2020), and overuse

of electronic technology might aggravate young people's health (Mustafaoglu et al., 2018; Imran, Zeshan, and Pervaiz, 2020). For this task, UNICEF (2020) suggested that parents could implement the following tips to help their kids have a healthy balance between digital use and other things. It is vital for young people to communicate with their peers, so video games and social media are necessary. Parents could talk to their kids about online experiences and observe their general mood and happiness when using technology to make sure of their mental status. The WHO (UNICEF, 2020) recommended parents and their kids engage in active video games and online exercise classes together, which is a great solution providing both physical and entertainment that allows children to stay healthy at home and decreases the time focusing on the small screen.

In this research, social media were found as a significant reason that adolescents spent too much time during the COVID-19 pandemic. Even though the UNICEF (2020) mentioned that using technology is essential for adolescents to keep social connection, Gordon (2020) listed five ways social media might negatively affect adolescent mental health. The use of multiple social media platforms is more likely associated with depression than the amount of spending time online, and long-term use of social media platforms might be connected with the signs and symptoms of depression, including low self-esteem. Keeping up with everything online is the unspoken rules and culture for adolescents, which could pressure them and cause feelings of anxiety. Additionally, cyberbullying, slut-shaming, and other harmful online behaviors might cause anxiety for many adolescents.

There is no doubt that adolescents spend so many hours on social media and lose valuable sleep, lowering the immune system and damaging their physical health. Social media might lead to jealousy and envy in adolescents because they often do not realize people tend to share their positive things on social media, which could make them unsatisfied with their lives and feel big differences. There is also the communication issue occurring online because some social media cannot show facial expressions and the tone of voice, which could lead to misunderstanding. Besides, Gordon (2020) mentioned that social media is a real challenge for adolescents in different ways including increasing the risk of having depression, anxiety, sleep deprivation and making them be jealous and envy, which can support the opinion I mentioned above.

3) Friendship

Julie (2020) expressed that the most significant adjustment for children during the COVID-19 pandemic is not shifting to small-screen living but the change of friendship. Her interview demonstrated that technology dictated adolescent's friendships during this pandemic because the social interaction changed. Additionally, adolescents in this research expressed concern about their friendships. Therefore, the category "Friendships" emerged.

Adolescents in this research stated that the COVID-19 pandemic had changed their way of keeping friendships and narrowed friendship circles. Moreover, adolescents expressed their thoughts that they miss friends as is expressed in the following:

Adolescent: *"The hardest part about quarantine is not able to see my friends. I really have not seen them like a month and half, which is doing crazy."* (SheKnows, 2020 April)

And,

Adolescent: *"If I could do one thing on the outside right now is it would definitely see my friends."* (SheKnows, 2020 April)

Adolescents are likely to make friends face to face instead of doing this online. They missed the way that they usually engage in social interactions before the outbreak of the pandemic as is discussed in the following excerpt:

Adolescent: *"I like to talk to people, like in person. I like hanging out with people, talking with people. It has been hard to text my friends instead of going over to see them or seeing them at school."* (SMHSNow, 2020)

And,

Adolescent: *"I was missing my friends... I miss walking in the hall with them and just talking."* (SheKnows, 2020 April)

Even though technology could enable people to communicate online by using social software instead of contacting in-person, many adolescents, found that the communication between friends on social software is different from in-person communication as is expressed in the following:

Adolescent: *"One member of my group was talking about how not seeing their friends is kind of made them more depressed... because although you can (use) FaceTime, it is not the same as talking to people."* (Give Us The Floor, 2020)

Some adolescent students reported that quarantine made them unable to contact friends they are not familiar with and challenging to keep the friendship they used to have. These difficulties are clearly expressed in the following:

Adolescent: *"I guess this is too dramatic, it is a little dramatic, but some of my friends I do not know (them) well enough, but it is really nice to see them at school."* (SMHSNow, 2020)

And,

Adolescent: *"I had a friend at school who I used to like, he basically kind of tutored me, and now I cannot even contact him that anymore, and it's just not the same. "* (SMHSNow, 2020)

Making friends and keeping friendships during the COVID-19 pandemic made adolescents rethink the meaning of friendship and friends themselves and realized how important their friends were to them, as is described here:

Adolescent: *"I think this time makes us value our friends a lot more, makes us realize how sometimes we may have taken people for granted."* (SMHSNow, 2020)

Adolescents expressed that the COVID-19 pandemic influenced their friendships, and they noticed the importance of friendships during the quarantine.

Schab (Give Us The Floor, 2020) indicated why friendship is important to adolescents, especially during the COVID-19 pandemic. Adolescence is the developmental stage of life, which has two main goals. One is to separate from the family, and the second is to be individual and become one's authentic self and to find out who they are. However, the

pandemic blocked them from that right now. She said separating from their family is healthy and normal for adolescents because that is part of their development. Therefore, they need to be individual and need to be with friends. Even though they have social media and technology devices at home, they are still at home and stay away from their friends, which is not enough. If they are at home, they are not able to work with this developmental process.

This psychologist also pointed out missing friends is the reason why adolescents prefer to go back to school instead of homeschooling. The school is the opportunity for separation and individuation, and the school provides the chance to be with friends, be away from home and have a safe environment for them. Also, the school is the place that helping adolescents discover and explore themselves in different ways.

4) Family

Miller (2021) described that adolescents are different from the children who may be happy with full-time attention from their parents during the COVID-19 pandemic. Connecting with peers is one of the crucial developmental tasks for adolescents, which could be sensed above in the category "friendship" part. Therefore, being stuck at home with parents and siblings is frustrating for adolescents to handle. But Common Sense Media's survey (2020) showed that forty percent of adolescents feel more connected than usual with their family. In this research, adolescents expressed different points of view about living with family. It is essential to emerging a category related to the "family."

Adolescents thought spending time with family members increased because of the "stay-at-home" orders, which is really positive during the pandemic. They are available to spend

more time playing games and enjoying meals with family. These sentiments are clearly expressed in the following 4 excerpts:

Adolescent: *"We have a lot more meals together, which is really nice."* (SheKnows, 2020 April)

And,

Adolescent: *"I play chess with my family sometimes, it is pretty fun, and I also get to spend much more time with my family now. We are having all three meals of the day together. We spend more time. That is one of the only positives from the quarantine things, in my opinion."* (SMHSNow, 2020)

And,

Adolescent: *"Spending time with family, like replay so much more of board games now, which is awesome."* (SMHSNow, 2020)

And,

Adolescent: *"I'm spending more time with my siblings that have come back from college."* (SMHSNow, 2020)

However, some adolescents complained that spending time with family members could be annoying and exhausting because family members are the only people they could meet during the pandemic, and for some adolescents, they have to share the room with siblings or help to take care of the younger siblings. These concerns are highlighted here:

Adolescent: *"The only people you can talk to are your family, it is really bad..."*
(SheKnows, 2020 April)

And,

Adolescent: *"Sharing a room with my sister, it's very tough."* (SheKnows, 2020

April)

And,

Adolescent: *"I can't really go anywhere because one, the virus, two, my siblings don't have school, so I stay home and help watch them."* (Give Us The Floor, 2020)

And,

Adolescent: *"Being in one space with nine siblings at the same time, is insane."*

(Give Us The Floor, 2020)

Therefore, we could know that adolescents expressed their happiness that they are able to spend time with family members during this time. At the same time, adolescents stated their negative feelings about only spending time with limited people. Those indicated the contradictory situation that adolescents met during the pandemic, which should be pointed out in this research.

5) Life events

The Centers for Disease Control and Prevention (2021) described that adolescents had lost their significant life events during the COVID-19 pandemic, including birthdays, graduation, proms, funerals, vacation plans. They lost the opportunities to gather with friends and family to celebrate important life events or grieve in typical ways because of the social distancing, "stay-at-home" orders, and limits to gatherings. In this research, adolescents

reported how the COVID-19 pandemic influences them to engage in some life events.

Therefore, it is essential to build the category "life events".

The pandemic deprived senior adolescent students of celebrating their graduation ceremony, which is an unfortunate thing for them. These students expressed their frustration in the following quotes:

Adolescent: *"It is ruined the whole senior year, the whole idea of having my senior year, my last year of high school, which is supposed your funniest year, the year where you are supposed to go with your friends and stuff. All of that is pretty much canceled. It is ruined. It is no more."* (SMHSNow, 2020)

And,

Adolescent: *"Honestly, I am very upset. The coronavirus really affected me because it took away my senior year, and I have just been trying to push through."* (PBS NewsHour, 2020)

One adolescent indicated another reason they were sad about the ceremony's cancellation is they cannot meet their friends and celebrating the graduation with them, and this is clearly expressed here:

Adolescent: *"Now to know that graduation might be canceled or like prom might be canceled, it is really sad because those are like big senior year things that we get to do as seniors. It is not even sad that the events are canceled, but it is more than like we are not going to be with our friends."* (SMHSNow, 2020)

Additionally, senior students also face the problem of going to college. Because of the epidemic, senior students might not enter the college/university on time because the college/university may change the enrollment time and enrollment method due to pandemic severity, which is a negative experience for them because they may not have the same orientations as before. These concerns were expressed in the following:

Adolescent: *"I worry that I won't be able to go to college on time, or if I do, it will be nothing like it should be."* (MindWise Innovation, 2020)

Another student stated that the pandemic made birthday celebrations strange because people have to keep social distancing and celebrate the big day safely, which would not have been typical before the pandemic outbreak. These differences are highlighted in the following quotes:

Adolescent: *"my birthday is on the 14th, and so I went out on the 15th...it was weird because we got to the restaurant and there's so many tables open, but they're like we can't see you guys ...they were like setting two tables between every party, that was eating for social distancing, so that was that was strange that was kind of crazy..."* (SMHSNow, 2020)

And,

While major events like graduations and birthdays were being affected, adolescents were also not able to engage in domestic or international travel because of global COVID-19 restrictions. Their traveling plans might have been affected because of the restrictive measures, as can be noted below:

Adolescent: *"We were supposed to actually go to Hawaii, maybe like next week for the band, and that really sucks because the whole trek got canceled."* (SMHSNow, 2020)

The psychologist Schab (Give Us The Floor, 2020) stated that it is complicated for adolescents because they are losing their landmark events right now, including graduation, competitions, ceremonies, and proms, these are essential milestones for them. That is another key finding in this study that the COVID-19 pandemic is detrimental to their important life events. Rahman (2020) also mentioned that adolescents are missing out on their milestones. Adolescents had been looking forward to the important events for years, and they lost these events, which involves a form of grieving. Rahman (2020) suggested that teenagers look to the future after the pandemic and encouraged them to work on a vision of something that will be memorable and fun. Creating collages, making vision boards, and writing plans; they are encouraged to do these, as this will provide adolescents something to look forward to. The Centers for Disease Control and Prevention (2021) suggested that adolescents' family and friends help them find alternative, creative and safe ways to connect and support each other at a distance is essential. In this study, adolescents explored their interests during the pandemic to help them keep a positive outlook.

Part 2

This part of my research aims to answer the research question, "What are adolescents' feelings when they are in 'quarantine,' 'self-isolation,' 'lockdown,' or 'stay-at-home'?" Here are five categories that emerged while documenting this research question: Loneliness, Fear, Unproductive/Unmotivated, Surreal, Mentally Unwell.

Before we started analyzing the data resources, I had the expectation, based on my literature review, that certain themes might emerge. I was interested in seeing if these predictions would be confirmed by this exploration of how adolescents feel about the restrictive measures of the COVID-19 pandemic. Further to this, I wanted to know if they felt well during the process of adhering to "stay-at-home" measures. For example, most adolescents live with their family members during this pandemic. What are adolescents' feelings when they are not available to meet other people during this stressful period? Additionally, it is also important to discover if adolescents were experiencing feelings of social isolation or the sense of loneliness that might be caused by the prevention measures that were implemented to combat the COVID-19 pandemic.

The following is a discussion of the categories that emerged more frequently within the data resources:

- 1) Loneliness

McMaster (2020) supported that social isolation during the COVID-19 pandemic damaged adolescents' vital emotional support and interaction with peers. Many adolescents do not have sympathetic listeners at the best of times, which indicated the adolescents might experience loneliness (McMaster, 2020); and the restrictive measures caused by the pandemic might amplify these feelings of loneliness for adolescents. The survey from Common Sense Media (2020) also demonstrated that the COVID-19 pandemic made many adolescents feel lonely. Forty-two percent of adolescents felt more lonely than usual, and a further forty-three percent of adolescents felt just as lonely as usual.

"We are getting lonely." (SheKnows, 2020 May) *"I just feel so lonely all the time."* (SheKnows, 2020 April) Adolescents generally felt lonely during the COVID-19 pandemic. The biggest reason is that the "stay-at-home" order made it impossible to leave the place where they lived.

Some adolescents believed that life without social interaction would bring negative effects. This feeling is clearly expressed here:

Adolescent: *"People being alone and not having that social interaction really can bring back some bad thoughts and stuff."* (Give Us The Floor, 2020)

One adolescent dressed as a cat in an interview, and she thought that the cat's characteristic of being detached from interaction with humans was like her present state, which was not a good thing for her. She describes her rationale here:

Adolescent: *"I was like 'who hates people more than cats, no one. So that's what I'll become.' I don't think I'm doing well without people."* (SheKnows, 2020 April)

To control the pandemic's community spread, adolescents were not able to study at school because of the "stay-at-home" order, and adolescents also lost the opportunity to socialize with classmates and teachers at school, which is one of the reasons why they felt lonely. These effects are outlined here:

Adolescent: *"Just being around people is something that I took for granted, like it feels weird to just not see people for so long, I like a lot of my teachers too... even being around teachers and stuff."* (SMHSNow, 2020)

Additionally, adolescents could only socialize with the family members, which is another reason for being lonely, as is expressed by this individual:

Adolescent: *“Not having any social interaction other than with my family with nobody else around me. just kind of, it's lonely.”* (Give Us The Floor, 2020)

2) Fear

While many young people were experiencing loneliness, the evidence also showed that fear, for a variety of reasons, was another common emotion that people experienced during the COVID-19 pandemic (Kavoor, 2020; Huang & Zhao, 2020; Junior et al., 2020; Casagrande et al., 2020). The Centers for Disease Control and Prevention (2021) indicated that adolescents might have faced the loss of security and safety during the pandemic, which is stressful and fearful. In this research, Adolescents expressed the sense of fear from different aspects during the COVID-19 pandemic. Therefore, exploring the emergent category "fear" is crucial.

Firstly, adolescents might have been afraid that the pandemic would last for a long time and been afraid that their lives would not be restored to the previous norm. *“The fear of the unknown”* represented the majority of adolescents' mental states during this pandemic. This is clearly articulated in the following three quotes:

Adolescent: *“Something scares me right now is how would we are going to return back to normal life after quarantine.”* (SheKnows, 2020 May)

And,

Adolescent: *“What scares you most right now, prospect that one will be doing this for another 18 months.”* (SheKnows, 2020 April)

And,

Adolescent: *“I am scared because things won’t go back to normal.”* (SheKnows, 2020 April)

Some adolescents expressed concern about their family members' health, which indicated the fear of family members getting infected. In particular, adolescents were more worried about family members who were old or who had low immune systems, or who had already had severe diseases. These concerns are articulated here:

Adolescent: *“Population that could be effected could be anyone of my family member tomorrow or today. The things scared me right now is someone of my family get it.”*
(SheKnows, 2020 May)

And,

Adolescent: *“My grandparents got coronavirus, or somebody you love gets it. it’s really scary.”* (SheKnows, 2020 May)

And,

Adolescent: *“Both of my parents are quite a bit older than most people's parents my age and they are in the age range where they would be at risk, like higher at risk.”* (Give Us The Floor, 2020)

And,

Adolescent: *"I was worried about my stepdad getting it because my stepdad has cancer."* (Give Us The Floor, 2020)

And,

Adolescent: *"I mean I'm kind of worried about my grandparents just because they're old and they have health issues."* (Give Us The Floor, 2020)

Additionally, adolescents in the videos were afraid of being the intermediate carriers of the COVID-19, transmitting the disease to their families or other people. These fears were expressed in the following quotes:

Adolescent: *"My biggest fear is (you know) being a carrier for coronavirus and spreading it to my like family and love ones who are immunocompromised."* (SheKnows, 2020 April)

And,

Adolescent: *"I'm afraid of me getting it and being like a carrier and infecting someone else like my mom and my sister. I'm afraid especially for my great grandmother and great grandfather."* (Give Us The Floor, 2020)

Due to the "stay-at-home" order, adolescents might only can live with limited people. Being socially connected with other people, beyond their families, is really hard for them. Therefore, they are worried about losing the family members or other people when they are experiencing the social isolation during the COVID-19 pandemic. These concerns are expressed here:

Adolescent: *“What scares me the most is that people are social distancing from their own family when especially the old people dying.”* (SheKnows, 2020 April)

And,

Adolescent: *“The biggest challenge for me during this time, has been reaching out to people and staying connected. I always fear that that's going to be the last interaction I have with them.”* (MindWise Innovation, 2020)

And,

Adolescent: *“what I am scared about though is that I'm never going to see anyone ever again. There is something that I might lose some people.”* (SMHSNow, 2020)

And,

Adolescent: *“What's really worse than COVID-19 is not getting to see loved ones before they die.”* (SheKnows, 2020 April)

In addition to the feelings of fear that were expressed, some adolescents' family members were essential service workers who had to risk their lives during the pandemic, which is also a point that adolescents worried about. These concerns are outlined in the following quotes:

Adolescent: *“One of my parents is going through some stuff right now I'm just worried about losing them to this disease, because I don't know what I'm going to do without my parents.”* (Give Us The Floor, 2020)

And,

Adolescent: *“Some people in my family still work, because they are considered essential workers.”* (Give Us The Floor, 2020)

Besides the fear of losing friends and family members, some adolescents expressed that they were afraid of losing social skills because of the "stay-at-home" order.

Adolescent: *“My biggest worry for what's next is that I will lose my social skills. I'm currently a really social person, but I fear that I will lose that spark.”* (MindWise Innovation, 2020)

3) Unproductive/ Unmotivated

As this research mentioned above, the COVID-19 pandemic changed the traditional education method to online courses and homeschooling. Cull (2010) pointed that online courses challenged students' engagement and motivation of classes and assignments.

In this study, adolescents stated that staying at home caused by the restrictive measures made them lose motivation and be unproductive in different ways. So, it is important to analyze the category “unproductive/ unmotivated.”

The “Stay-at-home” order provided more free time to the people who were experiencing this global pandemic. Adolescents might not have been able to manage their free time appropriately at home, and it might have been challenging for them to concentrate on something. This inability to concentrate is clearly expressed in the following quotes:

Adolescent: *“I am getting way more work than I was, and my motivation is at zero to do any of it.”* (SheKnows, 2020 May)

And,

Adolescent: *“I am so unproductive. I have all this time on my hands that I am just not using for anything.”* (SheKnows, 2020 April)

And,

Adolescent: *“I’ve been very unmotivated because there is nothing really you can do so why can’t I just sleep all day?”* (Give Us The Floor, 2020)

As we mentioned before, homeschooling was one of the biggest challenges for Adolescents during the COVID-19 pandemic. Adolescents felt it challenging to keep their concentration in online courses and felt distracted when doing schoolwork as can be seen from the following:

Adolescent: *“I’ve been getting super behind on my schoolwork because I can’t really focus in Zoom.”* (SheKnows, 2020 May)

And,

Adolescent: *“It’s a lot harder to focus then there’s just so many distractions and there’s no real like push you to be good at what you’re doing.”* (SMHSNow, 2020)

It was found that adolescents were likely to lose their motivation to do homework because they thought online schooling was unrealistic. There was no restrictive schedule, and there was no one looking after them to finish the assignment. These sentiments are expressed in the following:

Adolescent: *“Then I feel like school isn’t real or doesn’t like count. I am like super behind on all my homework and I have so much homework to due and just I am super stressed out about it.”* (SheKnows, 2020 May)

And,

Adolescent: *“When we had school, I had a strict schedule that I stuck to every single day, and now I don't even have a schedule at all. Because of this, I started to lose motivation to do even the little things like homework.”* (MindWise Innovation, 2020)

And,

Adolescent: *“Trying to do my homework that's a big thing because it's really hard to do. I have no motivation.”* (SMHSNow, 2020)

4) Surreal

While students were experiencing fear, and a lack of motivation, studies such as Simon (2020) reported surreal feelings during the pandemic. This study also provided some psychological reasons why life during the pandemic felt unreal. They mentioned several reasons that cause surrealism: the pandemic was a situation that people had never been in before, most of the patterns people know and love had been obliterated, and everyday life routines were changed.

Indeed, most adolescents felt unreal about the outbreak of the COVID-19 pandemic because they had not experienced this kind of situation before. The restrictive measures that the government conducted changed the ways of living and studying, with which they used to be familiar. These expressions of unfamiliarity are noted here:

Adolescents: *“I honestly don't know what to say about what's been going on it's just like crazy to me, it just doesn't feel real.”* (Paulichi, 2020)

And,

Adolescents: *“This week has just felt like this week it isn’t real. This hasn’t felt like a week that actually exist I just feel like everything has been so chaotic and everything is kind of whirlwind.”* (Laurence, 2020)

One of the reasons adolescents felt unreal about the COVID-19 pandemic is they stayed at home and were isolated from the risk. The long-term impacts of being at home made them doubt whether the pandemic even existed. These feelings were evident in the following quote:

Adolescent: *“For me it's still very surreal, I don't feel that it's actually happening because I think obviously all I have to do is stay inside. I mean, I'm doing school from home, it doesn't really feel like we're in the like epicenter of what's happening.”*

(SMHSNow, 2020)

However, when adolescents did get involved in an environment that might contact other people, they realize that they were in a serious situation, because of other people’s behavior and social distancing. This is clearly described here:

Adolescent: *“It didn't get real for me until I went outside on the first bike ride that I went on, and I'm just biking down empty road and a woman was running to work on the same side of the road. She's running towards me and she ran to the other side of the road. I was like kind of offended but then I was like no she's just being responsible.”* (SMHSNow,

2020)

5) Mentally unwell

Fegert (2020) indicated that the pandemic's restrictive measures potentially influenced the children and adolescents' mental well-being. Gray (2020) also pointed out that anxiety and depression in adolescents were a significant problem before the pandemic outbreak, and this situation was getting worse because of the pandemic. Additionally, adolescents reflected a lot on their emotions and mental status concerning living with the pandemic. Therefore, it was crucial to study adolescents' mental status during the pandemic to see if we could corroborate previous research. To this end, it was significant that “mental well-being” emerged as a category in this research.

Adolescents felt mentally unwell and emotionally-down during the COVID-19 pandemic. It is important to note that, while we cannot identify or diagnose if they had mental health concerns, we could ascertain that they had experienced negative mental states depending on what they reported. Expressions of these negative mental states are articulated here:

Adolescent: *“I’ve been really low energy. I’ve been really depressed.”* (SheKnows, 2020 April)

And,

Adolescent: *“In my quarantine I was stressed more than normal, more than anything with school. It stresses me to know that sometimes I can’t finish everything...”* (SheKnows, 2020 April)

And,

Adolescent: *“This Coronavirus has a decently big impact on my mental health, I know my anxiety is on, like, it's peaking.”* (Give Us The Floor, 2020)

And,

Adolescent: *“It's sometimes hard when you're like at night and you're just like, you're alone with your thoughts you're just thinking about it and thinking about it.”* (Give Us The Floor, 2020)

The adolescents who have already had mental health concerns stated that they were facing a more difficult time because of the pandemic and restrictive measures. Their concerns are documented here:

Adolescent: *“This pandemic is definitely causing some of my depression to come back. It's difficult to manage.”* (Give Us The Floor, 2020)

And,

Adolescent: *“I have like episodes I like to call them, where it's like kind of like in and out of depression episodes or sometimes like mental breakdowns, and I just start crying.”* (Give Us The Floor, 2020)

And,

Adolescent: *“Lots of people that have mental health issues when they're stuck in isolation and that makes it worse and that worries me a lot, for other people and for myself.”* (Give Us The Floor, 2020)

And,

Adolescent: *“I think for anyone really with a mental health problem the thought of being stuck inside for a long time is kind of scary.”* (Give Us The Floor, 2020)

While some adolescents might have been experiencing negative impacts to their mental health, the health services that are intended to support them, might have been reduced during the COVID-19 pandemic, which challenged the mental health of adolescents who need this service. The following is a documentation of these concerns:

Adolescent: *“It's definitely impacted my mental health because I was at a program and my mom decided to not let me go there anymore because of the coronavirus and I was just starting to get comfortable with the people.”* (Give Us The Floor, 2020)

And,

Adolescent: *“We're trying to get a therapist but like with the situation is going on right now. I'm not sure if I will get one anytime soon.”* (Give Us The Floor, 2020)

With interruptions to service provision, and because of the "stay-at-home" order, maintaining social connections only with family members might not be a great thing for adolescents who have mental issues and need professional support. These feelings are expressed by this contributor:

Adolescent: *“I was just diagnosed with Crohn's Disease and my family wasn't very understanding.”* (Give Us The Floor, 2020)

In this research, the evidence shows that the COVID-19 pandemic negative influenced adolescents' feeling and emotion, including feeling lonely, fear, unproductive, and unreal. Loades et al.'s study (2020) demonstrated that more than one-third of adolescents had a high

level of loneliness during the COVID-19 pandemic. Commonly, Montag and Elhai (2020) indicated that children and adolescents felt more fearful than before the outbreak of the COVID-19 pandemic. In particular, people felt fear of losing loved ones during the pandemic (Kavoor, 2020), of contacting people from the exposed area (Zhang et al., 2020), and of death (Van et al., 2020). This was the information from the literature review of this research, which supported and supported the results of this study.

Additionally, some adolescents also indicated that the pandemic made them mentally unwell, and that this situation was not amenable for the adolescents who had mental issues. Those findings were supported by prior research: Fegert et al. (2020) advised that restrictive measures could destroy children and adolescents' mental health; and Bauerle et al. (2020) who declared that the restrictive measures of the COVID-19 pandemic were likely to influence the general population's mental health negatively. Further to this, Vaishnavi (2020) showed that the people who had mental illness were especially vulnerable at this time.

However, it is important to note that, during the collecting data process, we also found comments beneath the videos that challenged the opinion that adolescents had a negative mental status. These comments are noted here:

"Depression is deeper than that." (SheKnows, 2020 May)

And,

"Bruh, these people think that if you have a problem, you are depressed." (SheKnows, 2020 May)

And,

"In the 21st century, over 50% of kids have depression due to too much homework and having a little argument with their friends... why, because of videos like these advertising it as though it's a normal thing that everyone gets!!!" (SheKnows, 2020 May)

However, the following comment alerted to me that some adolescents may have downplayed their emotional needs, in order to avoid criticism, as noted in the above comments. The following contributor clearly articulates this process:

"That is exactly why I don't claim I am depressed or have any other mental illness. Yes, I might feel like I have it in one way or another, but I know there are so many people who have it worse and I shouldn't compare myself to them. Thus, I don't really talk about it because they might think I am an attention seeker of some sort and I shouldn't think I have the same thing as them." (SheKnows, 2020 May)

Based on the excerpts outlined above, some people thought adolescents exaggerated about their mental status. However, regardless of whether the adolescents who said they were depressed were diagnosed with depression or other mental issues, nonetheless, we cannot deny that they still experienced negative feelings and emotions during the pandemic. Also, it is not fair for those adolescents who have mental issues, to be afraid of expressing their feelings because of offensive comments.

To better support this study's finding that the COVID-19 pandemic negatively influenced adolescents' mental status, we summarized some educators' and psychologists' perspectives in order to demonstrate why the voice of adolescents matter and to demonstrate how it is reasonable that adolescents felt negatively during the pandemic.

Levine (Give Us The Floor, 2020) affirmed that over 50 percent of the students who responded to their survey considered they needed mental health support, since school closures began in California in mid-March. In some cases, some adolescents were stuck with abusers. They were stuck with people, parents, or caregivers who had substance abuse issues, and they could not leave.

Further to this, Conroy-Stocker (Give Us The Floor, 2020) indicated that lots of teenagers were in trouble in their families. Many teens being in isolation had exacerbated the problems that they already had. Adolescents who are in trouble, or with mental health issues, often rely on something to give them structure in their lives. For many of them, this is just a routine to their school day, even though they may not like school. He also said that adolescents might think they are the only person going through this pandemic, which is a lonely and sad thought.

In addition to these assertions, Stern (Give Us The Floor, 2020) stated that anxiety was at a higher rate in the adolescent group which they studied, and many adolescents which they studied were depressed. They were grieving because they missed out on graduation and they had many things to worry about. Adolescents need to be seen and understood, which is a basic human need. They are looking for identity and finding themselves unable to interact with peers, was contributing to their negative experiences during the pandemic. "One thing we noticed and care very deeply about is not minimizing any loss that anybody has." That is how Stern advised that adolescents' feelings matter.

One other important point that is important to consider was raised by Aderson (2020) who indicated that adolescence is a stage in which the human brain is thinking about novelty, seeking pleasure, and finding new frontiers. However, novel experiences were limited in some way during this pandemic. Therefore, adolescents felt problematic and weird.

Above all, it is reasonable and understandable that adolescents expressed negative emotions and feelings when they experienced social isolation and a sense of loss and insecurity during the pandemic. People should not prevent adolescents from talking about their feelings online because speaking out about their disappointments and complaints might have been a healing strategy that helped them feel better.

Part 3

One of the purposes of this study was to investigate whether YouTube provides a valuable resource to help inform public administrators when they make protocols for young people dealing with public health emergencies. Therefore, it was essential to understand how young people thought about the pandemic and what coping strategies they had.

In this part, no category or term emerged. The researcher simply summarized and structured the information about adolescents' recognition of coping strategies that they were using to manage the COVID-19 pandemic. This information was used to answer the research question three: "What kind of coping strategies did adolescents have for dealing with the negative influence of the COVID-19 pandemic?"

- 1) Cognition of the COVID-19 pandemic

The recognition of COVID-19 by adolescents was the critical topic on which we wanted to focus, before the beginning of analysis in this research. We wanted to have an understanding of how much and what kind of information about the COVID-19 disease the adolescents had. For example, we wanted to explore what they knew about the characteristics of the COVID-19 virus transmission and how to prevent it.

In this study, adolescents did not consider the COVID-19 pandemic to be a dangerous situation, at the beginning of the COVID-19 outbreak. But their understanding evolved to the point that they realized this pandemic was severe, and that the pandemic was really happening. This evolution of thought is captured in the following quotes:

Adolescent: *“We didn't take it as seriously at first, or a lot of us didn't take it seriously at first, and now it's kind of like, hit us in the face, like this is a real thing and this isn't a joke.”* (SMHSNow, 2020)

And,

Adolescent: *“I remember joking about it, like I was playing the coronavirus song every single time I walked into a classroom, it was funny, a lot of my classmates said it was funny. I wasn't really thinking too much of it, now as the days keep going, I'm just realizing like, no it's not nothing.”* (SMHSNow, 2020)

As their understanding of the Coronavirus evolved, adolescents indicated that people should follow what the government was saying about restrictive measures, which was considered the right way to keep safe and protect others. The following three quotes demonstrate their willingness to follow set guidelines:

Adolescent: *“The Corona virus right now is so serious. But you know, you have to understand that we’re doing that to protect everyone around us, to protect ourselves. we need to take these precautionary steps in order to make sure that we’re all safe and we’re taking care of everyone.”* (Laurence, 2020)

And,

Adolescent: *“Please, please, please stay home don't go outside, don't meet up with your friends. You can do that later. I see a lot of people outside and they shouldn't be just stay at home. Follow what the government says, and I hope everything will be all right.”* (SMHSNow, 2020)

And,

Adolescent: *“If you are going out and hanging out with your friends you are on the wrong side of history.”* (SMHSNow, 2020)

Although adolescents generally felt negative when they were in "quarantine," "self-isolation," or "stay-at-home" order during the COVID-19 pandemic, their attitudes towards the COVID-19 virus and restrictive measures issued by the government were positive and supportive. They thought they could go through this period of isolation, and the pandemic would be over. Students, who should have had their final year in school, could understand the government and school's decision because they recognized that the most important priority during this time was people's lives, rather than engaging in senior year activities. This is clearly described here:

Adolescent: *“We are living through history right now, but it's gonna get better at the other day; it's gonna solve itself slowly. It's painful right now, but history has shown we have dealt with things like this before, and we have managed to survive, and we have managed to keep on pushing through... history is going to repeat itself. It's super bad right now, but it's going to get better and everything's gonna fix itself.”* (SMHSNow, 2020)

And,

Adolescent: *“I don't know I mean a virus this virus is really hard to control, and some people just don't understand that it's much bigger than themselves.”* (SMHSNow, 2020)

And,

Adolescent: *“I'm a senior, and it's like second semester. We're supposed to be like hanging out and doing a lot of fun things we can't really do that now since we have to meet virtually and stuff. But I think it's for the best too because like school and prom and all these types of things are really like not that important in the bigger sense of like people's lives.”* (SMHSNow, 2020)

In the end, adolescents acknowledged the severity of the COVID-19 pandemic, expressed their support for following the prevention orders that the government had made, and declared their understanding of the challenges and changes they had encountered because of the pandemic.

2) Coping strategies

Adolescents also shared their suggestions about coping with negative emotions, low motivation, and restrictive daily routines.

Adolescents recognized that they had more free time during the pandemic, and it was an appropriate time to explore their interests and something they wanted to do but had not had time to do before. This emerged as an excellent strategy for them to spend time at home and made them feel better. The following five quotes demonstrate how some adolescents used the time to explore their interests:

Adolescents: *“I’ve been tanning a lot, been watching a lot of TikTok, actually made a couple of TED talks and also I’ve been planning future videos a lot of them. I’m really excited about that.”* (Paulichi, 2020)

And,

Adolescent: *“I am trying to become a rapper and I’ve been trying to make new beats on GarageBand and stuff so that’s something that I’ve wanted to do I guess.”* (SMHSNow, 2020)

And,

Adolescent: *“I am working on a documentary right now..... I am interested in film and stuff that I’m gonna put my heart and soul to it.”* (SMHSNow, 2020)

And,

Adolescent: *“I’ve been exploring a lot more music recently, being able to focus on listening to new songs rather than having to have it as my background noise. Music gives me an escape from what’s around me.”* (MindWise Innovation, 2020)

And,

Adolescent: *“I’ve been playing with launch pad a lot, a techno, DJ, keyboard, kind of music. I’ve been posting on YouTube too.”* (SMHSNow, 2020)

In addition to exploring interests, maintaining relationships with family members at home, the opportunity to connect with friends in different ways made adolescents feel great as well, and also emerged as a strategy for coping with negative feelings during the COVID-19 pandemic. Attempts at maintain social interactions are well documented here:

Adolescent: *“Just make the best of the situation connect with friends in different ways. We have so much technology nowadays not that hard.”* (SMHSNow, 2020)

And,

Adolescent: *“I have better days when I start the interactions with other people in my family. I like to have that head start. It makes me feel better.”* (MindWise Innovation, 2020)

Another coping strategy that was discussed by some adolescents was the idea of recording their lives, such as calculating how many things they could do in one day or making a journal to write things down. A sample of these strategies is noted here:

Adolescent: *“I have been taking care of myself by journaling. This is not only really fun and relaxing, but it also helps me keep track of all the things that I need to get done.”*
(MindWise Innovation, 2020)

And,

Adolescent: *“I used to measure myself by how much I did in a day. I want to do something that makes me feel better.”* (MindWise Innovation, 2020)

While there were examples of things that people incorporated into their lives, there were also things that adolescents chose to exclude from their lives as is documented by the following:

"I am afraid to look at the news channel." (Give Us The Floor, 2020) One adolescent is talking about one of the scary things during the pandemic. Another adolescent indicated that watching news frequently during the pandemic is not an excellent thing for their mental well-being.

Adolescent: *"Don't watch the news too much because that's really bad for your mental health."* (SMHSNow, 2020)

While many adolescents were experiencing multiple negative effects of the COVID-19 pandemic, many of them also suggested that looking on the bright side was crucial and keeping their faith that things could get back to normal. The following quotes describe this:

Adolescent: *"You honestly just have to look at the bright side because I feel like there's a lot of stuff going on that's really bad. So, look at the bright side. This is your moment to shine."* (Paulichi, 2020)

And,

Adolescent: *"Although this virus has put restrictions on you, it doesn't stop the fact that you are still a teenager, and you have so many hours to be a teenager, so live it up."*

(Bru, 2020)

And,

Adolescent: *“Just ride it out and eventually we’ll all be back at school whether or not this year or next year who knows but eventually we’ll be back at school.”* (SMHSNow, 2020)

In addition to all the coping strategies that were documented above, many adolescents mentioned that it was important not to hesitate to share negative feelings during the COVID-19 pandemic. They stated that everyone's feelings and opinions mattered and should be listened to. Additionally, they expressed that it was normal to have negative emotions, which was understandable. Therefore, the exchange and sharing of negative feelings during this pandemic were conducive to adolescents' mental stability. These sentiments are clearly expressed in the following 4 quotes:

Adolescents: *“Don't be afraid to speak out your concerns and talk about the coronavirus crisis that we're in right now.”* (SMHSNow, 2020)

And,

Adolescent: *“Just keep in mind that everyone else is as worried and confused as you are. What I mean is that you're not alone.”* (PBS NewsHour, 2020)

And,

Adolescent: *“Say something that has been on your mind so long.”* (Bru, 2020)

And,

Adolescent: *“Your feelings are valid whether it's because you might be losing a family member, or your graduation is canceled. Your feelings are valid, and we will get through this.”* (SMHSNow, 2020)

In this section, I have summarized and structured adolescents' recognition of the COVID-19 pandemic, and the coping strategies that they used for dealing with the negative influence during the pandemic.

The importance of summarizing the adolescents' recognition of the COVID-19 pandemic contributed to the purpose of this study, regarding whether social media platforms like YouTube could help inform public administrators when they make protocols for younger people dealing with public health emergencies. To this end, it is difficult to create protocols if there is no understanding of what information (the cognition of the COVID-19 virus and the restrictive measures of the COVID-19 pandemic) adolescents had regarding the COVID-19 pandemic.

In this research, adolescents recognized the existence of the COVID-19 pandemic and suggested that people should follow the restrictive measures that the government made. Even though they expressed their negative feelings about isolation at home, most of them presented a positive outlook for the future. They believed life would go back to normal one day.

Adolescents provided some tips for dealing with the negative feelings caused by the restrictive measures or the COVID-19 pandemic. They used their free time to investigate new interests and solve the problems related to the lack of motivation. Adolescents presented positive ways to cope with negative feelings and expressed their supports to their peers that adolescents need to speak out and be heard.

Summary

Drawing on the findings from the analysis process, as they have been described and presented in the previous section, my three research questions can be answered appropriately.

1) How is COVID-19 influencing the life of adolescents?

The COVID-19 pandemic changed the traditional schooling method, which could be demonstrated by previous studies (Plitnichenko,2020; Cull, 2010).

Homeschooling and learning online were the education methods that were used during the pandemic. Adolescents were looking forward to returning to the old way of learning at school. They highlighted the disadvantages of online courses, including teachers' reduced class time and the impartation of knowledge through more homework instead of direct teaching. Students found it difficult to focus during online courses because of distractions at home; and they were losing their motivation during the online schooling process. Adolescents noticed that motivated students also experienced difficulties in attending online courses. Students who wanted to improve their grades found it especially difficult doing courses online because they thought homeschooling was not helpful. In addition to this, adolescents criticized the process of online teaching and homeschooling, and they had difficulty recalling schoolwork that they were doing during the pandemic.

The COVID-19 pandemic contributed to adolescents being able to increase their screen time, which was indicated in several studies (Montag and Elhai, 2020; Dong et al., 2020).

Adolescents realized that they spent much more time on technology and devices during the COVID-19 pandemic than before, and they thought that having too much screen time

might not be a positive thing for them. Adolescents pointed out that using social platforms and online media was one of the main reasons that they were spending much more time on their screens, and they recognized that using social platforms and online media influenced whether, and how quickly, they finished their homework. Further to this, adolescents believed that social media negatively affected the speed of completing assignments, but also other things they wanted to do in a day and recognized that social media platforms are addictive in some ways.

The COVID-19 pandemic affected adolescents' friendships because of the change in social interaction, which was also pointed out in Julie's (2020) research. The pandemic changed the ways of making and keeping friends and narrowed friendship circles.

Adolescents expressed that they were missing friends during the pandemic, because they preferred to make friends face to face instead of online. They missed the traditional ways of making friends and keeping friendships before the outbreak of this pandemic. Adolescents indicated that, even though technology and devices enabled people to communicate online, these online interactions still felt different from in-person communication. Adolescents reported that the stay-at-home orders made them unable to contact friends they were not familiar with and made it challenging to keep and maintain the friendship they used to have. This situation made adolescents rethink the meaning of friendship and friends and allowed them to realize how important their friends were to them.

The COVID-19 pandemic increased the time that adolescents spent with their family members because of the stay-at-home order, a finding that was corroborated by Miller 's

study (2021) and Common Sense Media's survey (2020). In this regard, adolescents reflected positively on the fact that they were able to enjoy family time, playing games and enjoying meals with families. But some adolescents complained that it is was not great spending time with family members because family members were the only people they could meet during the pandemic. Some family tensions also existed because, some adolescents had to share the room with siblings or help take care of other siblings.

The COVID-19 pandemic affected adolescents who were unable to engage in some significant life events, a point that was also highlighted in the report from the Centers for Disease Control and Prevention (2021). Senior adolescents expressed displeasure because the pandemic deprived them of celebrating their graduation ceremony and indicated how they felt sad about the ceremony's cancellation, because they couldn't meet their friends and celebrate graduation with them. This effectively demonstrated the importance for adolescents of maintaining friendships. Additionally, senior students were apprehensive that they might not be able to enter college/university on time because the college/university may change the enrollment time and method due to the severity of the pandemic. Further to this, adolescents also indicated that the pandemic made celebrations unusual because people had to follow social distancing. Further to this, some adolescents complained that they lost the chance to travel with family because of the pandemic restrictive measures.

2) What did adolescents feel when they are in "quarantine," "self-isolation," or on "stay-at-home orders"?

Adolescents generally felt lonely during the COVID-19 pandemic because the "stay-at-home" order made it impossible for adolescents to leave the place where they lived. This finding was supported by (McMaster, 2020; Common Sense Media, 2020). Adolescents believed that life without in person social interaction would have negative effects which might include loneliness. One of the reasons adolescents might have felt lonely is that they had lost the opportunity to socialize with classmates and teachers at school because of the "stay-at-home" order. A consequence of this was that many adolescents could only socialize with their family members, which is another reason for being lonely and sad.

Adolescents expressed a sense of fear of different aspects of the COVID-19 pandemic; this finding has been described in many previous studies (Kavoor, 2020; Huang & Zhao, 2020; Junior et al., 2020; Casagrande et al., 2020). Adolescents expressed the fear that the pandemic would last for a long time and that their lives would not return to pre-pandemic normal. "The fear of the unknown" was expressed by most of the adolescents' during the pandemic. In addition to this, adolescents also indicated the fear of family members getting infected. This was priority for adolescents who were worried about family members who were old or who had compromised immune systems. Many adolescents showed a sense of responsibility as they were also afraid of being carriers of the COVID-19 virus and transmitting the disease to their families or other people. Adolescents were also worried about losing family members or other people when experiencing social isolation during the COVID-19 pandemic. This was particularly true if they live with limited number of people and were not able to be socially connected with other people. Some adolescents indicated that

their family members had to work during the pandemic, which contributed to their concerns about their health. In addition to all these fears, many adolescents were afraid of losing social skills because of the restrictive measures, and because the ways of interacting socially had changed.

Adolescents stated that staying at home caused by the restrictive measures made them lose motivation and be unproductive in different ways during the pandemic. This finding was similar to the results of Cull's research (2010) who found that adolescents might not have been able to manage their free time appropriately at home, and it might have felt challenging to concentrate on something. Homeschooling emerged as one of the biggest challenges for adolescents, and they felt it challenged them in keeping their concentration on online courses and felt distracted when doing schoolwork. In addition to these concerns, adolescents were likely to lose their motivation to do homework because they thought online schooling was unrealistic, there was no restrictive schedule, and there was no one holding them accountable to finish their assignments.

Many adolescents felt surreal about the outbreak of the COVID-19 pandemic because they had not experienced this type of situation before, and the restrictive measures that the government introduced changed the ways of living and studying that used to be familiar to them. Simon (2020) provided psychological reasons that rationalized adolescents' feelings that the pandemic was unreal. Adolescents felt that the COVID-19 pandemic was unreal because they stayed at home and were isolated from the risks. Further to this, extended

periods of being at home made them feel doubtful about whether the pandemic even existed. Nonetheless, when adolescents entered into an environment where they were in contact with other people, they realized that they were in a situation that should be treated seriously, because of other people's behavior and the implementation of social distancing requirements.

Adolescents felt mentally unwell or emotionally-down during the COVID-19 pandemic, findings which have previous academic support (Fegert, 2020; Gray, 2020). The adolescents who have already had mental health concerns stated that they were facing a more difficult time because of the pandemic and restrictive measures. Mental health service might need to be modified during the COVID-19 pandemic because it is a challenged time to access mental health services to every adolescent who need this service. In addition, the "stay-at-home" orders and the requirement to maintain social connections solely with family members might have been undesirable for those adolescents who have mental health concerns and these young people might require professional support.

3) What kind of coping strategies did adolescents have for dealing with the negative influence of the COVID-19 pandemic?

At the beginning of the COVID-19 pandemic outbreak, many adolescents did not treat the COVID-19 pandemic as a dangerous situation. However, they later realized this pandemic was serious and that the pandemic was happening. Adolescents understood that people should follow what the government said about restrictive measures, which they saw as the correct way to keep safe and protect others. Although adolescents regularly had negative feelings when they were in "quarantine," "self-isolation," or "stay-at-home" order during the

COVID-19 pandemic, adolescents did express positive and supportive attitudes towards the restrictive measures that were issued by the government. Many adolescents felt that they could endure this time, and the pandemic would one day be over. Students who should have had the final year in school could understand the government and their schools' decisions because public safety was the most crucial part of people's lives rather than engaging in senior year activities.

Many adolescents suggested that using free time to explore interests was an excellent strategy for them to spend time at home and improve their sense of well-being. Adolescents also described the importance of interacting with family members at home and how connecting with friends in different ways (phone call or different social media platforms) could help promote well-being and could be seen as an effective strategy for coping with negative feelings during the COVID-19 pandemic. In addition to this, some adolescents felt that recording their lives might also be a great coping strategy. This included calculating how many activities they did each day or making a journal to write things down. Adolescents further indicated that watching news frequently during the pandemic was not beneficial for their mental well-being, which meant that many adolescents tried to watch less news on TV about the epidemic, in order to avoid exposure to this source of anxious and fearful information.

In addition, Adolescents suggested that looking on the bright side and maintaining a positive outlook was crucial to keeping the faith that things could go back to normal. Finally, adolescents mentioned that it was important to not hesitate to share negative feelings during

the COVID-19 pandemic and asserted that everyone's feelings and opinions mattered, and adolescents should be able to speak out their thoughts. They felt it was essential to exchange and share negative feelings with peers and parents during this pandemic, which positively contributes to adolescents' mental well-being.

In this research, I discussed different issues that adolescents encountered that might be caused by the COVID-19 pandemic. This research contributes to the interdisciplinary approach of public health study. Bellmann (2012) indicated that public health is a study that includes a great number of ideas, initiatives, and interventions, representing an interdisciplinary approach. Kivits, Ricci, and Minary (2019) pointed out that improving the research and intervention of public health must combine different disciplinary approaches from different areas. Medicine, psychology, epidemiology, economics, social and political sciences, health services research, humanities, geography, and legal science are all involved in public health research, contributing to the observation, analysis, understanding, and interpretation of health facts. For example, adolescents discussed the difficulties of conducting online schooling in this research. One of the difficulties is that the change of teaching method made adolescents distracted and lose motivation. Besides, they mentioned that the amount of assignments is increased and the time of using screen is rising during the pandemic. Those difficulties contribute comprehensively to adolescents having a sense of anxiety and depression when staying at home during the pandemic. In this case, adolescents' health is related to the restrictive measures of the outbreak of a pandemic, mental status, and

teaching method, which demonstrated that the factors that influenced adolescents' health were compounded across intersections of physical, mental, and social well-being.

Therefore, it is acknowledged that adolescents' wellbeing in this research is determined by the interdisciplinary approaches, including the COVID-19 pandemic (epidemiology), mental health concerns (psychology), teaching method (education), and others.

Discussion

Concern and Suggestion

The conclusions drawn from the analysis and findings of this study adequately demonstrated that YouTube can help us to better understand the effects of the COVID-19 pandemic on adolescents.

In addition to effectively answering the research questions, I address concerns, and make suggestions, raised by the findings of this study, for helping adolescents maintain healthy lives during the pandemic. These suggestions, as they are outlined below, might also provide a new process, for public administrators, for understanding and addressing the needs of young people dealing with public health emergencies.

1, For adolescents, friends are really important, and it is an essential part of their development to be able to connect with peers. When they are stuck at home with parents and siblings, it is understandable that they are frustrated because they were cut off from their peers. Therefore, hearing and acknowledging their feelings and making it easier for them to communicate with peers would be reasonable and helpful. To this end, the government could fund some non-profit organizations which would benefit children and adolescents' health during the pandemic. An example that highlights this process is a non-profit organization called Give Us The Floor (2020) which provides a place that helps adolescents connect with peers and communicate their concerns and mental health/social issues.

2, For adolescents, homeschooling is difficult. Parents or caregivers could support them in learning and studying online. It is understandable that adolescents feel pressured and

confused when they engage in remote learning, because they have never experienced this type of situation before. Helping them structure and plan a full school day might be a good strategy. Parents and caregivers could help adolescents create a schedule that has specified times for: learning online, working on assignments, break times, socializing with friends, exercising, and entertainment. It would also be a good idea to set up opportunities for positive reinforcement, which means giving adolescents some rewards when they do well in homeschooling or other personal accomplishments.

3, The COVID-19 pandemic made adolescents lose the opportunity to experience some significant life events. Many adolescents expressed mental distress about missing valued activities and milestones during the pandemic. Therefore, it is important that adolescents be able to share their feelings about this loss without any judgment. Additionally, parents, caregivers or even the school could help adolescents to make alternative and safe choices to celebrate the events they missed during the pandemic.

4, Many adolescents struggled with increased screen time. Even though many adolescents use technology to bond with their peers, it is difficult for some adolescents to manage their screen time. Therefore, parents or caregivers could help their children to limit screen time. Using technology and devices could be restricted to a specific time, including the beginning, middle, and end of doing an assignment or a project, which can help young people build a sense of accomplishment. As I mentioned above in the analysis and results, increased screen time is partially due to homeschooling. Adolescents have to use technologies to learn and complete assignments. Therefore, school boards and administrators

could monitor educational institutions that are conducting online schooling and monitor the appropriate amount of assignments to regulate the time students spend completing work online.

5, For those adolescents who are experiencing fear related to exposure to COVID-19 information, uncertainty of the future, or the possibility of losing family members to the pandemic: In order to alleviate these fears, parents or caregivers could provide opportunities to discuss COVID-19 related topics with their adolescents to help them remove misunderstandings, while also trying to ask open-ended questions about what they are concerned about, as a means to help them express their fears. An example of this is a national hotline called Kids Help Phone (Naccarato, 2020 March) for helping adolescents, children, or young people go through personal difficulties in Canada. The government could improve this service by expanding communication mediums to both phone line and online. As we know, seventy-four percent of adolescents are using online platforms (Chaffey, 2020). Therefore, online services might be more appropriate for younger people.

6, The pandemic is an excellent time to build more family time with adolescents. Based on the results of this research, adolescents are enjoying being able to be with their parents. Therefore, planning more creative activities at home with adolescents is also a great strategy to ensure that they feel supported while having fun. Some examples of activities might include: playing indoor games, exercising, cooking, listening to music, or making an afternoon treat together.

7, It was noted in this study that adolescents might have negative feelings and emotions during the COVID-19 pandemic. Parents and caregivers should monitor adolescents' mental health during the pandemic, and it should be acknowledged that adolescents are likely to experience difficulties during this challenging time.

According to Rahman (2020), parents can monitor the mental or physical well-being of their adolescent children by checking regularly on the following aspects.

- 1) Sleeping changes (more or less)
- 2) Eating changes (more or less)
- 3) Signs of self-harm, substance abuse, or acting out more than usual
- 4) Complaints of body aches that are not due to a physical problem
- 5) Isolating more than usual (for example, eating dinner alone in their room)
- 6) Not participating in activities that usually bring them joy

If any significant changes are noted in the aspects above, it is appropriate for parents to connect with mental health services for their children.

Limitations of the Study

This study involved video content analysis, which means the researcher collected data from video resources. In the study, the researcher focused on the discourse/ transcripts in the videos, not including the examination of facial expressions, gestures, or other behaviors. Therefore, although this study is a video study, it did not evaluate other factors besides transcripts. However, it did not employ methods to standardize and digitize facial expressions and gestures, so these factors were not taken into account.

In addition, although the selected nine videos came from YouTube, which is a public video website, the contents of the videos were probably edited by the organizations or authors that uploaded the videos. Therefore, we cannot know if these videos exaggerated the author's original intentions and messages, and this could have consequently affected this research. For example, the original authors may have edited together all of the scenes with negative emotions, in order to achieve a result that showed how the COVID-19 epidemic damages adolescents' health. In reality, this fact may not be so severe and persistent.

In addition to these limitations, we also limited our data collection to a sample of videos that were created in North America. However, as far as we know, within the scope of North America, every American state or every Canadian province has independent government and public health management agencies; thus, the epidemic situation and epidemic prevention standards are different in each place. Therefore, we cannot know whether the teenagers in this study were found in similar or different environments. It is possible that, teenagers in different environments and conditions might have displayed different reflections.

For the consistency and accuracy of the research, we collected videos that had been uploaded within the first half-year of the COVID-19 pandemic outbreak. Therefore, our data can only represent the situation during the beginning of the COVID-19 pandemic. Because the COVID-19 pandemic was dynamic in nature and constantly evolved over time, there could have been a relaxation of epidemic prevention measures; with the result that, adolescents' feelings, mental states, and related coping strategies could have changed or improved accordingly. Further to this, adolescents might have reached a balance, through the long-term adaptation of the COVID-19 pandemic. However, we cannot deny that the situation of adolescents' feelings and mental well-being could have deteriorated after having experienced long-term pandemic life.

Furthermore, although adolescents expressed their negative emotions and displayed apparent mental unwellness, the researcher could not identify whether the adolescents actually had clinical mental health concerns or whether they were genuinely mentally unwell. The findings of "negative emotions" and "mental unwellness" were subjective. Compared to the symptoms listed in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5) of the American Psychiatric Association* (2013), it is impossible to diagnose mental health problems only relying on the data from what adolescents said in front of the camera.

Finally, as a researcher whose first language is not English, there may have been some deviation in my understanding of language, relative to that of another researcher whose mother tongue was English. Thus, one of the limitations of this research was that my

understanding of cultural expressions or language may not have been as accurate that of someone whose first language is English.

Expectation

In case this study is replicated, extended or developed in the future, a few aspects could be changed or strengthened.

Firstly, researchers could increase the number of videos that they sample and also expand the content of videos (without changing the research methods). This could increase the reliability of research results by expanding the amount of data.

Secondly, researchers could carry out cross-cultural research, since this study only collected English-language videos. Using bilingual researchers and collecting videos based on the researchers' first language as a data source may be one way to expand the background and breadth of that study. Data results in two different languages could be compared in any future studies, which could provide more discussion and communication related to this topic.

Thirdly, researchers could modify the research method. Scholars may attempt to investigate the related topic by using a quantitative or mixed method. In the present study, teenagers' mental health status was not scientifically diagnosed. However, if a psychological measurement tool (for example, DSM-5) were utilized in future research, the clinical mental health status of teenagers could be scientifically determined.

Conclusion

This research demonstrated that the COVID-19 pandemic influenced adolescents' lives in different ways, including complicating or preventing schooling, friendships, significant life events, and expanding the time spent using technology. The COVID-19 pandemic negatively affected adolescents' emotions and feelings, including instilling a sense of fear, loneliness, loss of motivation, and surrealism, which were represented in several aspects. Adolescents were experiencing mental unwellness or feeling emotionally-down during the first half-year of the COVID-19 pandemic outbreak.

However, adolescents showed their abilities to cope with the negative feelings during the pandemic. Most adolescents found creative ways to cope with the limited living conditions caused by the pandemic. They recognized and acknowledged the information of the COVID-19 pandemic and suggested that people follow the restrictive measures the government published.

The purpose of this research was to confirm that adolescents' lives were indeed influenced by the COVID-19 pandemic and their mental status affected. The public needs to be aware of this situation, knowing that adolescents need to be noticed and cared for during an epidemic. Adolescents' voices need to be heard without prejudice and evaluation, rather than being verbally abused online for expressing their opinions. The results of this research provide a practical way to help inform public administrators for making protocols for adolescents, when dealing with a public health emergency.

This research comprehensively explored adolescents' concerns and needs during the COVID-19 pandemic and found that adolescents provided significant emotional feedback through the YouTube platform during the pandemic. This study also investigated adolescents' recognition of the COVID-19 pandemic and their opinions of the restrictive measures of the COVID-19 pandemic. It is my determination that this study has provided a template that could help relevant institutions access information that would better inform the development of corresponding measures to help teenagers better survive this difficult epidemic period, so that future public safety protocols might have greater epidemiological, educational and psychological significance.

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