

## The Impact of COVID-19 Lockdown on Adolescents and Young Adults' Lifestyle

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### Abstract

**Purpose** This paper focuses on studying the impact of lockdown on adolescents and young adults (age group 15-20 years). With inevitable lockdown, closure of schools, and the subsequent shift of education to online mode, there has been a significant change in the lifestyle of these individuals and is likely to pose a more substantial threat to their overall development, including their personality development. Therefore, this study explores the lifestyle changes that have occurred while staying at home among children and young adults and how this will impact their psychology, mental health, and personality development in the long run.

**Design/methodology/approach** A systematic literature review was done to extract the study's information. Since the study focused only on adolescents, relevant literature highlighting the problem of adolescents was considered. The descriptive approach was followed to understand the transformations the young adults experienced in their lifestyle during the lockdown and their reactions to situations.

**Findings** COVID-19 has affected every section of society, from those living in slums to those living in luxurious houses with better protection settings. However, all were not infected by it but were affected economically, mentally, psychologically, and socially. The results were consistent with the fact that there has been a shift from their normal lifestyle and daily routine, which will impact their future development. It was observed that the lockdown and the subsequent changes have significantly affected the mental health of the children and young adults, which will have a role in shaping their cognitive and psychosocial aspects in the future. Therefore, there is a need to recognize the urgency of the situation regarding children's mental health issues and plan for immediate interventions.

**Keywords:** Adolescents, young adults, mental health, COVID-19, lockdown

## **1. Introduction**

COVID-19 started in a city called Wuhan in China, where the very first few cases were confirmed on 31<sup>st</sup> December 2019, and within a few months, it became a global crisis spreading to the entire world. Countries across the globe adopted various measures to minimize the spread of the virus, including the imposition of lockdown, compulsory usage of masks, regular hand washing, and extensive use of sanitizers (Basu et al., 2020; Demario et al., 2022; Dharmaraj et al., 2021; Madan et al., 2021; Tripathi, et al., 2020; Balabantaray, 2022). The measures initiated to address the consequences of the pandemic have impacted all the possible dimensions related to mankind beyond health, directly or indirectly, and positively or negatively.

Adolescence is the age of multiple changes in an individual's internal and external environment. Changes can be physical such as attaining puberty, and changes in appearance or social such as making new relationships and learning social behavior (Noller and Callan, 2015). A unique situation such as the lockdown during the pandemic might impact their lifestyle (Afrin et al., 2022). Results suggested changes in mean sleep duration (6.85 hours to 8.17 hours), average screen time (3.6 hours to 5.12 hours), increased stress level by 51.9%, experiencing increased food intake by 76.4%, and decreasing physical activity by 38.6% among young adults and adolescent. These all happened to affect their lifestyle (Roy et al., 2020)

The lockdown period severely affected young people's mental health along with some physical changes (Al Mamum et al., 2021). For instance, a study reported that stress induced by the lockdown has severely affected young females by disturbing their menstrual cycle (Malik et al., 2021). Additionally, body weight and BMI (Body Mass Index) are to be changed. For example, a weighted mean of between-group difference was 1.57 (95% CI: 1.01 to 2.14) in the post-lockdown period compared to before the lockdown period suggesting an increase in body weight (Bakaloudi et al., 2021)

Fernandes et al. (2020) opined that during this lockdown, there had been a significant increase in internet usage and gaming addiction among adolescents, affecting their psychological well-being (Jahan et al., 2021). Later, they might have post-traumatic stress disorder (Imran et al. 2020). Moreover, a global study of suicide has also noted an alarming rate of suicide among adolescents. They reported about 37 cases of suicide, whereas academic stress, family conflicts, relationship complexities, and Tiktok addiction were the suicide attributor (Manzar et al., 2020). The current pandemic brought about sudden changes in the behavioral aspects of human beings. Moreover, there have been extensive emotional changes due to COVID-19. The present study tries to analyze the consequences and how they will have long-lasting impacts on children and adolescents. However, to better understand the impact of lockdown among adolescents globally and in India particularly, this review aimed to present the study results systematically. Hence, the study is conducted with the following objectives:

- To examine the lifestyle changes in adolescents and young adults during the lockdown.
- To assess the role of these changes and the long-term impact of these on the personality development of adolescents and young adults.

The rest of the article is structured in the following manner: The second section presents the literature review. Methodology of the study is presented in section three. The findings and discussion of the study is covered in section four. Finally, the conclusion., policy suggestions, and the limitations and future scope of the study are included in the fifth section.

## 2. Literature Review

This section presents the analysis of available literature on adolescent changing behaviors and the impact of lockdown on the health of human beings.

### 2.1. Adolescent Characteristics and Behaviour-A Theoretical Background

Haim Ginnot (2009) has pointed out that adolescence can be a time of turmoil, turbulence, stress, and storm. Rebellion against authority and convention is expected and tolerated for learning and growth." As highlighted by the psychologist Haim Ginott, adolescence is the age full of roller coaster rides, storms, turbulence, and many other drastic things to experience. It is the phase when the individual's mind questions everything and has a quest to explore the world. It is when the mind gathers the courage to rebel against what it perceives as wrong and how the thoughts, beliefs, and perceptions are formed, shaping the personality the individual will carry in the future. It is the age of crucial changes in an individual's physical, emotional, psychological, and mental state and is the transition phase; from a child, the person becomes an adult.

During this time, the individual attains puberty, which includes reproductive competence and behavioral changes; however, adolescence is a broader term, including social, psychological, and emotional changes. It is the time in an individual's life when they are most vulnerable to psychiatric disorders like depression, anxiety, and schizophrenia. It is the phase when the psychological problems and difficulties in life drag an individual to engage in activities like alcohol use and drug use, which have a long-lasting impact on their life (Walker et. al, 2017). Youth and adolescents are in that phase of their life where they need more social connectedness and more social interactions. They have a different cognitive approach to making decisions about their personal and social life compared to adults. If this social connectedness and social identity are not adequately managed, it will lead to loneliness among adolescents and young adults.

Some shreds of evidence show that most of the mental health problems diagnosed during adulthood originate during the adolescent age of the individual. It is observed that almost 50 percent of these issues relating to mental health emerge by the start of the 14-year age group (Kessler et al., 2005). Children with better mental health conditions are better able to deal with various circumstances. They have better physical health, exhibit positive social behavior, and are less vulnerable to risky behaviors as compared to those whose mental health is not in a better state and have specific mental health problems like depression (Resnick, 2000). Moreover, these children's mental health issues also burden their families and society because of the cost of treatment, distress, and disability (Busch and Barry, 2007; Merikangas et al., 2007; Saunders, 2003). These mental health problems like depression are more prevalent among girls aged 15 to 20 compared to boys of this age group (Knopf et al., 2005). These mental health problems also affect the girls' menstruation cycle, which can increase the risk of other comorbidities like migraine headaches, ovarian cancer, type 2 diabetes, breast cancer, and cardiovascular disease (Malik et al., 2021). Children's mental health is highly dependent on the environment in which they live; the family, friends, community, and society are essential in forming the behavior of adolescents. The evidence shows that positive family engagement, good parental communication, and closeness positively impact the individual's behavior (Youngblade et al., 2007).

## 2.2. Literature on Impacts of Lockdown on Adolescents and Young Adults: A Summary

Table 1 presents the characteristics of the literature reviewed. Several studies have been conducted to assess the impact of the pandemic on the health and lifestyle of young adults. It has been observed that most of the studies are carried out in context of developing economies.

**Table 1: Characteristics of the included literature**

Author & Publication year	Study design; Sampling technique	Data collection period	Sample size	Main findings
Afrin et al., (2022)	A cross-sectional study was conducted on adolescents from multiple urban and semi-urban areas of Bangladesh. self-reported online questionnaire containing questions regarding sociodemographic factors, home quarantine-related factors and mental health symptoms was distributed to collect data. Descriptive analysis, bivariate and multivariable logistic regressions were performed to measure the association of the variables. Cronbach's alpha was estimated to present the internal consistency of the scales	22 <sup>nd</sup> January 2021 to 3 <sup>rd</sup> February 2021	322	Home quarantine has a noticeable adverse impact on the mental health of teenagers. Psychological evaluations and counselling via online and offline programs are essential to improve adolescents' declining mental health conditions.
Catling et al., (2022)	Undergraduate students completed a battery of self-report questionnaires (PHQ-P, GAD-7 and SAS-SV) to assess for depression, anxiety and mobile phone addiction respectively with data being collected over a 2-year period.		434	Covid-19 has had a major impact upon student mental health, and smartphone addiction.
Daniel et al., (2022)	Patient Health Questionnaire-9 was used to assess depression, slum adversity questionnaire for slum conditions, and for COVID-19 infection authors recorded self-reported positivity status. Additional sub-group analyses of sample who had depression and	January to April 2021	3490	Adolescents with adversities were three times more likely to report depression. Adolescents who reported COVID-19 infection were about two times more likely to have depression. Sub-group analyses showed that adolescents having experienced adversities and girls

	tested positive for COVID-19 infection was conducted. Univariate and multivariate logistic regression models were used to identify factors and COVID-19 infection that were associated with depression.			were more likely to report depression following COVID-19 infection.
Demario et al., (2022)	The literature review was based on a keyword search of the PubMed, CINAHL, PsycInfo, MedLine, and Cochrane Library electronic databases. The following keywords were used: (OCD OR compulsive OR obsessive-compulsive) and (COVID OR COVID-19). The search was conducted on 12 March 2022.	1 <sup>st</sup> January 2020 and 12 <sup>th</sup> March 2022	6 studies were included in the review	Obsessive and compulsive behavior (hand washing) in young people at the greatest risk should be monitored, and intervention of mental health services should be maintained.
Duby et al., (2022)	Using qualitative and quantitative methods, framed by the syndetic theory, authors examined the intersections between mental health and the COVID-19 epidemic amongst AGYW in six districts of South Africa characterized by high rates of HIV, teenage pregnancy and socio-economic hardship	November 2020 to March 2021	565	Various psycho-social risk factors already disproportionately affect the mental health. Multisectoral interventions are needed to address the drivers of poor mental health among Adolescent Girls and Young Women (AGYW) and bolster healthy coping mechanisms; interventions seeking to mitigate the mental health impacts on this vulnerable population need to be responsive to the unpredictable pandemic environment.
Jurik et al., (2022)	Self-assessment questionnaire for the evaluation of online teaching, daily routine and mental health of children and adolescents during the lockdown period, including questions with period before lockdown.	1 <sup>st</sup> June 2021 to 30 <sup>th</sup> June 2021	1825	Respondents experienced depressed mood, decreased energy, decreased overall psychological well-being and increased tension during the lockdown period. The disease Covid-19 did not have serious impact on the examined parameters of the respondents, while online teaching, depending on the respondents' satisfaction has impact on the examined parameters of mental health.

Lockyer et al., (2022)	A group of children and their parents from the longitudinal Born in Bradford (BiB) cohort study were randomly selected and then purposively sampled by ethnicity, age, sex and deprivation. The BiB cohort is made up of 13,776 children and their families and were recruited at Bradford Royal Infirmary between 2007 and 2011	August and September 2020	41	Due to Covid-19 the experience and feelings of children has been affected. The mental and cognitive functioning is also affected. It is important to acknowledge these early adolescent experiences and continue to monitor and provide targeted support to this group of young people.
Long et al., (2022)	This study retrospectively investigated child maltreatment Chinese children and adolescents from 12 to 18 (female, 59%) before, during and after lockdown, and identified risk factors. Potential predictors including socio-economic and individual mental health status were collected.	22 <sup>nd</sup> Sep to 25 <sup>th</sup> Oct 2020 (Ist survey) 29 <sup>th</sup> Dec 2020 to 16 <sup>th</sup> Jan 2021 (IInd survey)	-	This study retrospectively investigated child maltreatment Chinese children and adolescents from 12 to 18 (female, 59%) before, during and after lockdown, and identified risk factors. Potential predictors including socio-economic and individual mental health status were collected.
Trombette et al., (2022)	This was cross-sectional study showing an improved trend. An anonymous semi-structured survey was distributed to two groups of Italian adolescents to measure the impact of quarantine on their daily life and coping strategies	May 2020	115	Adolescents with somatic symptom disorder with a low burden of physical symptoms experienced less deterioration in their relationships with parents and peers than the non-somatic symptom disorder group
Yamamoto et al., (2022)	a longitudinal study of the influence of repeated mild lockdowns during two emergency declarations in Japan. Information collected through online surveys	May 2020 to February 2021.	7893	Repeated lockdowns have cumulative negative effects on social isolation and loneliness and that susceptible populations, such as young people and those with high levels of loneliness, require special consideration during repeated lockdown situations.
Biswas & Biswas (2021)	The study was based on cross-sectional observation and online and circulated through email and social media. Descriptive statistics were used to illustrate the demographic characteristics and general responses regarding COVID-19. The association	-	209	Respondents stated varying degrees of anxiety. Female students were more anxious than male students. Academic delays and impact on daily life were positively associated with anxiety symptoms, while social support was marginally correlated.

	between stressors and anxiety levels was analyzed through correlation analysis.			
Cauberghe (2021)	An online survey study was developed using Qualtrics software and included participants between 13 to 19 years of age. Structural equation modeling was used.	16 <sup>th</sup> April 2020 to 30 <sup>th</sup> April 2020	2165	Anxious participants used social media more often to adapt to the current situation. Participants feeling lonely were more inclined to use social media. Social media was a constructive coping strategy for adolescents to deal with anxious feelings during COVID-19 quarantine.
Malik et al., (2021)	An online survey by Google form	April and May 2021	510	36.8 percent reported irregular menstrual cycles. 22.9 percent reported abdominal pain. 47.2 percent reported a change in sleeping patterns. 71.3 percent reported moderate stress, and 10.9 percent reported high stress
Mishra & Kumar (2021)	This study was a cross-sectional investigation, and a snowball sampling method was utilized for an assortment of information from the students. An online survey using google forms was used to collect data.	-	894	The majority were worried about online learning and exams and had career stress. Some were paying attention to their emotional well-being and mental health, investing more energy in unwinding, resting, and practicing after the pandemic's beginning. The study suggests Expanded social and family support just as positive psychological well-being connected to the way of life changes.
Muthuprasad et al., (2021)	A structured and unstructured preliminary questionnaire was designed with the help of a literature survey. Key informants were identified among different agricultural universities for the online survey. The link for the Google form was sent to the key informants through WhatsApp. Snowball sampling was used for the study.	10 days	307	Lack of connectivity is a significant hindrance in online learning. Students residing in remote areas suffered the most. The findings highlighted India's digital divide and lack of equity in access to uninterrupted internet, proving to be a hassle for many students.

Swarnam (2021)	Participants ranged from 20 to 40 years of age. A convenience sampling method was used for the study. The main source of primary data was respondents pursuing higher education. Microsoft Excel and Tableau were used to analyze the empirical information.	1 <sup>st</sup> July 2020 to 31 <sup>st</sup> July 2020	120	Most of the participants used social media for entertainment during COVID. Students spent maximum time on social media, approximately 3 to 4 hours daily.
Chandra (2020)	Purposive sampling was used to collect data from undergraduate and postgraduate students from students of Ahmedabad and Mumbai. Perception of Academic Stress Scale and Emotional Intelligence Scale was used, and data were analyzed using descriptive statistics with chi-square analysis. The telephonic discussion was conducted with some students to understand different coping strategies used to handle stress.	1 <sup>st</sup> April 2020 to 30 <sup>th</sup> May 2020	94	There were significant differences between the fear of academic failure and online and home environments among male and female students. Many of them have diverted to various creative activities and are taking up a course that is helping them to learn new technical skills. By using emotional intelligence and distancing them from boredom and depressive thoughts, students were trying to cope with the adverse effects arising from the pandemic situation.
Chatuvedi, Vishwakarma & Singh (2020)	A 19-set questionnaire was developed, including multiple choice questions and a few Likert scale questions. The survey was administered using the Google forms platform. The questionnaire was distributed through social media, email, and standard messaging services.	13 <sup>th</sup> July 2020 to 17 <sup>th</sup> July 2020	1182	COVID-19 has a significant impact on the mental health, education, and daily routine of the students. The COVID-19-related disruptions highlight critical challenges and provide an opportunity to further evaluate alternate measures in the education sector.
Dallavalle (2020)	A cohort of 142 child and adolescent patients with a diagnosis of migraine was enrolled at the Child Neurology and Psychiatry Unit of the IRCCS Mondino Foundation in Pavia (Italy). Socio-demographic and clinical characteristics were obtained from medical records. An online survey was used to collect information on COVID-19 exposure, the stress response to the	1 <sup>st</sup> March 2020 to 30 <sup>th</sup> April 2020.	142	The great majority were outpatients who had migraine with aura. All the patients reporting worsening symptoms progression before COVID-19 had reduced intensity during the lockdown. Symptoms frequency reduction was observed in 50% of patients presenting worsening symptoms before the lockdown. All patients who had resolved symptoms before COVID-19 were stable during the lockdown.



	lockdown period, anxious symptoms during the COVID-19 emergency, and migraine symptoms intensity and frequency before and during the lockdown.			Anxious symptomatology was significantly associated with greater migraine symptoms frequency.
Dutta et al., (2020)	An online survey was circulated using social media and electronic mail. Data classified taking 8-16 years were included in the study. The authors employed Comparative analysis among four temporal response categories. Paired t-test and ANOVA were performed.	26 <sup>th</sup> April 2020 to 10 <sup>th</sup> May 2020	153	All participants reported sleep disturbances, and simultaneous screen exposure can increase the condition.
Fegert et al., (2020)	A narrative review was used for the study. A selective scientific literature review was conducted based on the knowledge about the course of epidemics, current experiences in CAP treatment, and personal communications with CAP professionals all over Europe	-		Numerous mental health threats are associated with the COVID-19 pandemic and subsequent restrictions.
Fernandes et al., (2020)	Questionnaire published online in Qualtrics (A platform that allows questionnaire data to be collected online using an anonymous link). Descriptive statistics were used to analyze the data. Mann Whitney U test was used, and Spearman's rho correlation test was conducted.	-	185	Increase in social media use and streaming services. Compulsive internet use and increased social media use were strongly associated with the worries of COVID-19 and symptoms of depression. Regardless of country of residence, the COVID-19 outbreak had a significant effect on adolescent internet use and psychosocial well-being.
Malik (2020)	Convenience and snowball sampling methods were used. Students in India aged between 13 to 18 took part in the study. Standardized questionnaires and structured interviews were used to collect data. The impact of Events scale-Revised ((IES-R) and Multidimensional scale of perceived social support were used	4 <sup>th</sup> July 2020 to 11 <sup>th</sup> July 2020.	203	81% of the adolescents had a significant psychological effect due to the pandemic. The higher psychological impact was significantly associated with females.

	to assess the psychological impact and perceived social support			
Manzar et al., (2020)	Purposive sampling of Google news. The final list comprised 37 suicides across 11 countries.	15 <sup>th</sup> February to 6 <sup>th</sup> July 2020	37	More male suicides. Two-thirds of the suicides are from three countries: India, the UK, and the USA. Hanging was the most common method of suicide. Common suicide casualties were related to depression, loneliness, and psychological distress.
Roy et al., (2020)	Questionnaire-based survey and used google forms. Usage of social media to circulate questionnaires. Snowball sampling	First two weeks of August 2020	1065	Increase in average screen time. Increase in stress levels. Decrease in physical activity
Saurabh & Ranjan (2020)	Children and adolescents, along with their parents, were interviewed. Children in the age range of 9 to 18 were years placed in the home or institutional quarantine was included in the study.	-	121	Quarantined children and adolescents experienced more significant psychological distress than non-quarantined children and adolescents. Worry, helplessness and fear were the most common feelings experienced under quarantine.

The present paper seeks to examine the overall impact of lockdown on the entire lifestyle of adolescents and young adults. Multiple impacts were witnessed among the adolescents due to lockdown namely, internet addiction, disturbed sleeping hours, stress, change in daily routine, reduction in physical activity, poor nutrition, interruption in learning, social isolation, and academic stress. Most of the research papers reviewed for this research focused on some (not all) of the impact of lockdown. Moreover, various research paper also focuses on highlighting the impact of lockdown on mental health issues (Afrin et al., 2022; Duby et al., 2022; Jurik et al., 2022; Lockyer et al., 2022; Long et al. 2022; Fegert et al., 2020). Literature also seeks to examine the overall impact of COVID-19 on the general population. Some of the research studies have specifically documented how lockdown has resulted in a specific impact on the adolescents such as an increase in average screen time has led to an increase in stress levels and a decrease in physical activity (Catling et al., 2022; Fernandes et al., 2020; Roy et al., 2020), adolescents experienced psychological impact (Afrin et al., 2022; Daniel et al., 2022; Duby et al., 2022; Jurik et al., 2022; Malik, 2020; Saurabh and Ranjan, 2020), extensive use of social media by adolescents due to loneliness (Catling et al., 2022; Cauberghe, 2021).

### 3. Methodology

A systematic review of the literature was conducted to extract information for the study. Primarily, google scholar was used as a database to collect the literature. Studies between 2020-2022 were primarily emphasized. Various keywords/phrases such as “Impact of COVID-19 on adolescents”, “Impact of COVID-19 on young adults”, “Lockdown effect on adolescents”, “Impact of COVID-19 and lockdown on

the mental health of adolescents”, “Challenges and problems faced by adolescents during lockdown” used for searching relevant literature. Since the study focussed only on adolescents, relevant literature highlighting the adolescent problem was only considered. A descriptive approach was followed to understand the transformations experienced by adolescents during the lockdown and their reactions to situations which are presented in the following section.

#### **4. Findings and Discussion**

This section presents the findings of the study and discusses the impact of lockdown on the lifestyle of adolescents and young adults. The impact due to the closure of schools on adolescents and young adults, particularly in India is also covered in this section.

##### **4.1. Impact of COVID-19 Lockdown on the Lifestyle of Adolescents and Young Adults**

The impact of COVID-19 has been tremendous on all sections of the human family. In health emergencies like the pandemic, children are more vulnerable to get both physically and mentally affected by it because of their limited understanding and their limited ability to develop coping strategies to escape the adversity. They may not be able to communicate with their elders and may not be able to express what they feel during such times like an adult (Imran et al., 2020).

According to WHO, the death toll among adolescents has been low during the entire course of the pandemic. However, the measures taken to combat the pandemic have profoundly impacted the health and mental well-being of adolescents, and young adults seemingly would have a lasting effect on their lives. A range of parameters to understand and evaluate the impact of lockdown on adolescents are as follows:

###### ***a. Difficulties in Online mode of Education***

The current pandemic has severely affected the educational system (Mahdy and Sayed, 2022; Muthuprasad et al., 2021). The closure of schools due to the pandemic led to disruption in classes and teaching/ learning in educational institutions across the globe (Bączek et al., 2021; Hussain et al., 2022), for which online learning emerged as an alternative. However, it was difficult for the students to shift to online mode as several problems were attached (Hussain et al., 2022; Jurik et al., 2022; Muthuprasad et al., 2021; Sahu, 2020). Studies have also highlighted that countries having advanced infrastructure also were vulnerable to this issue (Boerngen and Rickard, 2021; Naik et al., 2021). It is needless to say that the online mode of education does not match offline education, where various skill sets of students are sharpened. Interaction without hesitancy and higher confidence reflect a good personality. Hence, in this education model, interaction is minimized, stalling students' overall development.

###### ***b. Increased mobile/laptop usage and internet addiction***

During the lockdown, children got much time to spend on their phones and laptops due to their online classes. The boredom they experienced due to movement restrictions can also be attributed as a primary factor for extra time spent on internet usage. It exposed them to many physical and mental health-related problems. Excessive internet among adolescents is related to their mental health. A high risk of excessive internet usage was associated with the time spent on the internet, suicidal ideation, depression, subjective stress, a low sense of happiness, and problematic substance abuse (Yoo et al., 2014). Catling et al. (2022) and Fernandes et al. (2020) have advocated that there has been an increase in internet addiction and smartphones among adolescents during the pandemic. Sun et al. (2020) have reported that apart from increased internet use, adolescents are also engaged in the consumption of alcohol and enhanced substance abuse. Mamun et al. (2020) have also stated that anxiety, depression, and stress are significantly correlated with internet addiction. It seems to be a matter of concern as it would tremendously affect their physical

and mental health. These factors will have a long-term impact, may alter their posture, may cause eye defects, and might result in chronic problems like migraine. Studies have also reported that internet addiction is highly associated with reduced low self-esteem and life satisfaction (Błachnio, et al., 2019).

*c. Sleeping Hours during lockdown*

The body needs proper rest, provided by adequate sleep, to stay healthy and fit. When the body rests, it usually heals itself without any medicine. Due to extensive social media and gaming addiction, the children's sleeping pattern has also been severely disturbed. As per NHS (National Health Service), the U.K., the recommended sleeping hours for this age group is between 8-10 hours daily. Hence, those who slept as per the ideal number of hours were in better health than those who slept either less. Lack of sleep leads to behavioral changes like frustration and irritation. Related to sleeping is one more aspect: an abrupt sleeping pattern like waking up in between the night. Fernandes et al. (2020) have highlighted that adolescents who believe that they have good quality sleep spend less time on the internet or social media. It can have an impact on their behavior and attitude and can lead to anxiety and overthinking.

*d. Stress due to COVID-19-related news*

Several scholarly studies have established that COVID-19-related news has created certain stress levels among individuals. Fernandes et al. (2020) have also reported that worrying about COVID-19 has resulted in poor sleep quality among adolescents. Kaufman's 10 traits of "healthy personality," positive emotions, and low anxiety, are among the key characteristics to maintaining proper mental health. However, most of these children could not stay positive all the time during the pandemic and were trapped in fear and stress. It has increased their vulnerability to getting stressed and fearful during similar crises in the future. Constantly being in a bad or depressive mood is likely to alter a person's behavior permanently, making them rude or introverted. Children who showed mild symptoms of the infection had to face quarantine, which had negative consequences; they exhibited psychological problems like acute stress and adjustment disorders, which may have repercussions even after months and years (Brooks et al, 2020).

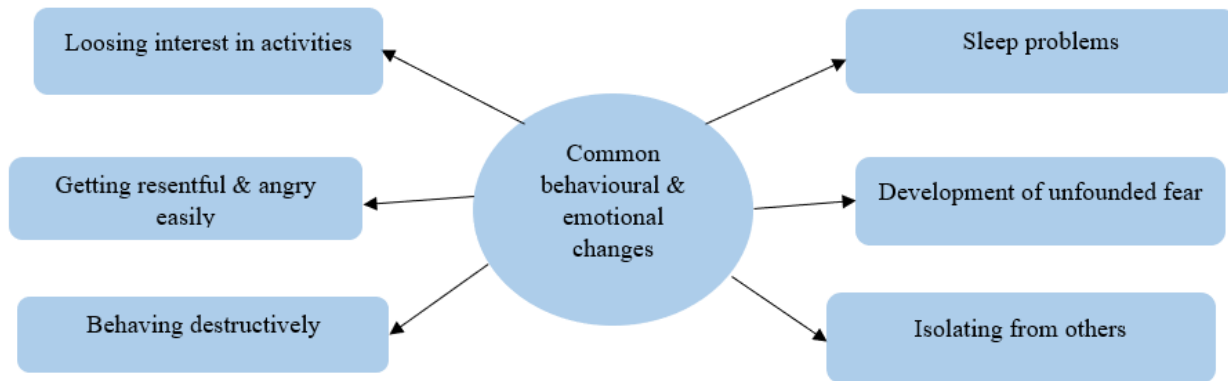
*e. Change in daily routine*

It would not be an exaggeration to state that the pandemic has brought about the entire humanity to a standstill and has resulted in massive changes in daily routine. This was witnessed in large-scale changes in the lives of adolescents. Fegert et al. (2020) have advocated that lockdown and isolation from peers initiate a significant difference in the daily routine of adolescents. Also, being at home for the entire day made children, adolescents, and young adults gain weight, develop unhealthy eating habits, lower nutrient intake, and have less physical activity. It increased the risk of obesity among them; moreover, the financial factor also played a significant role in their food choices (Stavridou et al., 2021)

*f. Indulging in physical activity*

Movement restrictions meant people were restricted to the house's four walls, resulting in children eating a lot of junk food. Hence, engaging in physical activity is highly crucial. These findings reveal how the pandemic is indirectly affecting the health of individuals.

It is found that the current pandemic brought about sudden changes in the behavioral aspects of human beings. Moreover, there have been extensive emotional changes due to COVID-19. Based on the analysis, the behavioral changes and subsequent implications of COVID-19 lockdown are also depicted in Figure 1.



**Figure 1: Behavioural changes and subsequent implications**

#### **4.2. Impact on Adolescent and Young Adults due to School Closure- An Indian Perspective**

The sudden stoppage of everyday life, by locking down of children and adults in their homes, the inevitable closure of schools and colleges, lesser peer-to-peer contact, online education, and quarantine all created a situation in which children felt trapped and had no way to escape from this. All these factors led to a negative impact on their health as well as mental well-being. For example, online education increased internet usage and more screen exposure. Children with existing mental health issues were utilizing the schools as a coping mechanism. Still, due to the closure of schools, they did not have any other alternative as online education cannot serve the purpose.

As of mid-April 2020, around 1.3 billion children and young adults were affected in 195 countries, from pre-primary to higher education (UNESCO). As highlighted by Audrey Azoulay, Director General of UNESCO, "While the temporary school closures as a result of health and other crisis are not new; unfortunately, the global scale and speed of the current educational disruption are unparalleled and, if prolonged, could threaten the right to education." The closure of schools and colleges led to disruptions, even worsening the existing gaps in the education systems. Some of the impacts particularly on the studies of the adolescent are as follows:

##### ***a. Interruption in learning***

Learning is quite an essential aspect of the all-around development of children. Adolescents possess sharp minds to grasp things faster, and school plays a significant role in providing such opportunities. They get exposure, learn new things, and are engaged in extracurricular activities. However, the lockdown resulting in the closure of schools has deprived adolescents of such privileges, interrupted their learning, and minimized children's growth and development. The deviation in children's lives will require substantial time to heal things and put them back on track. Due to the lockdown, certain habits they have culminated will take time to go away.

##### ***b. Poor nutrition***

Nutritious food plays a significant role in the mental development of children. Before lockdown, students had access to minimal nutrition due to Mid Day Meal Schemes (MDMS); however, the lockdown deprived the students of that privilege. In order to enhance enrolment and reduce the dropout ratio in schools, the MDM scheme was launched in India. It had become the primary source of food for children belonging to households below the poverty line. The closure of schools meant that they were deprived of such facilities. Realizing the situation's gravity, the Government tried to start an initiative to supply food items to every

household. In turn, the District Collector was given the supreme authority and handed over the responsibility to the dealer to distribute the food items. This was done to ensure that students and their families benefit during such difficult times. But this initiative proved less effective as there were cases where these dealers hoarded this supply and gave it to his relatives and acquaintances and, in some instances, were used by his own family. When the students were in school, they had the habit of following a proper eating routine, but the closure of schools has deprived them of such arrangements.

***c. Digital divide***

Before the pandemic, online education was used as a supportive mechanism to contribute along with offline methods. However, the pandemic and subsequent lockdown closure of schools forced a scenario for online teaching and learning and came with multiple challenges. The amount of time required to be spent before the laptop for attending online classes was humongous. The digital divide was visible due to the pandemic, with the poor struggling to afford electronic gadgets to ensure their children participate in online classes. Since online education became the new normal, those children whose families had no smartphones or laptops felt deprived of the opportunity to learn. It became one of the significant challenges to maintaining distance learning. This digital divide shows the plethora of issues that the Indian democracy witnesses.

***d. Social isolation***

Several scholars and psychologists have time and again argued that social connectedness and interactions play a crucial role in the growth and development of adolescents. Schools and colleges are the places where children get the opportunity to get exposed to the social world and to enhance their social behavior and social competence. This process of socialization has been stalled due to the closure of schools. The same situation was also found in Japan as shown by the study of Yamamoto et al., (2022). In schools, children bond with their peers and teachers and usually share their problems. However, the lockdown is making them vulnerable and leading to self-isolation which, if not addressed urgently, can create a conducive atmosphere for mental health issues and depression for adolescents.

***e. Academic stress***

There has been an increase in the academic stress experienced by students due to the online mode of education. They are becoming more anxious about their marks and academic performance. Students in the final year of their degree programs are more vulnerable to stress thinking about their placements and jobs. Mahapatra and Sharma (2020) have revealed that social restrictions have increased academic pressure among students, especially in secondary and tertiary education settings. Stress and other mental health issues play a crucial role in forming the attitude and perspective of an individual towards things. In the life of a student, stress related to their studies is prevalent. During the pandemic, students were vulnerable to stress. The same was also advocated by Jurik et al. (2022) among the adolescents in Slovakia. Students were questioned regarding academic focus due to online classes relating to examinations or other related assessments, and 42.6 percent affirmed the same. Scott Barry Kaufman, a psychologist, has highlighted about ten good personality traits in one of the U.S. magazines, Scientific American, one of which is less vulnerability to stress (Firman, 2018).

**5. Conclusion**

This paper focuses on studying the impact of lockdown on adolescents and young adults. With inevitable lockdown, closure of schools, and the subsequent shift of education to online mode, there has been a significant change in the lifestyle of these individuals and is likely to pose a more substantial threat to their overall development, including their personality development. A systematic literature review was carried

out to accomplish the objectives of the study. A descriptive approach was followed to understand the transformations the adolescents and young adults experienced in their lifestyle during the lockdown and their reactions to situations. The results show that there is a shift from their normal lifestyle and daily routine, which will impact their future development.

During the pandemic, aspects relating to mental health have come into the limelight. It has been argued repeatedly that the mental health of this section of the population needs proper attention and care. The current pandemic has made us realize the importance of recognizing mental health as a crucial aspect of an individual's life. During the pandemic, there have been significant changes in the lifestyle of adolescents and children, which has and will impact their mental health. Children with special needs, intellectual impairment, and those with pre-mental illness found it very difficult to cope with the situation, with their inability to go to hospitals, consult their doctors, and less attention from teachers. It made them vulnerable to other problematic behavior like aggression and irritation. It was also observed that the lockdown and the subsequent changes have significantly affected the mental health of the children and young adults, which will have a role in shaping their cognitive and psychosocial aspects in the future. The study found that difficulties in the online mode of education, effects on sleeping hours during the lockdown, high stress, change in daily routine, poor nutrition, and social isolation are some of the major impacts of the lockdowns on adolescents and young adults.

The unexpected COVID-19 resulted in multiple inevitable changes and challenges for all. Post pandemic situation will witness a new world order with different priorities, different actions, and reactions, with some continuing problems and with some new ones. As U.N. Secretary-General rightly pointed out, currently, the world is facing a scenario that was never witnessed before. Hence, we need to take the positives and lessons we experienced during this phase. The adults should help the children, and adults should help each other become better and stronger individuals than before the pandemic. It is important to acknowledge these early adolescent experiences and continue to monitor and provide targeted support to this group of young people.

The present study will be very useful for academicians, scholars, and policymakers or decision-makers to understand how COVID-19 has impacted human health and what measures can be taken to take care of the issues. It is also helpful for the academicians who are looking for the transitions in their academic strategies and teaching mode to understand the impact and cater to the students accordingly for their overall personality development. The suggestions for the policymakers are presented in the following section. This piece of research is unique in a manner as it tries to understand the overall and total impact of the lockdown on adolescents and young adults. In addition to that it also tries to explore impact of academic aspects on adolescents in Indian scenario. Most of the research studies have tried to explore the specific impact of lockdown on the general population.

### **5.1. Policy Suggestions:**

Lockdown had a considerable impact on the adolescent and young adults' lifestyles and has affected these individuals' mental health and psychiatry. Hence, this study is crucial to making interventions in this sphere. This study also suggests neutralizing the impact of future emergencies and pandemics on the mental health of young adults and adolescents. Hence, the urgent need is to focus on the present issue and take considerable steps to address the issue at hand. NGOs' role is crucial, and Governments can collaborate with the NGOs to cater to the needs of the individuals. The Government can incentivize the NGOs and extend support to spread awareness and enlighten children about the coping strategies to deal with mental

health issues. Moreover, at all levels, this initiative can be introduced; in schools, colleges, universities, and communities, students can receive adequate support to build their personality foundation better.

Moreover, the Government recently launched an app named MANAS (Mental Health And Normalcy Augmentation System) to promote mental health awareness and extend support to those with mental health issues. On similar grounds, Government can take specific initiatives for this particular age group, which will be aligned with their specific needs and requirements to extend support to these children in these difficult circumstances. This age group spends most of their time on their phones and laptops so that these applications can be more effective in such situations.

### 5.2. Limitations and Future Research Directions

The present study is limited to the impact of COVID-19 lockdown, especially on the lifestyle of adolescents and young adults. The findings of the study are mainly based on the available literature with a lack of evidence from the primary respondents. Hence, this study presents several research avenues for the future. The findings can be validated and empirically tested through the primary study in a specific region. Also, the impact can be determined in different settings such as general impact, impact on particular age group, impact on education, and gender-wise impacts. Considering the identified factors, developing a framework to introduce the measures for improving the situation can also be an interesting study.

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