

Research Article

# The factors associated with mental health and the impact of COVID-19

Linda Martinez\*, Rebecca Perley, Salim Alani and Henry O'Lawrence

College of Health and Human Services, California State University, Long Beach, California, USA

## Abstract

The mental health impact caused by COVID-19 on adolescents was reviewed, and due to limited data, adult results were included, to support our assertion that additional mental health resources are needed for both adult and young people. Positive gains would include improved socio-emotional skills, a decrease in maladaptive behaviors contributing to the disruption in interpersonal relationships and lifetime achievements, suicide attempts and psychopathology, persistent mental health concerns found in the juvenile justice and foster care systems and substance use addiction later in adulthood (The American Psychological Association, 2019; Garber & Weersing, 2010; Office of Juvenile Justice and Delinquency Prevention, n.d.; Tomasello, 2018;). Geiger & Davis, 2019, found that 13% or 3.2 million United States (U.S.) teenagers aged 12 - 17 years old experienced at least one major depressive episode with the depression rate increasing 59% from 2007 to 2017. Therefore, we assert that developing programs to overcome barriers to mental health aid can reduce instances experienced in adolescence and adulthood.

## More Information

**\*Address for Correspondence:** Linda Martinez, College of Health and Human Services, California State University, Long Beach, 6285 E. Spring Street #380N; Long Beach, CA 90808, California. Email: Linda.Martinez@csulb.edu

**Submitted:** July 25, 2022  
**Approved:** August 09, 2022  
**Published:** August 11, 2022

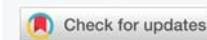
**How to cite this article:** Martinez L, Perley R, Alani S, O'Lawrence H. The factors associated with mental health and the impact of COVID-19. *J Community Med Health Solut.* 2022; 3: 048-053.

**DOI:** 10.29328/journal.jcmhs.1001019

**ORCID:** <https://orcid.org/0000-0002-4468-7137>

**Copyright License:** © 2022 Martinez L, et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

**Keywords:** Adult; Adolescents; Mental Health Issues; COVID; Youth; Teenagers; Depression; Suicide; Self-injury



## Introduction

According to the World Health Organization [1], 1 in 4 adolescents experiences a mental disorder by the age of 15, globally. The most common diagnoses are anxiety and depressive disorders that are associated with a lifetime impairment and/or distress. Mental health disorders have been more prevalent than ever with an alarming increase in young adults. The National Institute of Mental Health [2] report suggested that 30.6% of young adults aged 18 - 25 years had the highest prevalence of mental illness compared to 25.3% of adults aged 26 and above. However, 42.1% of this group of young adults received a lower number of mental health services than all other adults which represented 46.6%. It is very significant to evaluate the existing barriers and difficulties as to why this age group is not seeking help; these reasons include, but are not limited to personal perception of social stigma and attitudes towards getting mental health treatments, lack of motivation or emotional support, ability to trust strangers and disclose personal feelings, availability of transportation, accessibility to professional help and technology use [3].

There exists a high prevalence of mental health disorders in adolescents, as the literature review suggested, many adolescents who are involved in the juvenile justice system and/or in foster care have at least one diagnosable mental

health problem [4,5]. As anxiety and depression are likely to occur concurrently, these symptoms can interfere with one's interpersonal relationships and life achievements and can lead to a higher risk of suicide attempts and psychopathology [6]. The higher occurrence and recurrence of mental health symptoms and behavioral disorders have negatively affected young adults with cognitive-behavioral dysfunction, mood dysregulation, disruption of school/work functioning, and lastly, substance dependence [7]. Mood and anxiety disorders contributed to the development of substance use disorders (SUDs) during adolescence, which is potentially caused by familial and environmental risk factors, influencing the exacerbation of substance use dependence later in life [8].

The Center on the Developing Child [9] also indicated that early prevention and intervention can lessen the impact of environmental risk factors and promote an emotionally healthy lifestyle early in the life cycle. The American Psychological Association [10] indicated that prevention and early intervention programs in early childhood can improve children's academic achievement, socio-emotional skills, and self-regulation while reducing defiant behaviors and the likelihood of the development of specific mental and behavioral health problems or substance use addiction later in adulthood. There has never been a candid marketing effort for mental health services, as insurers do not adequately promote mental health coverage [11]. Therefore, the public



view lacks information on wellness promotion and prevention programs, as there is still a stigma on mental health services and negativity towards substance abuse treatments [12].

The consequences of not addressing mental health in adolescents are often being overlooked and extended to chronic conditions in adulthood, resulting in unfulfilled lives with limited opportunities due to mental health impairment. Jaworska and MacQueen [13], noted that treatments for adolescent depression and anxiety are entirely based on adult studies, in which the average age of studied individuals consisted of ages well beyond adolescent age. Moreover, in the current market, there is no availability for outpatient programs that specialize in adolescents' mental health, consequently leaving them with unsuitable treatments for this specific age group.

Health Insurance Portability and Accountability Act (HIPAA) established national standards and guidelines for the protection and privacy of sensitive protected health information (PHI) of patients that is used within healthcare organizations. There are currently six key components to the Act, including HIPAA Privacy Rule, HIPAA Security Rule, Administrative Rules, Breach Notification Rule, Enforcement Rule, and Final Omnibus Rule of 2013 that extensively act as security safeguards for administrative, physical, technical, and policies, procedures, and documentation process [14].

Another federal legislation is the Health Information Technology for Economic and Clinical Health (HITECH) Act which incentivizes healthcare providers to adopt the meaningful use of electronic health records (EHRs) and design programs to support clinical decisions and reduce medical errors. The enactment of HITECH resulted in the expansion of EHRs with a goal of quality improvement, patient safety, and an increase in care coordination. Concurrently, the HITECH Act strengthened the enforcement of the legal liability of HIPAA with more financial penalties for non-compliance and data breach [14]

### Research problem

The current shortage of psychiatrists has increasingly affected high clinician burnout, along with high turnover rates in the mental health field. Morse, et al. [15] found that 21% - 67% of mental health workers experienced high levels of burnout, with 54% having high emotional exhaustion and 38% reporting high depersonalization. Burnout is highly correlated with negative staff attitudes, and less commitment to the organization and thereby causing disruption in continuity of care and significantly reducing client's health outcomes and satisfaction.

Andersen and Teicher [16] reported that major depressive disorders (MDD) are most commonly found in adolescence because their brain developmental activities are maximally sensitive to environmental influences with maturational events during this period and thus, they are more vulnerable

and susceptible to the development of depression. Geiger & Davis [17] reported that the 2017 National Survey on Drug Use and Health found that 13% or 3.2 million U.S teenagers aged 12 - 17 years experienced at least one major depressive episode with the overall depression rate inevitably increasing 59% from 2007 to 2017; while Monto, et al. [18] reported that there is a prevalence of high risk for non-suicidal self-injury among the population of adolescents, carried out by more than 1 in 10 high-school-aged boys and 1 in 4 high-school-aged girls. Also, the public view lacks information on wellness promotion and prevention programs, as there is still a stigma on mental health services and negativity towards substance abuse treatments [12].

Critical environmental and social factors also strongly impact children and adolescent mental health, hence adolescent transition becomes a distinct period where the incidence of mental disorders rises dramatically [13]. The 2017 National Survey on Drug Use and Health found that 13% or 3.2 million U.S teenagers aged 12 - 17 years experienced at least one major depressive episode with the overall depression rate inevitably increasing by 59% from 2007 to 2017 [17].

### Purpose of the study

Although there are multiple programs for mental health services, there are very limited programs for adolescents, unless it is referred directly from probation, Juvenile Court, Social Service Agency, Child Protective Agency, or individuals aged between 14–21-year-old who have at least two psychiatric hospitalizations or one psychiatric hospitalization for at least 10 days and/or incarcerations [19]. Other mental health programs for adolescents are not eligible for Medicare and Medicaid.

After the COVID-19 pandemic, the growth of digital care services has been boosted in the mental and behavioral health sector at a remarkable rate, exhibiting a strong growth of 11.3% in 2020 [20]. Telemedicine can never fully replace in-person care, but it can be furnished as one of many powerful clinical tools to enhance the access and choices of Americans (Medical Learning Network, 2022). It is crucial to take steps to expand telehealth benefits since it is a key component in advancing the delivery of care today. Video calls allow the continuity of care and follow-up, prevent delaying treatments, and simultaneously integrate behavioral health care and primary care [21].

Therefore, the purpose of this research is to determine the factors associated with mental health and the impact of COVID-19 on people. The implementation of the Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA) and the Patient Protection and Affordable Care Act (ACA) allow individuals with mental illness to receive protection in three distinct ways: federal parity requirements for mental health benefits, provisions of essential health benefits that include behavioral health services in all qualified health



plans and increased access in quality and affordable care for people with mental health conditions [22]. The American Psychological Association (2019) indicated prevention and early intervention programs in early childhood can notably improve children in academic achievement, socio-emotional skills, and self-regulation while reducing defiant behaviors and the likelihood of the development of specific mental and behavioral health problems or substance use addiction later in adulthood.

### Significance of the study

According to World Health Organization [1], it is estimated that one in seven (14%) 10–19-year-olds experience mental health conditions, yet these remain predominantly untreated. Mental health referrals from schools doubled after students returned to school after the COVID-19 isolation, as many young Americans were subjected to social isolation, loss of routines, and grief, showing an alarming concern for behavioral health needs due to suicidal thoughts, depression, anxiety, and disciplinary challenges. As of now, there is critically limited access to child and adolescent psychiatrists, with just over 1,000 psychiatrists for more than 8 million adolescents in California [23]. In 2020, a 30% increase in mental health emergencies among young people with suicide remains the second leading cause of death among those aged 10 to 24 [24].

### Conceptual framework

Although there are multiple programs for mental health services, there are very limited programs for adolescents, unless it is a direct referral from probation, Juvenile Court, a Social Service Agency, Child Protective Agency, or individuals ages between 14–21-year-old who have at least two psychiatric hospitalizations or one psychiatric hospitalization for at least 10 days and/or incarcerations [19]. Other mental health programs for adolescents in the area are not eligible for Medicare and Medicaid.

Health Insurance Portability and Accountability Act (HIPAA) established national standards and guidelines for the protection and privacy of sensitive protected health information (PHI) of patients that is used within healthcare organizations. There are currently six key components to the Act, including HIPAA Privacy Rule, HIPAA Security Rule, Administrative Rules, Breach Notification Rule, Enforcement Rule, and Final Omnibus Rule of 2013 that extensively act as security safeguards for administrative, physical, technical, and policies, procedures, and documentation process [14].

### Research methods

The overall purpose of this study was to determine the factors associated with mental health among adults and adolescents and what effect COVID-19, testing, and the whole pandemic had on them. The overall research design for this study can best be described as both a qualitative and quantitative descriptive study. It is a qualitative study based on a particular phenomenon within a natural setting

using multiple sources of evidence and it is a quantitative descriptive analysis study, designed to explore mental health issues. For the quantitative part of the study, the analysis of CHIS data design provides simple summaries of the sample, the measures, and the descriptive statistics using SPSS to provide a summary that enables comparisons across other units of measurements.

### Dataset and statistical analysis

CHIS 2019-2022 data were collected between September 2019 and November 2020. The CHIS is a population-based multimode (web and telephone) survey of California's residential, noninstitutionalized population conducted every other year since 2001 and beginning continually in 2011. CHIS is the nation's largest state-level health survey and one of the largest health surveys in the nation. The UCLA Center for Health Policy Research (UCLACHPR) conducts CHIS in collaboration with multiple funding sources from public, private, and non-profit organizations. CHIS collects extensive information for all age groups on health status, health conditions, health-related behaviors, health insurance coverage, access to health care services, and other health and health-related issues.

The CHIS 2019-2022 overall household response rate was 12.2% (the product of the screener response rate of 16.2% and the extended interview response rate at the household level of 75.2%). CHIS uses the RR\$ type response rate described in the AAPORT (The American Association for Public Opinion Research), 2016 guidelines. The extended interview response rate for the ABS sample varied across the adult (72%) child (85.7%) and adolescent (32.2%) interviews. The adolescent rate includes the process of obtaining permission from a parent or guardian (CHIS- 2019-2020).

SPSS was used to analyze and determine correlations between COVID-19 and adult mental health. The researchers utilized a questionnaire related to COVID-19 and mental health, such as COVID-19 testing history and effects of the pandemic, mental health status, perceived need, access and utilization of mental health services. The measures used to analyze the data include descriptive statistics, such as frequencies, percentages, descriptive and Chi-square. The research question for this study was if adult mental health is associated with the COVID-19 pandemic. The statistical analysis conducted is described in Table 1.

### Findings and analysis of results

The information collected from the CHIS dataset centered on mental health status, perceived need, access and utilization of mental health services; suicide ideation and attempt, and finally, mental health and technology. The number of

**Table 1:** Summary of statistical analysis.

Hypothesis	Dependent Variable	Independent Variable	Statistical Test
COVID-19 pandemic is associated with the adult mental health problems	Mental health COVID-19 Pandemic	Adult/ Adolescents	Descriptive Chi-square



completed CHIS 2019-2020 interviews by mode of interview and instrument done through the web is 2,000 and the number completed by phone is 212 for a total of 2,212 adults who participated in the study. This study analyzes responses to the various questions associated with mental health and the effect of COVID-19. The first part of the analysis focuses on the descriptive statistics in Table 2 which describes the questions and the responded answers reported with the mean and standard deviation of each answer.

These questions derived from the dataset for adults were utilized since there was no specific data for adolescents on the issue of mental health. Therefore, the findings for the survey instruments were only focused on adults, not adolescents specifically. The data sets were also analyzed to determine the significance of the associations between the variables identified with another set of questions on issues concerning whether or not the respondent contacted their health professional about COVID-19 if the health professional suspected they had COVID-19, if they ever received a positive result for COVID-19, increases in hospice physicians/hospice nurse (HH) during COVID stay at home (interpersonal conflict), at home order (snapping or yelling), or increase in HH during COVID-19 stay at home order (none of the factors mentioned). A Chi-Square test was employed using the data that was cross-tabulated. The analysis revealed the critical value (CV), degrees of freedom (*df*), and the *p* - value. The significance of the associations was determined based on a *p* - value of < 0.05. A Chi-square test was run to determine the significance level of the associations between all the three questions based on a *p* - value of < .05, if adolescents/adults utilize various peer support art therapy for mental health, symptoms will decrease, and resilience will increase (Table 3).

**Table 2:** Statistical analysis of participants.

	N	Mean	Std. Deviation
Feel Hopeless Worst Month	21949	-.08	1.872
Feel Nervous Worst Month	21949	-.18	1.665
Feel Restless Worst Month	21949	-.13	1.768
Feel Depressed Worst Month	21949	-.04	1.938
Feel Everything an Effort Worst Month	21949	-.13	1.769
Feel Worthless Worst Month	21949	.02	2.049
Feel Nervous Past 30 Days	21949	3.96	.949
Feel Hopeless Past 30 Days	21949	4.50	.830
Feel Restless Past 30 Days	21949	4.02	.978
Feel Depressed Past 30 Days	21949	4.63	.734
Feel Everything an Effort Past 30 Days	21949	4.26	.979
Feel Worthless Past 30 Days	21949	4.68	.728
Valid N (listwise)	21949		

In determining if the participant contacted a health professional about concerns of COVID-19, it was determined with a Chi-Square value of 5238.684, *df* of 2 and *p* - value of .000, which is statistically significant, showing that there is a relationship between people with mental health issues and the importance of individual and the environmental factors to health and COVID-19. If the health professional suspected respondent had COVID-19, it was determined with Chi-Square value 8224.713, *df* of 2 and *p* - value of .000; in determining if respondent ever received a positive test result for COVID-19, it was determined with Chi-Square value of 3786.577, *df* of 2 and *p* - value of .000; for if participant increase in hospice physicians/hospice nurse (HH) during stay-at-home interpersonal conflict, it was also determines with Chi-Square value of 25830.702, *df* of 2 and *p* - value of .000; for if participant increase attitude increase in (HH) during COVID-19 stay-at-home order (snapping/yelling); it was determine with Ch-Square value of 25532.619, *df* of 2 and *p* - value of .000; and finally, a test was also conducted if none of these increased in HH during COVID stay-at-home order; and Chi-Square value of 121328.500, *df* of 2 and *p* - value .000 is statistically significant and the whole analysis does support the hypothesis that a relationship exists between mental health and COVID-19.

The majority of participants indicated that the increase in HH during COVID stay-at-home order did affect them while it wasn't the case for the rest of the questions. The majority of the participants (17766) indicated that they will get the COVID-19 vaccine if available, while about 4183 say they will not get the COVID-19. Only about 287 participants indicated that they were treated unfairly due to their race or ethnicity, while 21949 answered "NO" that they were not treated unfairly due to their race or ethnicity. A total of 18582 participants indicated that they continued work as essential workers during the COVID-19 outbreak, while only 3367 indicated that they did not and were not considered essential workers. Among the participants, only about 5105 working at home, while 16844 did not during the COVID-19 outbreak.

### Conclusion and recommendations

A national study report by Reinert, Fritze, & Nguyen (2021) indicated that nearly 50 million or 19.85% of American adults experienced a mental illness in 2019, while about 4.58% reported having serious thoughts of suicide. When it comes to adolescents, 15.08% experienced a major depressive episode in the past year while over 60% of the adolescents with depression did not receive any mental health treatment. For

**Table 3:** Test statistics.

Test Statistics	Contacted Health Professional About COVID-19 Concerns	Health Professional Suspected Respondent Had COVID-19	Ever Received Positive Test Result for COVID-19	Increase in HH during At-Home Order: Interpersonal Conflict	Increase in HH During COVID Stay-At-Home Order: Snapping/Yelling	Increase in HH during COVID Stay-At-Home Order: None of These
Chi-Square	5238.684 <sup>a</sup>	8224.713 <sup>a</sup>	3786.577 <sup>a</sup>	25830.702 <sup>a</sup>	25532.619 <sup>a</sup>	121328.500 <sup>a</sup>
df	2	2	2	2	2	2
Asymp. Sig.	.000	.000	.000	.000	.000	.000

Note: a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1463.3.



adults, more than half of adults with a mental illness did not receive treatment and over 2.5 million adolescents (10.6%) in the U.S. have severe major depression. The report also indicated that about 11.1% of Americans with a mental illness are uninsured and only 8.1% of children had private insurance that did not cover mental health services, totaling 950,000 adolescents. California is ranked 24<sup>th</sup> in higher prevalence of mental illness and lower rates of access to care. For adult rankings, California is ranked 28<sup>th</sup>. States that are ranked 1 - 13 have a lower prevalence of mental illness and higher rates of access to care for adults and states that are ranked 39 - 51 indicate that adults have a higher prevalence of mental illness and lower rates of access to care. Adolescents are ranked 36 in California among states that have a lower prevalence of mental illness and higher rates of access to care for youth.

Mark, et al. [25] also reported that public opinion surveys found that 40% of Americans are struggling with adverse mental health conditions, such as depression and anxiety with about 30% of the 5,412 respondents reporting symptoms in the last 30 days, trauma-and stressor-related disorders with 25% reporting symptoms, and use of alcohol or drugs to cope with the pandemic, with 13% reporting symptoms. In California, 51% of the City of San Bernardino is reported as the proportion of residents that are living in highly COVID-vulnerable neighborhoods with high rates of poor mental health.

In conclusion, it is agreed upon in this research that addressing health-related social needs is imperative to improving mental health outcomes. In California specifically, addressing homelessness, high rental fees, combined with unemployment, job insecurity, and financial hardship does affect a person and family's ability to have access to and afford mental health treatment and support.

The housing insecurity and financial hardships have direct negative impacts on the mental health of individuals and communities; and, unemployment, in particular, has also been identified as a risk factor for suicide, thereby misnaming unemployment as a result of COVID-19 that may directly impact mental health outcomes. The COVID-19 pandemic, increased financial burdens, the effects of social distancing, stay-at-home orders, financial stress, constant uncertainty about the future, poor health and mental health issues and outcomes have driven global discussion over the past years and many qualitative and quantitative studies reports suggest possible recommendations that can help stop the worsening of the pandemic. The findings for this research are based on the current data collected in California. While the review measures are not a complete picture of the mental health or overall mental health system among adults and adolescents, the answers do provide a strong foundation for understanding the prevalence of mental health concerns in California, as well as issues of access to insurance and treatment. It is important to continue to explore new measures that allow more accuracy in determining mental illness among the population.

## References

1. World Health Organization. International. Adolescent mental health. World Health Organization. 2021. <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>
2. National Institute of Mental Health. Mental illness. 2022. <https://www.nimh.nih.gov/health/statistics/mental-illness>
3. Ashworth E. Barriers to access mental health support: Why adolescents don't seek help. National Elf Service. 2020. Retrieved from: <https://www.nationalelfservice.net/populations-and-settings/child-and-adolescent/barriers-support-mental-health-adolescents/>
4. Office of Juvenile Justice and Delinquency Prevention. (n.d.). Intersection between mental health and the Juvenile Justice System. <https://ojjdp.ojp.gov/model-programs-guide/literature-reviews>
5. Tomasello J. Shining a spotlight on systems-involved youth. American Youth Policy Forum. 2018. <https://www.aypf.org/blog/shining-a-spotlight/>
6. Garber J, Weersing VR. Comorbidity of Anxiety and Depression in Youth: Implications for Treatment and Prevention. *Clin Psychol (New York)*. 2010 Dec;17(4):293-306. doi: 10.1111/j.1468-2850.2010.01221.x. PMID: 21499544; PMCID: PMC3074295.
7. Lam RW, Kennedy SH, McIntyre RS, Khullar A. Cognitive dysfunction in major depressive disorder: effects on psychosocial functioning and implications for treatment. *Can J Psychiatry*. 2014 Dec;59(12):649-54. doi: 10.1177/070674371405901206. PMID: 25702365; PMCID: PMC4304584.
8. Kelly TM, Daley DC. Integrated treatment of substance use and psychiatric disorders. *Soc Work Public Health*. 2013;28(3-4):388-406. doi: 10.1080/19371918.2013.774673. PMID: 23731427; PMCID: PMC3753025.
9. Center on the Developing Child. Early childhood mental health (In Brief). 2013. Retrieved from [www.developingchild.harvard.edu](http://www.developingchild.harvard.edu)
10. American Psychological Association. Child and adolescent mental and behavioral health resolution. 2019. Retrieved from: <https://www.apa.org/about/policy/child-adolescent-mental-behavioral-health>
11. Bogusz GB. Health insurers still don't adequately cover mental health treatment. National Alliance of Mental Illness. 2020; Retrieved May 22, 2022: from <https://www.nami.org/Blogs/NAMI-Blog/March-2020/Health-Insurers-Still-Don-t-Adequately-Cover-Mental-Health-Treatment>
12. Dobransky KM. Reassessing mental illness stigma in mental health care: Competing stigmas and risk containment. *Soc Sci Med*. 2020 Feb 15;249:112861. doi: 10.1016/j.socscimed.2020.112861. Epub ahead of print. PMID: 32087486.
13. Jaworska N, MacQueen G. Adolescence as a unique developmental period. *J Psychiatry Neurosci*. 2015 Sep;40(5):291-3. doi: 10.1503/jpn.150268. Erratum in: *J Psychiatry Neurosci*. 2015 Nov;40(6):386. PMID: 26290063; PMCID: PMC4543091.
14. California Health and Human Services. (2021). Federal and State Health Laws – California Health and Human Services. Retrieved May 5, 2022: from <https://www.chhs.ca.gov/ohii/health-laws/>
15. Morse G, Salyers MP, Rollins AL, Monroe-DeVita M, Pfahler C. Burnout in mental health services: a review of the problem and its remediation. *Adm Policy Ment Health*. 2012 Sep;39(5):341-52. doi: 10.1007/s10488-011-0352-1. PMID: 21533847; PMCID: PMC3156844.
16. Andersen SL, Teicher MH. Stress, sensitive periods and maturational events in adolescent depression. *Trends Neurosci*. 2008 Apr;31(4):183-91. doi: 10.1016/j.tins.2008.01.004. Epub 2008 Mar 10. PMID: 18329735.
17. Geiger AW, Davis L. December 23). A growing number of American teenagers – Particularly girls – Are facing depression. Pew Research Center. 2020. <https://www.pewresearch.org/fact-tank/2019/07/12/a-growing-number-of-american-teenagers-particularly-girls-are-facing-depression/>.



18. Monto MA, McRee N, Deryck FS. Nonsuicidal Self-Injury Among a Representative Sample of US Adolescents, 2015. *Am J Public Health*. 2018 Aug;108(8):1042-1048. doi: 10.2105/AJPH.2018.304470. Epub 2018 Jun 21. PMID: 29927642; PMCID: PMC6050840.
19. Children and Youth Behavioral Health Specialized Services. Orange County California - Health Care Agency. (n.d.). Retrieved May 22, 2022: from <https://www.ochealthinfo.com/about-hca/behavioral-health-services/more-mhrs/children-youth-behavioral-health-cybh/specialized>
20. Fortune Business Insights. (rep.). The U.S. Behavioral Health Market Size, Share & COVID-19 Impact Analysis, By Type (Behavioral & Mental Health, Substance Abuse, Eating Disorders, Trauma, and Others), By Payor (Public Health Insurance and Private Health Insurance/ Out-of-Pocket). 2021; Forecast, 2021-2028. , from <https://www.fortunebusinessinsights.com/u-s-behavioral-health-market-105298>
21. Shore JH. What is Telepsychiatry? 2020. Retrieved from: <https://www.psychiatry.org/patients-families/what-is-telepsychiatry>
22. Baumgartner J, Aboulafia G, McIntosh A. The ACA at 10: How has it impacted mental health care? 2020. Retrieved from: <https://www.commonwealthfund.org/blog/2020/aca-10-how-has-it-impacted-mental-health-care>
23. Larsen K. The need for bold action to address our children's mental health. *CalMatters*. 2022. Retrieved May 10, 2022: from <https://calmatters.org/commentary/2022/03/the-need-for-bold-action-to-address-our-childrens-mental-health/>
24. Centers for Disease Control and Prevention (CDC). Facts about suicide. Centers for Disease Control and Prevention. 2022. Retrieved May 10, 2022: from <https://www.cdc.gov/suicide/facts/index.html>
25. Czeisler MÉ, Lane RI, Petrosky E, Wiley JF, Christensen A, Njai R, Weaver MD, Robbins R, Facer-Childs ER, Barger LK, Czeisler CA, Howard ME, Rajaratnam SMW. Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic - United States, June 24-30, 2020. *MMWR Morb Mortal Wkly Rep*. 2020 Aug 14;69(32):1049-1057. doi: 10.15585/mmwr.mm6932a1. PMID: 32790653; PMCID: PMC7440121.
26. Centers for Medicare & Medicaid Services (CMS). CMS Manual System Pub. 100-07 State Operations Provider Certification. Department of Health & Human Services. 2008; Retrieved May 5, 2022: from <https://www.cms.gov/Regulations-andGuidance/Regulations-and-Guidance>
27. Destinations For Teens Mental Health Treatment Center. (n.d.). Retrieved May 10, 2022: from <https://www.destinationsforteens.com/adolescent-teen-mental-health-treatment/>
28. Reinert M, Fritze D, Nguyen T. The state of mental health in America 2022. *Mental Health America*. 2021. Retrieved from: [www.hhanational.org/ces](http://www.hhanational.org/ces)