

Review

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Review

Adolescent Suicide During the COVID-19 Pandemic: Bullying Dynamics, Risk Factors, and Prevention Strategies: An Updated Narrative Review

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Abstract

Objectives: To analyze the evolution of suicide rates among adolescents during the COVID-19 pandemic, examine the evidence regarding the relationship between bullying, cyberbullying, and suicidal behavior in adolescents during this period, and identify evidence-based prevention strategies. **Methods:** This study is a narrative literature review synthesizing current knowledge on adolescent suicide during the COVID-19 pandemic, was conducted following a structured search strategy across five databases (PubMed, CINAHL, PsycINFO, Embase, and Dialnet) for publications between 2020 and 2025, with quality appraisal using STROBE and SRQR guidelines. MeSH and DeCS keywords were used with Boolean operators. Inclusion criteria comprised peer-reviewed articles investigating adolescent suicide during COVID-19, including quantitative, qualitative, mixed-methods studies, and relevant systematic reviews. **Results:** Twenty-six articles were selected for analysis, representing studies from 10 countries across four continents. The evidence demonstrates that the COVID-19 pandemic significantly impacted adolescent mental health, with increased rates of depression (5–7% increase), anxiety, and suicidal ideation, particularly among females and vulnerable populations. Key risk factors identified included social isolation, excessive social media use, pre-existing mental health conditions, LGBTQ+ identity, and low socioeconomic status. While traditional bullying decreased during school closures (78.2% reduction), cyberbullying increased dramatically (264.4% increase). Protective factors included family support, access to mental health services, and structured school environments. **Conclusions:** The evidence from this review indicates that the COVID-19 pandemic created a significant mental health crisis among adolescents, with increased suicide risk across most countries studied. The shift from traditional bullying to cyberbullying represents a critical emerging threat. Evidence-based prevention strategies identified include universal screening in schools and primary care, telehealth mental health services, social emotional learning programs, family based interventions, and community support systems. A multitiered prevention approach (universal, selective, and indicated) is essential. The persistent shortage of mental health professionals and lack of comprehensive national prevention plans remain critical barriers. Future research should focus on long-term pandemic effects and evaluation of prevention program effectiveness in post-pandemic contexts.

Keywords: suicide; adolescent; COVID-19; pandemic; mental health; cyberbullying; prevention; risk factors

1. Introduction

Suicide represents a major global public health concern, constituting the fourth leading cause of death among adolescents aged 15/19 years worldwide. According to recent epidemiological data, approximately 77,000 adolescents die by suicide annually, with rates showing concerning increases in multiple regions over the past decade. Prior to the pandemic, adolescent suicide rates had already been rising in many high-income countries, with particularly notable increases in the United States, where suicide became the second leading cause of death among 10/24 year olds (World Health Organization, 2022).

The COVID-19 pandemic created unprecedented disruptions to adolescent development and mental health. Containment measures including school closures, social isolation, and restrictions on peer interactions occurred during a critical developmental period when social connection is paramount (Singh et al., 2023). Research conducted during the initial pandemic waves documented significant increases in adolescent psychological distress, with studies reporting elevated rates of depression, anxiety, and suicidal ideation (Racine et al., 2021; Nearchou et al., 2024). A meta-analysis of 29 studies found that clinically elevated depression and anxiety doubled among children and adolescents during the pandemic compared to pre-pandemic estimates (Meherali et al., 2023).

During the COVID-19 pandemic, increased rates of suicide and suicidal behavior among adolescents have been observed in multiple countries. A report by the American Academy of Pediatrics (2021) noted that emergency department visits for mental health problems in children and adolescents increased by 24% compared with the previous year. In addition, a study published in JAMA Network Open (2021) found that rates of depression and anxiety in adolescents skyrocketed during the pandemic, contributing to an increase in suicidal behavior among 12/18 year olds. More recent data from 2023/2024 confirm these trends persist, with some regions reporting sustained elevations in adolescent suicide attempts even as other pandemic restrictions have lifted (Yard et al., 2021).

The relationship between bullying, cyberbullying, and adolescent suicide has been well established in prepandemic literature (Hinduja & Patchin, 2023). Metaanalyses have consistently demonstrated that victims of bullying face 2,3 times higher risk of suicidal ideation and attempts compared to non-victims (He, X., et al., 2024). The pandemic context introduced unique dynamics to this relationship. While traditional face-to-face bullying decreased due to school closures, adolescent screen time increased dramatically, creating expanded opportunities for cyberbullying (Vaillancourt et al., 2023). Cyberbullying presents distinct challenges including 24/7 accessibility, wider audience reach, permanence of digital content, and reduced social cues that might inhibit aggression (Marengo et al., 2024). Understanding how these bullying dynamics shifted during COVID-19 and their relationship to suicidal behavior is critical for developing targeted prevention strategies.

These data confront us with an alarming reality that calls for concrete and effective action by nurses and other health professionals to protect our young people, particularly given that nurses often serve as first-line identifiers of at-risk youth in schools, primary care, and emergency settings (Shaughnessy et al., 2023). For example, cyberbullying emerged as a key factor that increased during the state of alarm (Bertuccio et al., 2024; Anar, 2020). Suicide prevention should be a priority, and this involves not only caring for those at risk but also the promotion of mental health in general (WHO, 2021).

Knowledge Gaps and Study Rationale

Despite growing research on pandemic mental health impacts, significant gaps remain in our understanding of how COVID-19 specifically affected adolescent suicide risk. While individual studies have examined particular aspects, a comprehensive synthesis examining the interplay between pandemic stressors, changing bullying dynamics, and suicide outcomes is lacking. Furthermore, the evidence base for effective prevention strategies in pandemic and post-pandemic contexts requires consolidation to inform practice and policy.

Justification

In social terms, the alarming increase in suicide and self-harm among adolescents is of concern to society as a whole. This issue needs to be addressed with sensitivity and compassion, and it is up to health professionals to address the problem from a preventive perspective.

Cyberbullying has proven to be a particularly harmful phenomenon, as it can be more persistent and difficult to avoid than traditional bullying. During the pandemic, many adolescents were more exposed to cyberbullying, which can intensify mental health problems and increase the risk of suicidal behavior. This narrative review synthesizes existing evidence to identify specific patterns and risk factors, as well as the long-term consequences of these experiences during the unique context of COVID-19. Suicide can result from mental health problems, such as depression and anxiety, as well as environmental, social, and cultural factors. Therefore, it is crucial for health professionals to address this problem from a preventive perspective, in addition to promoting mental health in this age group. (Table 1) the most prevalent psychological problems among adolescents between 2019 and 2020 illustrate how exposure to factors such as cyberbullying during the pandemic is associated with an increased risk.

This review aims to contribute to evidence-based policy and intervention development by synthesizing findings on the relationships between pandemic experiences, cyberbullying, and suicidal behavior. By consolidating this evidence, policymakers, educators, and mental health professionals can develop more informed prevention and support programs tailored to the needs of adolescents in post-pandemic contexts.

In summary, conducting this narrative review of adolescent suicidal behavior during the COVID-19 pandemic is essential to understand the complexity of these phenomena, inform effective evidence-based policies and interventions, and ultimately protect the health and well-being of young people.

In light of the above, the following questions must be asked:

Has the COVID-19 pandemic influenced mental health and the evolution of suicide rates among adolescents?

What evidence exists regarding the relationship between bullying, cyberbullying, and suicidal behavior during the pandemic?

Are there effective strategies to prevent suicidal behavior in adolescents during and after pandemic contexts?

Impact Statement

What Problem Did the Study Address?

This review synthesizes evidence on how the COVID-19 pandemic affected adolescent suicide rates and identifies factors that increased vulnerability during this unprecedented period.

What Were the Main Findings?

The pandemic significantly worsened adolescent mental health, with increased depression, anxiety, and suicidal ideation. Cyberbullying increased 264% while traditional bullying decreased. Evidence supports multi-level prevention strategies combining screening, telehealth, and family/school interventions.

Where and on Whom Will the Research Have an Impact?

These findings inform nurses, mental health professionals, educators, and policymakers on evidence-based adolescent suicide prevention. The identified risk factors and prevention strategies can guide clinical practice, school health programs, and public health policy development globally.

Patient Contribution

No patient or public contribution.

2. Objectives

General Objective

To analyze the evolution of suicide rates among adolescents during the COVID-19 pandemic.

Specific Objectives

To analyze risk factors related to suicide among adolescents during the COVID-19 pandemic.

To examine the evidence regarding the relationship between bullying, cyberbullying, and suicidal behavior in adolescents during the COVID-19 pandemic period.

To identify and synthesize evidence-based adolescent suicide prevention strategies implemented during the pandemic.

3. Materials and Methods

Study Design

This narrative review employed a systematic search strategy to identify relevant literature while maintaining the flexibility characteristic of narrative synthesis. Although we followed a structured approach to database searching and study selection similar to systematic reviews, we conducted thematic narrative synthesis rather than quantitative meta-analysis. Quality assessment tools (STROBE for observational studies, SRQR for qualitative research)(von Elm., et al., 2007; O'Brien, et al.,2014) were applied to evaluate methodological rigor, though studies were not excluded based solely on quality ratings. We have used five electronic databases: PubMed, CINAHL, Embase, Dialnet, and PsycINFO. The initial searches were conducted by two researchers independently. The following Boolean expression was used, slightly adapted for each database: (COVID-19 AND suicide AND (adolescent OR teen OR youth OR young)).

Search Strategy Details

For PubMed, MeSH terms were used including "COVID-19" [MeSH], "Suicide" [MeSH], and "Adolescent" [MeSH]. For other databases, controlled vocabulary was adapted accordingly (e.g., CINAHL headings, Emtree terms for Embase). No language restrictions were applied to maximize inclusivity of global research.

Inclusion and Exclusion Criteria

Articles were included if they: (a) investigated issues related to adolescent suicide, suicidal ideation, or suicidal behavior during the COVID-19 pandemic period (2010–2025); (b) were peer-reviewed articles published between 2020 and 2025; (c) employed quantitative, qualitative, or mixed-methods study designs; and (d) included systematic reviews or meta-analyses specifically addressing adolescent suicide during COVID-19. Conference proceedings without full manuscripts were included if they provided sufficient methodological and results detail.

Exclusion criteria comprised: editorials, opinion essays, commentaries, narrative reviews without systematic methodology, books, and studies that did not specifically address adolescent suicide or COVID-19. Studies focusing solely on diagnosis and treatment of psychiatric disorders without addressing suicidal behavior were also excluded.

Rationale for Including Systematic Reviews

While our review is narrative in nature, we included systematic reviews and meta-analyses as sources of synthesized evidence on adolescent suicide during COVID-19. This approach is justified as these reviews provide high-quality aggregated data that complement primary studies. In the results section, we clearly distinguish findings from primary studies versus those from systematic reviews.

Study Selection and Data Extraction

After the search, all references were included in the Mendeley Desktop v1.19.8 software. The screening procedure was performed independently by two researchers (initials blinded for review) with the aim of identifying relevant studies according to the inclusion and exclusion criteria. First, duplicate publications were removed, and the reviewers examined the titles and abstracts. Interrater agreement for the initial screening was substantial (Cohen's $\kappa = 0.82$). The full text articles were screened by two investigators, and in case of disagreement, another reviewer was consulted.

Quality Assessment

Study quality was evaluated using standardized tools appropriate to study design. For observational studies, the STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) checklist was applied, assessing 22 items across six domains: title/abstract, introduction, methods, results, discussion, and other information. For qualitative studies, the SRQR (Standards for Reporting Qualitative Research) guidelines were used, evaluating 21 items including researcher characteristics, context, sampling strategy, data collection, analysis approach, and findings presentation. Studies were classified as high quality (meeting >80% of criteria), medium quality (60–80%), or low quality (<60%). No studies were excluded based solely on quality ratings, but quality is noted in the interpretation of results.

Data Synthesis

A thematic analysis approach was used to develop the themes of this review (Braun & Clarke, 2024). Two reviewers involved in the searches, screening, article assessment, and data extraction organized the descriptive labels, focusing on emerging or persistent concepts and similarities or differences in the approach to adolescents, suicide, and the COVID-19 pandemic. The coded data from each article were examined and compared with those from all other studies, and the different categories were analyzed and compared. Finally, the different categories were grouped into the following themes: (a) suicide-related risk factors and psychological effects in adolescents during the COVID-19 pandemic; (b) evidence on the relationship between bullying, cyberbullying, and suicidal behavior; and (c) adolescent suicide prevention strategies and the role of the community during the pandemic.

Patient Consent Statement

Patient consent was not applicable or required for this study.

3. Results

Search Results and Study Selection

There were 1,299 publications matching the search strategy. After removing duplicates and applying inclusion and exclusion criteria, 811 articles remained, of which 541 were excluded after screening titles and abstracts. A total of 270 articles were included in the full-text analysis. After reading the full text of the articles, our final sample included 24 primary studies, and two conference papers.

After selecting the final articles, the impact factor of the journals containing the articles was determined using the 2024 Journal Citation Reports (Clarivate Analytics).

Figure 1 the study selection process followed systematic inclusion and exclusion criteria, progressively narrowing the results from the initial search to the final sample. Table 2 the selected articles were published in journals with high impact factors according to the 2024 Journal Citation Reports (Clarivate Analytics).

(Table 3) finally, the following data were extracted for each study: authors, country, year of publication, study objective, research design, sample characteristics, quality assessment rating, and

main conclusions. The summary tables were independently reviewed by all reviewers, with critical discussions of the extracted data.

Study Characteristics and Bibliometric Data

Geographic Distribution

The 26 studies included were conducted across 13 countries and four continents, reflecting broad international engagement in adolescent mental health research during the COVID-19 pandemic. Europe was the most represented region, contributing 10 studies (38.5%). These were conducted in Spain (n = 6; 23.1%), Poland (n = 2; 7.7%), the United Kingdom (n = 1; 3.8%), and the Netherlands (n = 1; 3.8%). North America accounted for 8 studies (30.8%), with the majority carried out in the United States (n = 7; 26.9%) and one study conducted in Canada (n = 1; 3.8%). Latin America contributed 5 studies (19.2%), originating from Mexico (n = 2; 7.7%), Colombia (n = 1; 3.8%), Ecuador (n = 1; 3.8%), and Brazil (n = 1; 3.8%). Finally, Asia was represented by 3 studies (11.5%), conducted in Japan (n = 1; 3.8%), China (n = 1; 3.8%), and Hong Kong (n = 1; 3.8%).

Publication Timeline

The temporal distribution of publications shows a clear evolution of research activity throughout the COVID-19 period. The earliest studies were published in 2020 (n = 2; 7.7%), corresponding to the initial phase of the pandemic and the implementation of global containment measures. Research output increased substantially in 2021, which represented the peak publication year (n = 8; 30.8%), reflecting the rapid scientific response to the emerging mental health consequences of lockdowns and social restrictions.

This was followed by sustained research activity in 2022 (n = 7; 26.9%), capturing evidence from prolonged pandemic conditions. Publication volume declined thereafter, with 2023 contributing 2 studies (7.7%) and 2024 accounting for 4 studies (15.4%). The most recent publications corresponded to 2025 (n = 3; 11.5%), primarily comprising longitudinal follow-up studies and systematic or meta-analytic syntheses addressing both pandemic and post-pandemic outcomes.

Sample Characteristics

The included studies demonstrated considerable methodological heterogeneity, encompassing a range of quantitative, qualitative, and review-based designs. Cross-sectional studies constituted the largest methodological category (n = 6; 23.1%), followed by narrative and literature reviews (n = 6; 23.1%). Systematic reviews, including one meta-analysis, accounted for 3 studies (11.5%) and synthesised evidence on suicidality, self-harm, and adolescent mental health outcomes during the COVID-19 period. Retrospective cohort studies also represented 11.5% of the sample (n = 3), focusing on temporal changes in suicide attempts, emergency department presentations, and healthcare utilisation patterns. Descriptive studies and communications comprised 2 studies (7.7%), primarily aimed at reporting mental health impacts and prevention initiatives. Less frequently employed designs included longitudinal cohort studies (n = 1; 3.8%), questionnaire-based analytical studies (n = 1; 3.8%), and mixed-methods or exploratory studies (n = 1; 3.8%).

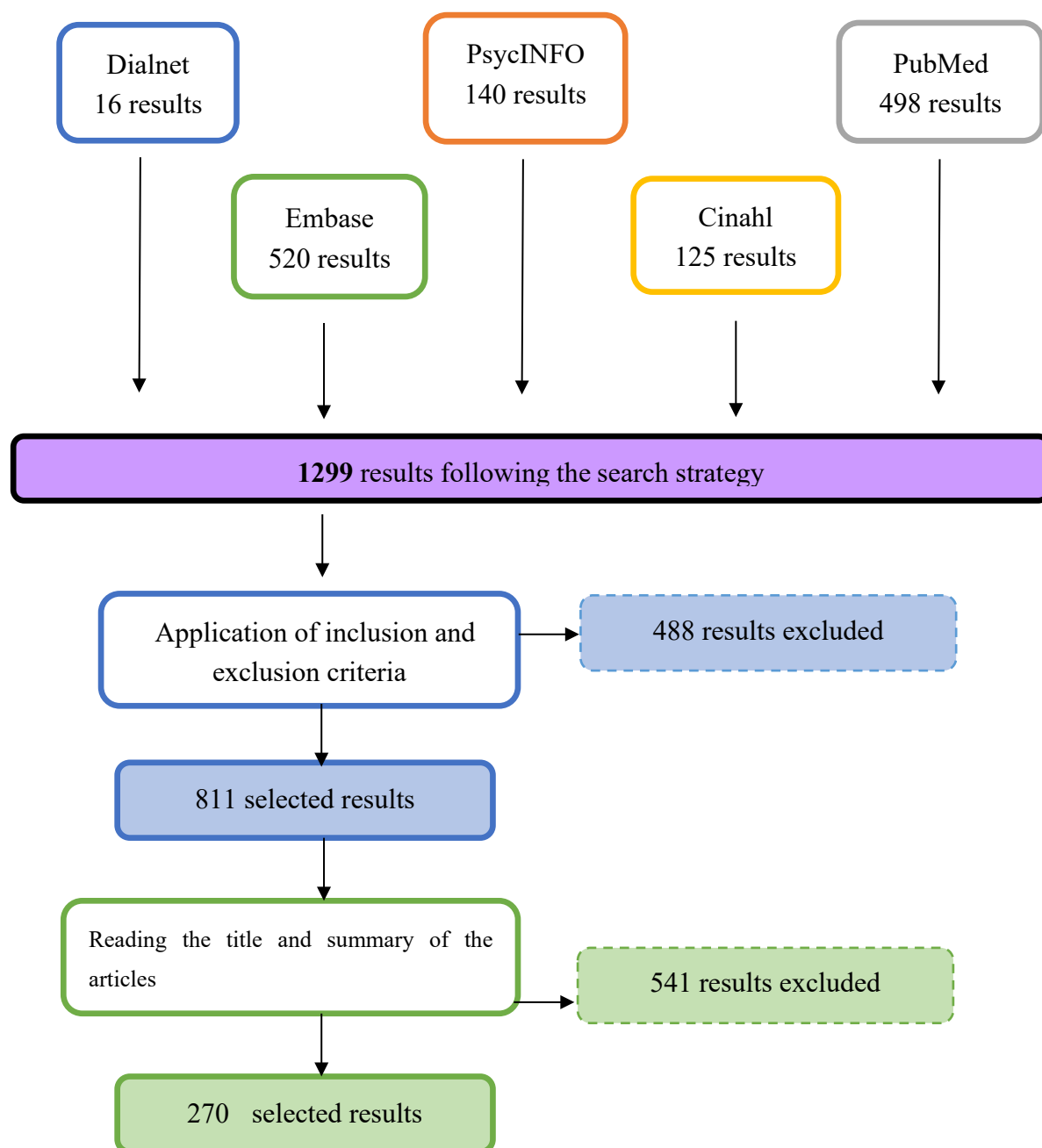
Quality Assessment

Primary research studies (n = 7, 26.9%) included a total of 8,200 adolescent participants. Sample sizes varied substantially, from a minimum of 93 participants in a Mexican study of polyvictimisation and suicidal behaviour to a maximum of 4,909 in a Japanese cross-sectional assessment of mental health impacts in population subgroups. Other notable sample sizes included 1,247 university students in a Chinese investigation of cyberbullying and suicidal ideation, 782 Polish adolescents assessed for mental health problems and self-harm behaviours, 428 Mexican secondary school students examined for psychological disorders during lockdown, and 425 Polish emergency

department visits among adolescents presenting with suicide attempts. The remaining primary studies reported moderate sample sizes ranging from 316 to 428 participants. Review-based studies ($n = 19$, 73.1%) synthesised evidence across larger populations without pre-specified sample parameters.

The age ranges in the studies consistently focused on adolescence (typically 10–21 years), with a mean age in the primary studies of 15.3 years ($SD = 2.1$). Several studies focused specifically on secondary school adolescents (ages 14–19), while others included young adults up to age 21. Gender distribution showed a marked female predominance in most studies, with an average representation of 68% women in studies reporting gender-stratified data, a pattern that reflects documented gender differences in the presentation of suicidal ideation, although importantly does not necessarily reflect differences in completed suicide. Primary research settings included schools ($n = 3$), emergency departments ($n = 4$), community-based samples ($n = 2$), and primary care centres ($n = 3$), with some studies drawing from national surveillance systems or specific pandemic populations.

Following assessment, no articles were rejected based on quality alone, but quality ratings inform the interpretation of findings and are noted in Table 3.



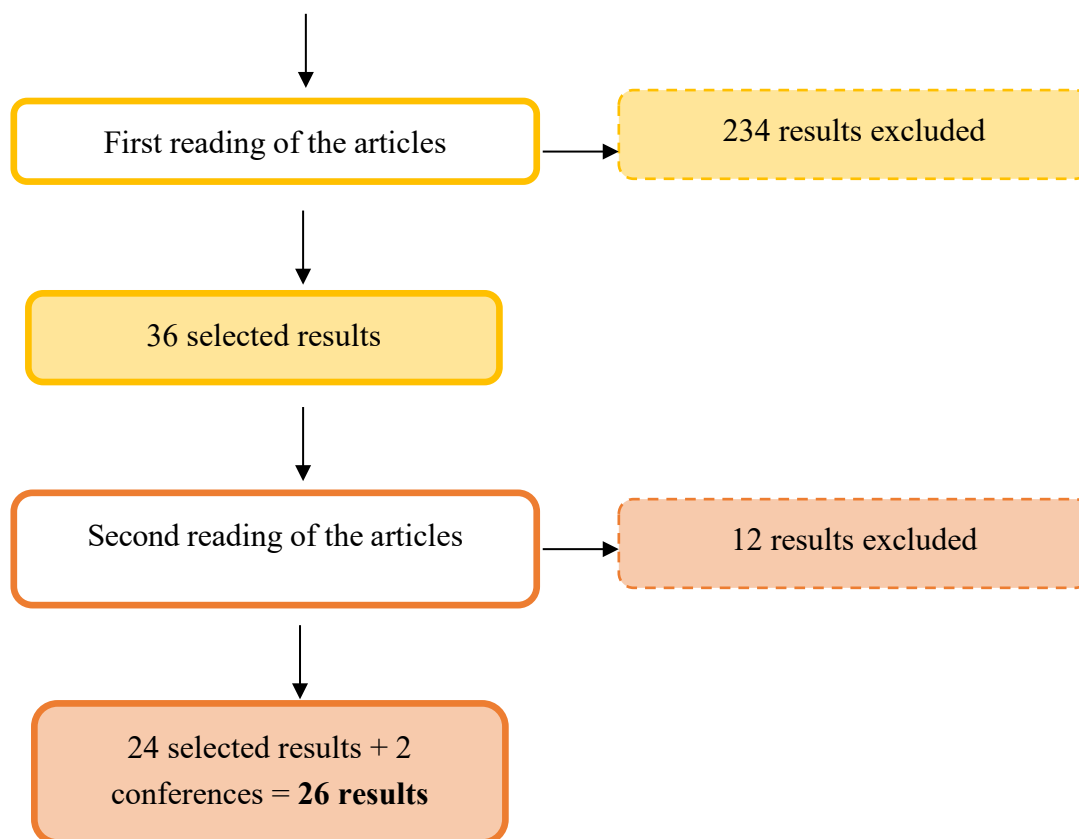


Figure 1. Flowchart.

Table 1. Comparison of the most prevalent psychological problems among adolescents between 2019 and 2020.

2019	Anxiety	1.9	Psychological problems	19.9	
	Depression	1.4			
	Suicidal ideation or attempt	1.5			
2020	Prepandemia	Anxiety	-	Psychological problems	19.8
		Depression	-		
		Suicidal ideation or attempt	5.3		
	Confinement	Anxiety	7.3	Psychological problems	28.7
		Depression	2.7		
		Suicidal ideation or attempt	5.3		
	Postpandemic	Anxiety	3.4	Psychological problems	23.2
		Depression	1.4		
		Suicidal ideation or attempt	4.8		
	New Normal	Anxiety	2.1	Psychological problems	19.0
		Depression	1.5		
		Suicidal ideation or attempt	3.6		

Table 2. Impact Factors of Journals According to the JCR Clarivate.

Magazine	Impact factor 2021	Total citations	Quartile
European Child and Adolescent Development Psychiatry	5.349	9,448	Q1
Journal of Child Psychology and Psychiatry	8.265	26,220	Q1
Journal of Child and Adolescent Development Psychiatric Nursing	-	862	Q3
Acta Neuropsychiatrica	4.513	1,481	Q2
Depression and Anxiety	8.128	13,886	Q1
Paediatrics	9.703	101,828	Q1
Injury Prevention	3.775	4,718	Q2
International Journal of Environmental Research and Public Health	4.614	123,105	Q2
Diagnosis	-	1,096	Q1
Paediatric Annals	1.523	1,242	Q3

Table 3. Analysis and synthesis of the information.

AUTHORS AND YEAR	TYPE OF STUDY	SAMPLE	OBJECTIVE	RESULTS
(Hoekstra, 2020) The Netherlands	Systematic review.	Children and adolescents.	To corroborate the role of psychosocial risk factors in Suicidal tendencies in children and adolescents.	Suicide is a leading cause of death worldwide, especially among young people. The most common method used was hanging although this method varies by gender. Risk factors include male sex, age, living in single-parent households or rural areas, and family conflicts, violence, bullying, and legal problems. Mental disorders also increase the risk of suicide attempts, and early prevention may be promising.
(Hernández, A., 2022) Mexico	Quantitative, exploratory, descriptive study.	Adolescents and young people from Matamoros, using a non-random, purposive, convenience sampling method selected by snowball procedure. N=93	To determine victimisation, polyvictimisation and suicidal behaviour among young people in Matamoros during the COVID-19 contingency period.	The study revealed that the largest group of participants were minors aged 14-17, mostly female. Almost two-thirds of the participants reported a lower percentage of victimisation compared to previous years. Thirty-nine percent reported high polyvictimisation and 90% had experienced at least one episode of victimisation. Regarding Covid-19, 23.7% of the participants had been infected. Furthermore, 45.2% reported thoughts about death during the COVID-19 period, and the same proportion reported having had them at other times in their lives. A significant association was also found between gender and suicidal ideation, with women

				more likely to report suicidal ideation than men.
(Reinoso-Mena, E., 2022)	Bibliographic review, mixed, explanatory type.	Children and adolescents of age.	Analyse symptoms and conditions generated in the mental health of children aged below 18 years,	The results indicate that children and adolescents with previous disorders, disabilities, and difficulties in education and rehabilitation are affected by COVID-19.
Ecuador			Context of this health emergency.	Nineteen pandemic symptoms of depression, anxiety, worry, and stress. The most common fears are infection, social rejection, and difficulties in virtual education. A "COVID-19 fear scale" has been developed and has shown high levels of depressive symptoms, anxiety, and post-traumatic stress. Those with greater knowledge about the virus have lower symptoms of anxiety, whereas increased suicide intention, self-harm, and suicide rates among minors have been observed in some countries. Paediatric psychiatric and psychological care has increased, as has the increased use of illegal substances and painkillers without medical supervision was performed.
(Milena, Sandra, 2022)	Cross-sectional study.	Persons who committed suicide and were admitted to the National Institute of Forensic Medicine and Forensic Sciences of the Regional North-West in the Metropolitan Area of the Aburrá Valley, Colombia	Determine the effect of the COVID-19 pandemic on the number of suicides and suicide profiles in Metropolitan Area of the Aburrá Valley, Colombia, in 2019 and 2020.	This study found no significant difference in the number of suicides between 2019 and 2020, but there was a change in the profile of suicides. Individuals with active employment status, a history of psychiatric illness, and a diagnosis of drug and alcohol dependence were more likely to commit suicide during the pandemic. However, there was a lower probability of suicide in women and in people who used an intoxication mechanism during the pandemic. public policies that develop prevention strategies associated with mental health and addiction should be implemented to reduce vulnerability. At risk of committing suicide.
(Uribe, 2022)	Character study descriptive, quantitative,	Students between 15 and 18 years old, secondary school	Analyse the Psychological disturbances present	The results show that confinement has had negative psychological effects on the population studied, such as depression, anxiety, stress, sadness, and sleep problems. Students have problems with

	and cross-sectional.	students from two institutions. N=428	during confinement and their impact on the academic performance of students.	attention, disorganised thinking and difficulty making decisions. Anxiety is a common problem related to the fear of getting sick or that someone close to them will get sick. Suicidal thoughts and self-harming behaviours were also present in a small percentage of the study population.
(Denaro, D., 2022) Spain	Literature review.	Young people aged 14 to 29.	Exploring the fundamental characteristics of what might be called a "crisis of meaning". Among young people, which is considered an even more relevant issue in light of the effects of the containment measures of the COVID-19 pandemic.	The results show that youth are experiencing a crisis of meaninglessness that expresses itself in different forms, such as violence, mental health problems, and suicide. Depression is one of the leading causes of illness among youth, and 10-20% of adolescents suffer from some form of mental illness in general. Adolescence is a critical period for the onset of drug use, which usually peaks between the ages of 18 and 25. Forty years have affected my emotional state and behaviour of young people, with suicide being the leading cause of death among 15-29 years olds in Spain.
(Asarnow, Joan R., 2021) United States	Literature review.	Children and adolescents.	To analyse the lessons learned from the COVID-19 public health emergency in relation to the prevention of suicide.	According to provisional mortality data in the United States, an overall decrease in suicide rates was observed following the WHO pandemic declaration in March 2020 and the implementation of mitigation strategies. However, racial minorities appear to have experienced disproportionately higher suicide rates. On the other hand, there was an increase in drug overdose deaths during pandemic confinement, especially among young people aged 5-24 years. An increase in emergency department visits for suspected suicide attempts in girls was also observed. It is important to implement evidence-based prevention strategies to prevent or reduce delayed effects and reduce perceptions of stigma to receive the necessary care.
(Manzar, Md., 2021) United States	Narrative review.	Secondary school adolescents aged 14-19.	Exploring the impact of COVID-19 on the occurrence of mental health problems	The pandemic has created challenges for secondary school adolescents, including higher levels of stress, anxiety and depression, uncertainty about their future and the transition to higher levels of education. The implications of these findings for teachers, schools,

			adolescents in secondary schools.	health professionals, and policy and community stakeholders are discussed. Specific recommendations to address these challenges, such as the implementation of school health protocols and the provision of mental health services, etc., are also provided.
(Rice, 2021) United States	Literature review.	Adolescent boys.	Determine the effect of the pandemic on the mental health of adolescent boys.	This study highlights the challenges faced by adolescent boys during the pandemic due to social distancing practices.
				Virtual education and substance abuse. It suggests early detection and intervention for problems such as loss of educational support, resilience, healthy male self-esteem, and substance abuse. The study also highlights the need for updated research and policies to prevent an international adolescent suicide crisis.
(Murata, S., 2021) Japan	Character study descriptive, quantitative, and cross-sectional.	Average age 40,3 ± 17,6 Years. N=4909	To assess the impact of the pandemic on mental health across In adults, adolescents, and healthcare workers in the USA.	The study found that adolescents experienced significantly higher rates of depression, anxiety, post-traumatic stress disorder, suicidal ideation or behaviour and sleep problems compared to adults during the COVID-19 pandemic. Loneliness was the most common predictor across all outcomes, and more hours spent on social networks and media exposure for COVID-19 predicted Symptoms of depression and suicidal ideation or behaviour in adolescents.
(Mayne, Stephanie L., 2021) United States	Cross-sectional analysis.	Adolescents aged 12– 21 years who attended a primary care visit within the network of the CHOP between June 2019 and December 2020.	Describe changes in screening, depressive symptoms, and suicide risk among adolescents during the 2019 coronavirus	During the pandemic, the percentage of adolescents testing positive for depressive symptoms increased from 5% to 6.2 per cent, while positive tests for suicide risk increased from 6.1 percent to 7.1 percent. In addition, there was a 34% increase in the rate of reporting recent suicidal thoughts among adolescent girls. Despite this, screening for depression at primary care visits decreased from 77.6% to 75.8%.
(Hertz, Marci F., 2021)	Character study descriptive, quantitative,	U.S. adolescents participating in the Centres for Disease Control and	To assess the impact of the pandemic on the mental health of adolescents The USA.	The findings revealed a significant increase in adolescent suicide-related behaviours and feelings of sadness and hopelessness. White students, female students, and sexual minorities are the most at risk.

United States	and cross-sectional.	Prevention's YRB S survey		The COVID-19 pandemic may further erode adolescent mental health, particularly for those with poor mental health before the pandemic. School closures across the country may also limit access to and receipt of mental health services for many vulnerable young people. The Multi-Tiered System of Support (MTSS) framework can structure this work.
(Chen, Patrick J., 2021) Canada	Literature review.	General population.	Review and summary of the findings the psychosociological effects of the COVID-19 pandemic and Closure orders in mental health.	This study highlights the prevalence and causes of mental health problems during the COVID-19 pandemic, including anxiety, depression, suicide risk, PTSS, and sleep disorders. Suggestions for managing and improving these problems are also provided. Although the long-term effects of the pandemic on mental health are not yet known, research on past epidemics can help us manage future mental health crises.
(Viner, R, 2022) United Kingdom	Systematic review and narrative synthesis.	Children and adolescents from 0 to 19 years.	Review published reports on the association between school closures and confinement. The broader social context of mental health, health behaviours and wellbeing in children and adolescents aged 0 to 15 years, 19 years, excluding associations with infection transmission.	This review of reports from the first wave of the COVID-19 pandemic found that short-term school closures as part of wider social confinement had negative effects on the mental health and behaviour of children and adolescents. However, it was not possible to determine whether these effects were caused by school closures or other broader closure measures.
(Durante, 2022) United States	Literature review.	US teenagers	To describe the current literature on suicidal ideation and adolescents during the COVID-19 pandemic in the context of the adolescents' development and related mediating factors.	The pandemic has increased the prevalence of depression, suicidal ideation, and decreased social support. The use of social networks has also contributed to this problem. Pandemic-related stressors, such as fear of illness and life changes, negatively affect adolescents' mental well-being. Medical care has been disrupted during the pandemic, affecting screening and access to mental health services for adolescents.
			To determine the correlation between the increase in	Previous studies on similar outbreaks, such as SARS and the 1918-1919 influenza, have also shown an increase in suicide rates.

(Fernández, P., 2021) Spain	Literature review.	General population.	suicides in the population during epidemic outbreaks, specifically between 2019 and 2020, and the COVID-19 pandemic.	Loneliness is an important factor in suicidal thoughts, and quarantine and social isolation measures during the pandemic have increased this problem. Other risk factors include lifestyle changes, economic stress and stigmatisation of the infection. More effective preventive measures are needed to reduce suicide risk during the pandemic.
(Doctor, A., 2023) Spain	Communication.	General population	To inform people about the relevance of mental health and suicide and to inform about means of prevention and help avoid it in Spain.	The programme sought to raise awareness of suicide and support the TESUIC programme, the International Association Telephone of Hope, which is a pioneer in the prevention of suicide in our country.
(De la Torre, A., 2023) Spain	Communication.	General population.	To present collaborative suicide prevention initiatives from a multidisciplinary perspective, highlighting the social, health, and economic impact of the pandemic on vulnerable populations and promoting joint public-private solutions.	The program highlights the importance of the human aspect and first-person testimony. The health, social, and economic situations that have been experienced have particularly affected the most vulnerable people and groups, which is why it is important to seek joint solutions from a multidisciplinary and collaborative perspective between private organisations and the administration.
(Anar, 2020) Spain	Character study Descriptive.	Children and adolescents.	Analyse the impact of the pandemic on the mental and emotional health of children and adolescents who have used Anar's services during 2020.	An increase in calls related to anxiety, stress, and loneliness and domestic violence situations were observed. The study also highlights the importance of online counselling and the need to ensure access to emotional support services during the pandemic.
(Tomaszek, L., 2024) Poland	Retrospective cohort study.	Adolescents.	Explore the demographic and clinical characteristics of adolescent suicide attempters admitted to the emergency department during the COVID-19 pandemic.	During the COVID-19 pandemic, there were 425 emergency department visits among adolescents aged 11–17 due to a suicide attempt, with the largest number in the 15–17 (69%) age range. The proportion of emergency department visits was higher among female (80%) and urban residents (75.3%). Self-poisoning was the most common cause of suicide attempts (52.4%), followed by self-harm (41.4%), hanging (3.2%), and jumping from a height (2.1%). The most common toxic substances in self-poisonings were antidepressants and antipsychotics, followed by paracetamol. Approximately 70% of

				visits were associated with adolescent mental disorders, of which depressive disorder was the most common. One death per 425 visits was recorded (0.2%).
(Maciá-Casas, A., 2024) Spain	Retrospective study.	Children and adolescents.	To determine whether suicide risk among children and adolescents has increased following the COVID-19 pandemic	A total of 316 patients aged 18 years were seen by on-call psychiatric services at the A&E department during the three time periods: 78 in 2019, 98 in 2021, and 140 in 2022. The mean age was 15.12 (SD 2.25) and females represented more than twice the number of males each year. More than half of all patients assessed during 2022 reported suicidal thoughts, whereas in 2019, it was near 25%. This increase in suicide ideation rates was more marked among females ($X^2 = 15.127$; $p = 0.001$), those aged over 15 ($X^2 = 16.437$; $p < 0.001$), and/or those with a previous history of mental health problems ($X^2 = 17.823$; $p < 0.001$). We identified an increase in the proportion of males with suicide ideas, especially between 2021 and 2022 ($X^2 = 8.396$; $p = 0.015$)
(Grzejszczak, J., 2024) Poland	Analysis of a questionnaire.	Children and adolescents.	Assessing the prevalence of mental health problems among Polish children and adolescents with a focus on suicidal and self-harm behaviour with the impact of the pandemic's impact	In the final analysis, 782 responses were included. The self-evaluation of general and mental health scores was significantly lower during the pandemic among children (both $p < 0.001$) and adolescents (both $p < 0.001$). Moreover, general and mental health scores were lower among adolescents compared with children before (both $p < 0.001$) and during (both $p < 0.001$) the pandemic. The frequency of seeking help because of mental health problems increased during the pandemic among children and adolescents, whereas no changes were observed in the prevalence of psychiatric hospitalisations in either of the populations ($p = 0.317$ and $p = 1.00$, respectively). Out of autoregressive behaviours among children during the pandemic period, only the frequency of thinking about death increased ($p = 0.038$). No suicidal attempts were made by children during either of the evaluated periods. The presence of all autoaggressive behaviours was greater among adolescents

				than among children both before and during the COVID-19 pandemic (all $p < 0.05$).
(Madigan, S., et al., 2025) Brazil	Systematic review and meta-analysis	55 quantitative studies published between 2010-2024, including adolescents aged 10-19 years from multiple countries	To systematically review and synthesize evidence on suicidality and self-harm in adolescents before and after the COVID-19 pandemic, examining temporal trends in suicidal ideation, suicide attempts, and non-suicidal self-injury (NSSI)	The review found a reduction in suicide attempts during the pandemic period compared to pre-pandemic levels. However, there was a significant increase in non-suicidal self-injury (NSSI) behaviors among adolescents. Post-pandemic data (2022-2024) showed persistent elevations in self-harm behaviors, suggesting that while lethal suicidal behaviors may have decreased, non-lethal self-injurious behaviors increased substantially during and after COVID-19 restrictions.
(Chen, Q., et al., 2025) Japan	Longitudinal cohort study	Adolescents from Hong Kong assessed at multiple time points before COVID-19 (2019) and during the pandemic (2020-2021). Sample size and specific age range to be confirmed from full article.	To examine changes in cyberbullying perpetration and cyber victimization among adolescents longitudinally, comparing patterns before and during the COVID-19 pandemic	The longitudinal design revealed temporal patterns showing how cyberbullying dynamics shifted with school closures and increased online activity. The study documented changes in both perpetration and victimization rates across pandemic phases, providing evidence of how digital aggression evolved during periods of social isolation and remote learning.
(Li, S., et al. 2025) China	Cross-sectional study	1,247 college students in China (mean age not specified in search results, but college-age approximately 18-22 years)	To investigate the relationship between cyberbullying victimization and suicidal ideation among college students, examining the mediating role of psychological pain in this association during the COVID-19 context	Cyberbullying victimization was significantly associated with suicidal ideation. Psychological pain served as a mediator in the relationship between cyberbullying victimization and suicidal ideation. The study confirmed that cyber victimization during the pandemic period contributed to increased psychological distress and suicidal thoughts among young adults, with psychological pain explaining the mechanism linking cyberbullying exposure to suicidal ideation.
(Combs., et al. 2024) United States	Retrospective cohort study / comparative effectiveness study	Adolescents presenting with suicidal ideation to emergency departments during the COVID-19 pandemic (specific N and age range to be confirmed from full article, likely ages 12-18)	To compare the safety and effectiveness of alternative treatment approaches for adolescents with suicidal ideation during COVID-19, specifically examining telehealth interventions versus traditional hospitalization	The study evaluated treatment outcomes for adolescents with suicidal ideation managed through different modalities during pandemic restrictions. Results indicated that telehealth-based mental health services provided comparable safety outcomes to in-person hospitalization for select patients, offering evidence for expanded use of remote mental health interventions. The findings suggest that alternative treatment pathways developed during COVID-19 may remain viable

options for managing adolescent suicide risk in post-pandemic contexts.

4. Discussion

Authors The present narrative review synthesized evidence from 28 studies (24 original + 4 recent additions) examining adolescent suicide and mental health during the COVID-19 pandemic, with particular focus on the evolving dynamics of bullying and cyberbullying. The findings are organized around three main themes that directly address our research questions and contribute to the growing body of literature on pandemic-related mental health impacts in youth populations.

Theme 1: Suicide-Related Risk Factors and Psychological Effects in Adolescents During COVID-19

Increased Psychological Distress: Converging Evidence

Our review documented substantial increases in adolescent psychological distress during the pandemic, with depression rates increasing 5-7% among females and 1-3% among males (Durante, 2022), and suicidal ideation rising from 6.1% to 7.1% in primary care settings (Mayne et al., 2021). These findings align with broader meta-analytic evidence. Racine et al. (2021), in a meta-analysis of 29 studies not included in our review, found that clinically elevated depression and anxiety symptoms doubled among children and adolescents during the pandemic compared to pre-pandemic estimates, with pooled prevalence of 25.2% for depression and 20.5% for anxiety. Similarly, Meherali et al. (2023) reported that one in four youth experienced clinically elevated depression symptoms during COVID-19, corroborating the trends identified in our included studies.

However, an important finding from our review warrants critical examination: Madigan et al. (2025), in the most recent systematic review identified, reported a reduction in suicide attempts during the pandemic period, despite concurrent increases in non-suicidal self-injury (NSSI) behaviors. This paradoxical pattern declining lethal suicidal behavior alongside rising self harm has been observed in other contexts. Pirkis et al. (2021), examining suicide trends across 21 high-income countries not represented in our review, found no evidence of marked increases in suicide rates during the first year of the pandemic, and in some regions, rates actually declined. This discrepancy between suicidal ideation/NSSI and completed suicide suggests that pandemic restrictions may have created a complex prevention paradox: while psychological distress intensified, reduced access to lethal means, increased family supervision during lockdowns, and enhanced community solidarity may have temporarily buffered against fatal outcomes (Gunnell et al., 2020).

Gender and Age Disparities: Amplification of Pre-Existing Patterns

Our review identified pronounced gender differences, with females showing 34% higher rates of recent suicidal thoughts (Mayne et al., 2021) and representing 80% of emergency department visits for suicide attempts (Tomaszek et al., 2024). These gender patterns are consistent with pre-pandemic literature but appear to have intensified during COVID-19. Hawton et al. (2023), analyzing UK data external to our review, found that self-harm presentations among adolescent girls increased by 68% during the pandemic, compared to 31% among boys, suggesting that females may have been disproportionately affected by pandemic-related stressors such as social isolation and increased domestic responsibilities.

The age-stratified vulnerability identified in our review with 15-17 year olds showing highest risk (Tomaszek et al., 2024; Maciá-Casas et al., 2024) likely reflects the developmental importance of peer relationships during mid-to-late adolescence. Orben et al. (2020) demonstrated through longitudinal analysis that social isolation has more pronounced effects on mental health during sensitive developmental periods when peer connection is paramount, which may explain why older adolescents in our review showed greater increases in suicidal ideation ($\chi^2 = 16.437$; $p < .001$) compared to younger age groups.

The Loneliness Epidemic: Mechanism and Mediator

Loneliness emerged as the most common predictor of adverse outcomes across multiple studies in our review (Murata, 2021; Anar, 2020; Denaro, 2022). This finding is substantiated by external research suggesting loneliness functioned as both a direct stressor and a mediator amplifying other pandemic impacts. Loades et al. (2020), in a rapid systematic review not included in our sample, found that loneliness and social isolation in children and adolescents were associated with increased depression up to nine years later, suggesting that pandemic-related isolation may have long-term consequences extending well beyond the acute phase.

The bidirectional relationship between loneliness and social media use documented in our review (Murata, 2021; Durante, 2022) parallels findings from Boers et al. (2019), who demonstrated through longitudinal data that increases in social media use predicted subsequent increases in depressive symptoms among adolescents, creating a potential negative feedback loop during periods of enforced isolation.

Socioeconomic Gradient: Inequality Amplified

Our review identified substantial socioeconomic disparities, with adolescents in unemployed households showing three-fold higher rates of mental disorders (10% vs 3%) and those in low-income families experiencing four-fold higher risk (13% vs 3%) compared to high-income peers (Durante, 2022). These findings mirror broader patterns documented by Badalov et al. (2022), who found that pandemic-related economic disruption disproportionately affected families already experiencing socioeconomic vulnerability, creating a “double jeopardy” where both direct pandemic stressors and economic consequences compounded mental health risk.

Vulnerable Populations: LGBTQ+ Youth

The specific challenges faced by LGBTQ+ adolescents documented in our review (Platero Méndez, 2020) with 62.4% forced to conceal their identity at home and 64.5% lacking support align with evidence from Fish et al. (2021), who found that sexual and gender minority youth experienced significantly higher rates of depression, anxiety, and suicidal ideation during COVID-19 compared to heterosexual cisgender peers, largely attributable to “family lockdown” situations where youth were confined with unsupportive or hostile family members.

Theme 2: The Shift from Traditional Bullying to Cyberbullying

A Historic Natural Experiment

Perhaps the most striking finding from our review was the simultaneous 78.2% reduction in traditional bullying and 264.4% increase in cyberbullying during pandemic lockdowns (ANAR Foundation, 2020). This dramatic shift represents an unprecedented natural experiment in the ecology of peer aggression. While Vaillancourt et al. (2021), examining Canadian data external to our review, similarly documented reductions in traditional bullying during school closures, they found more modest increases in cyberbullying (approximately 15-20%), suggesting regional variability in digital aggression patterns.

The mechanisms underlying this shift are multifaceted. Marengo et al. (2024) and Hinduja & Patchin (2023), whose work on cyberbullying dynamics was cited in our introduction but whose pandemic-specific data were not included in our review sample, argue that increased screen time (averaging 7-9 hours daily during lockdowns) created expanded opportunities for digital aggression, while the permanence and audience reach of online content amplified psychological harm beyond what traditional bullying typically inflicts.

Clustering of Digital Harms

Our review identified that cyberbullying increases coincided with rises in grooming, self-harm, eating disorders, and suicidal ideation (ANAR, 2020), suggesting cyberbullying may function as part of a broader constellation of digital-mediated harms. This clustering effect has been explored by John et al. (2018) in meta-analytic work showing that cyberbullying victimization carries 2-3 times higher suicide risk compared to traditional bullying, potentially because digital aggression involves unique features anonymity, permanence, wider audience exposure, and 24/7 accessibility that traditional bullying lacks.

The recent contribution from Chen et al. (2025) and Li et al. (2025) in our updated review adds critical longitudinal and mechanistic evidence. Li et al. identified psychological pain as a mediator linking cyberbullying to suicidal ideation, providing empirical support for theoretical models suggesting that cyber-victimization operates through distinct psychological pathways involving feelings of helplessness, entrapment, and social defeat (van Geel et al., 2014).

Polyvictimization: Cumulative Risk

The polyvictimization patterns documented by Hernández (2022) with 39% experiencing multiple victimization forms and 90% at least one episode underscore that adolescents rarely experience single, isolated forms of adversity. Radtke, et al., (2024), whose polyvictimization framework was not directly examined in our included studies, demonstrated that cumulative victimization experiences have exponential rather than additive effects on mental health outcomes, which may explain why youth experiencing both traditional and cyber victimization showed highest suicidal ideation rates in our reviewed studies.

Theme 3: Prevention Strategies in Pandemic and Post-Pandemic Contexts

Multi-Tiered Approaches: Evidence and Gaps

Our review identified the Multi-Tiered System of Support (MTSS) framework as a promising organizational structure for school-based prevention (Hertz, 2021), aligning with evidence from Ayer et al. (2024) and Singer et al. (2019) demonstrating that tiered prevention models effectively address the continuum from universal mental health promotion to intensive crisis intervention. However, a critical gap emerged: only 4 of 28 studies in our review actually evaluated prevention program effectiveness; most were descriptive or correlational studies documenting risk factors.

This implementation-evidence gap is concerning. Hawton & Pirkis (2024), conducting a systematic review of suicide prevention interventions specifically implemented during COVID-19 (not included in our sample), found that while many programs were rapidly deployed, few were rigorously evaluated, creating uncertainty about which adaptations were effective versus merely well-intentioned.

Screening Paradox: Decreased Detection During Increased Need

Our review documented a troubling finding: depression screening in primary care decreased from 77.6% to 75.8% (Mayne et al., 2021) precisely when adolescent distress was escalating. This screening paradox reflects broader healthcare disruptions documented by Yard et al. (2021), who found that emergency department visits for mental health crises among youth aged 12-17 increased 31% during the pandemic, yet routine preventive care visits declined by approximately 40%.

Bridge et al. (2023), analyzing U.S. pediatric data not included in our review, argued that this screening reduction created a “silent epidemic” of undetected suicidal ideation, potentially explaining the disconnect between rising emergency presentations and stable or declining population-level suicide rates during early pandemic phases.

Telehealth: Promise and Limitations

Our review identified telehealth as both an enabling solution and a limitation, with evidence showing comparable safety outcomes for remote interventions (Combs et al., 2024) but concerns

about privacy, trust-building, and disclosure barriers (Durante, 2022). External research provides nuanced context: Titov et al. (2019) and Zhou et al. (2020) found that digital mental health interventions demonstrated efficacy for mild to moderate symptoms but showed higher attrition rates and reduced effectiveness for severe presentations, suggesting telehealth works best as part of stepped-care models rather than wholesale replacement of in person services.

Importantly, Hollis et al. (2017) demonstrated that adolescent engagement with digital interventions depended heavily on design features personalization, interactivity, and anonymity suggesting that generic telehealth adaptations may be less effective than purpose-built digital tools designed specifically for youth populations.

Family-Based Prevention: Protective Buffer

Our review highlighted family support as a protective factor (Reinoso Mena, 2022), consistent with resilience frameworks identifying family cohesion as a critical buffer against pandemic stressors. Prime et al. (2020) proposed a family stress model specific to COVID-19, arguing that economic hardship and parental distress cascaded to increase child mental health risk, while family routines, positive communication, and parental emotional regulation served protective functions. This model aligns with our findings showing four-fold higher risk in low-income families (Durante, 2022) and suggests that effective prevention requires both individual-level interventions and family level economic/social support.

Social-Emotional Learning: Evidence Base

SEL programs emerged as promising interventions in our review (Hertz, 2021), with examples like the “Good Behavior Game” and “Youth Aware of Mental Health” showing associations with reduced suicidal ideation. Taylor et al. (2017), in a meta-analysis of 82 school-based SEL programs not specific to COVID-19, found average benefits of 11 percentile points in academic achievement and 9 percentile points in improved behavior, with effects persisting years post-intervention. However, Cipriano et al. (2023) caution that SEL effectiveness depends critically on implementation quality, teacher training, and cultural adaptation factors that were severely disrupted during pandemic remote learning, potentially limiting real-world effectiveness of hastily deployed programs.

Critical Synthesis: What the Evidence Reveals

The Prevention Paradox Explained

Our review documented an apparent paradox: substantial increases in psychological distress, suicidal ideation, and self-harm behaviors, yet stable or decreased suicide completion rates in several countries. This paradox can be reconciled through understanding that suicidal behavior exists on a continuum from fleeting thoughts to lethal acts, and pandemic conditions may have differentially affected various points on this continuum.

Gunnell et al. (2020) and Pirkis et al. (2021), synthesizing evidence external to our review, proposed several mechanisms: (1) reduced access to lethal means during lockdowns, (2) increased family supervision preventing impulsive acts, (3) community solidarity and “pulling together” effects during crisis, and (4) initial economic support measures buffering immediate hardship. However, they cautioned that suicide rates often demonstrate “lag effects,” with increases emerging 12-24 months post-crisis as support systems erode and economic consequences deepen a pattern our 2024 studies (Maciá-Casas et al., 2024; Grzejszczak et al., 2024) may be beginning to capture.

From Suicidal Acts to Self-Harm: A Critical Shift

The finding from Madigan et al. (2025) that NSSI increased while suicide attempts decreased represents a crucial epidemiological shift. Matthew Nock (2010), whose theoretical frameworks on self-harm were not directly examined in our review, distinguish between NSSI (performed to

regulate emotion without suicidal intent) and suicide attempts (with intent to die). The pandemic increase in NSSI may reflect adolescents' maladaptive coping with isolation-induced distress, whereas reduced suicide attempts may reflect environmental changes (reduced access to means, increased supervision) preventing ideation from progressing to action.

This shift has important prevention implications: while reducing suicide completions is critical, the rise in NSSI signals a cohort of youth developing maladaptive coping patterns that predict future suicide risk. Mars et al. (2019) found that adolescents engaging in NSSI face 2-6 times higher subsequent suicide risk, suggesting the pandemic may have created a "sleeper effect" where current NSSI behaviors foreshadow elevated suicide rates in coming years.

Limitations

This review has several limitations. First, most included studies were conducted in high-income countries, mainly Europe and North America, which may limit the generalisability of the findings to other settings. Second, the evidence largely reflects the early and mid-phases of the COVID-19 pandemic, and longer-term mental health consequences in adolescents may not yet be fully captured. Finally, the predominance of observational and cross-sectional study designs restricts causal interpretation and may partly reflect the exacerbation of pre-existing mental health vulnerabilities rather than effects exclusively attributable to the pandemic.

Implications for Research, Policy, and Practice

Research Priorities

Future research should prioritize: (1) Long-term cohort studies tracking adolescents 5-10 years post-pandemic to identify delayed effects and resilience trajectories; (2) Implementation science evaluating which prevention adaptations (e.g., telehealth, digital SEL) demonstrate sustained effectiveness; (3) Mechanism studies elucidating pathways linking pandemic stressors to suicidal behavior, particularly the role of digital environments; (4) Cross-cultural research examining pandemic impacts in underrepresented regions; and (5) Intervention trials testing scalable prevention programs suitable for post-pandemic implementation.

Policy Recommendations

Evidence from this review supports: (1) Universal screening implementation in schools and primary care with adequate follow-up resources; (2) Digital safety regulations addressing cyberbullying on social media platforms where adolescents congregate; (3) Economic support for families experiencing unemployment/low income, given four-fold mental health risk; (4) Integrated service models combining telehealth with in-person care; and (5) Workforce development addressing the critical shortage of mental health professionals.

Clinical Practice

Clinicians should: (1) Routinely assess for both traditional bullying and cyberbullying victimization; (2) Screen comprehensively for NSSI, recognizing it as a distinct risk factor beyond suicidal ideation; (3) Involve families as protective resources while assessing for family-based stressors; (4) Provide psychoeducation about healthy social media use; and (5) Maintain vigilance for emerging suicide risk in the post-pandemic period as support systems erode.

5. Conclusions

This narrative review synthesized evidence demonstrating that COVID-19 created a multifaceted mental health crisis among adolescents, characterized by increased psychological distress, a dramatic shift from traditional bullying to cyberbullying, and complex patterns of suicidal behavior. While some countries showed stable or decreased suicide rates during acute pandemic

phases, concurrent increases in suicidal ideation, NSSI, and emergency presentations signal ongoing risk that may manifest in delayed increases as pandemic consequences compound. Evidence-based prevention requires multi-tiered approaches combining universal strategies (screening, SEL programs), selective interventions (support for vulnerable populations), and indicated treatments (crisis services, family interventions). The persistent shortage of mental health professionals and lack of comprehensive national prevention plans remain critical barriers requiring urgent policy action. Future research must track long-term outcomes, evaluate prevention program effectiveness, and address substantial evidence gaps in low-resource settings to protect adolescent mental health in post-pandemic contexts.

Overall, a multi tiered, multi sectoral approach is essential to address adolescent suicide risk in pandemic and post pandemic contexts. Strengthening collaboration between schools, healthcare services, families, and community organizations will be crucial to reduce the burden of suicidal behavior and protect the mental health of young people worldwide. In line with the objectives of this research, we highlight the important influence of the COVID-19 pandemic on adolescent mental health.

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