

Supplement 1: Table S1: Details of included studies: 1<sup>st</sup> Jan. 2020 to 7<sup>th</sup> Sep. 2021

Authors	Report type	Country (region) of study setting	Study design and data used	Outcome	Findings	Comments/limitations including considerations from NIH quality checklist	Quality rating of evidence relating specifically to self-harm <sup>1</sup>
1. Capuzzi et al., 2020 (1)	Peer-reviewed article	Italy (Lombardy)	Emergency psychiatric evaluations, including 'self-harm/suicide' attempts as a separate category, at psychiatric emergency rooms in two centres in Lombardy were compared in two equivalent periods pre-COVID-19 (22 Feb 2019-5 May 2019) and following the first COVID-19 case in Italy up to end of first phase of lock-down (21 Feb 2020 to 3 May 2020). Data were obtained from hospital registers.	Psychiatric emergency department consultations for suicide attempt/self-harm.	In period A (2019) there were 68 attendances (17.5%) for self-harm/suicide attempt compared to 59 in period B (2020).  The rate of self-harm consultations as a proportion of all consultations was higher during the COVID-19 period.	Low numbers of self-harm/suicide attempts included in the study.  No definition of self-harm/suicide attempt was provided. Limited information about the methods for extracting data from electronic health records.  Significance testing was only conducted for differences in self-harm as a proportion of total attendances, not for differences between absolute numbers.	Low
2. Carr, Steeg et al. 2021 (2)	Peer-reviewed article	UK (nationwide)	Anonymised patient data from primary care records of patients from 1697 UK general practices registered in the Clinical Practice Research Datalink were included. Monthly incident and total episodes of primary care recorded self-harm for the period March-September 2020	Primary care-recorded self-harm	The incidence of self-harm was 37.6% lower than expected in April, 2020 compared to expected rates and the all episode event rate was 36.6% lower.	The self-harm outcome was based on a broad definition which included episodes of varying suicidal intent.  It is not known how many of the primary care recorded self-	High/moderate

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			were compared to expected counts based on data from 1 January 2010 to 29 <sup>th</sup> February 2020.		In April 2020, incidence and event rates for self-harm were substantially lower than expected for women and people aged below 45 years. Self-harm incidence increased from August 2020, in the 10–17-year age group.	harm episodes had resulted in hospital presentations.	
3. Chen et al., 2020 (3)	Peer-reviewed article	England (Cambridge)	Data were obtained from hospital clinical record systems. People using or referred to inpatient and community mental health services (including psychological therapy services) from liaison psychiatry in Cambridge and Peterborough. The study period included 11 March 2014 – 30 August 2020, with 23 March 2020 used as the event date for interrupted time series analysis.	Number of referrals following presenting problems involving intentional drug overdose and other forms of self-harm	A marked reduction ( $p < 0.001$ ) in liaison psychiatry referrals following intentional drug overdose and self-harm occurred after 23 March 2020. The percentage reduction was not specified.	Liaison team referrals only (not all ED attendances) at a single hospital. Liaison psychiatry referral pathways may have changed as a result of COVID-19.  Seasonal trends were accounted for in the analysis.	Moderate
4. Dragovic et al., 2020 (4)	Peer-reviewed article	Australia (Western Australia)	Data from three EDs were extracted from the Western Australia North Metropolitan	Numbers of ED presentations for suicidal	Suicidality and self-harm presentations decreased by 26%, from 269 in the 2019	The data collection methods lack contextual detail. The authors do not describe the	Moderate

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			Health Services Emergency Department Data Collection database. Attendances over the period January to May 2020 were compared to those that occurred over the same calendar month during 2019.	and self-harm behaviour.	study period to 199 in 2020 ( $p < 0.001$ ).	behaviours included as 'suicidal and self-harm behaviours', though state that ICD-10 psychiatric diagnoses codes were used.	
5. DelPozo-Banos, Lee et al. 2021 (5)	Preprint	Wales (nationwide)	An existing databank of individual-level, linkable electronic health records from primary care, ED and hospital data was utilised.  Weekly healthcare contacts for self-harm were compared between Wave 1 (9 <sup>th</sup> March 2020 to 16 <sup>th</sup> August 2020) and Wave 2 (17 <sup>th</sup> August 2020 to 14 <sup>th</sup> March 2021) and the equivalent calendar periods in 2016 to 2019.	Number of self-harm contacts including primary care consultations, ED presentations and hospital admissions.	Across all healthcare settings, weekly self-harm contacts reduced by around 40% in Wave 1 compared to the equivalent periods in 2016 to 2019. Levels returned to before COVID-19 levels by July-August 2020, and in Wave 2 reduced by around 30%.  Disproportionate reductions in primary care contacts for self-harm were observed.  Similar patterns were seen in each setting.	Nationwide coverage.  Fluctuations in previous years were accounted for in the trends during the COVID-19 periods.  Multiple healthcare settings were examined.	High/moderate

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6. Gesi, Grasso et al. 2021 (6)	Peer-reviewed article	Italy (Lombardy)	Electronic health records extracted from three EDs. The period 8 <sup>th</sup> March to 3rd June 2020 was compared to the equivalent calendar period in 2019.	Three categories of self-harm - suicide attempt, self-injuring, drug ingestion - were examined.	Suicide attempts: 1 in 2019 vs. 3 in 2020 Self-injury: 21 in 2019 vs. 14 in 2020 Drug ingestion: 54 in 2019 vs. 49 in 2020.	No statistical tests for absolute differences were reported.  No details about how the three self-harm categories were classified was provided.  Low event counts.	Low
7. Gonçalves-Pinho et al., 2020 (7)	Peer-reviewed article	Portugal (North Region)	People attending a Psychiatric ED in a tertiary hospital in North Portugal. Attendances between March 19 <sup>th</sup> and May 2 <sup>nd</sup> 2020 (the COVID-19 lockdown period in Portugal) were compared with the same dates in 2019.	'Suicide and self-inflicted presentations' to psychiatric ED.	A significant reduction was identified in numbers of presentations of suicide and intentional self-inflicted injury during the COVID-19 lockdown period compared to the same period in 2019: N=36 vs. 81, a 56% reduction.	The number of patients presenting with 'suicide and intentional self-inflicted injury' included in the study was relatively small.  While the study stated ICD-9 codes were used to identify diagnostic groups, the definition of 'suicide and self-inflicted presentation' was not provided.  Statistical tests were not presented for differences in numbers.	Low

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						of visits between the two time periods.	
8. Harmon , Fliss et al. 2021 (8)	Peer-reviewed article	USA (North Carolina)	State-wide hospital surveillance system of ED presentations from January to mid- November in 2019 and in 2020. Data were coded using ICD-10 codes and Centers for Disease Control and Prevention (CDC) keywords. Quarterly counts of ED presentations for self-harm. Quarter 2 (1 <sup>st</sup> April to 30 <sup>th</sup> June 2020) was identified as the period acutely affected by COVID-19.	ED presentation for self-harm	A 26% reduction in presentations for self-harm (3167 in 2019 vs. 2352 in 2020) was observed.  In the subsequent quarters of 2020, numbers of self-harm presentations almost reached 2019 levels.	Large, state-wide study based on existing data collection systems.  No information on missing data was provided.	Moderate
9. Hawton, Casey et al. 2021 (9)	Peer-reviewed article	England (Oxford and Derby)	Data were collected from EDs of two general hospitals. In one hospital data were extracted from monitoring forms completed by clinicians treating patients presenting with self-harm and, in the other hospital they were extracted from electronic health records. Mean number of weekly presentations during the lockdown period (23 <sup>rd</sup> March to 14 <sup>th</sup> June 2020) compared to the equivalent calendar period in 2019 as well	Self-harm presentations to ED	There was a 37% reduction in mean number of weekly self-harm presentations during the lockdown period compared to the equivalent calendar period in 2019.	A broad definition of self-harm was included. Only hospital presentations followed by an assessment were included, rather than all presentations.  There was a larger reduction for presentations involving self-poisoning.	Moderate

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			as a pre-lockdown period (6 <sup>th</sup> January to 22 <sup>nd</sup> March 2020).				
10. Jollant, Roussot et al. 2021 (10)	Peer-reviewed article	France (nationwide)	Data were from a national database of patients admitted to hospitals. All hospital stays for self-harm (based on ICD codes) were included. Monthly numbers of hospital stays for self-harm, from January to August 2020 compared to the same months in 2019, 2018 and 2017.	Hospitalisation for self-harm.	<p>An overall decrease of 8.5% was found in the months of January to August 2020 compared to 2019, with a 21.1% reduction in April 2020 compared to 2019.</p> <p>Increase in hospitalisations found among people aged 75 years and over.</p> <p>Separate analysis was conducted on more serious episodes (those leading to ICU admission and those using violent methods). Both increased in frequency during the 2020 period.</p>	<p>Self-harm presentations not resulting in hospitalisation were not included.</p> <p>Statistical tests were presented for monthly differences.</p>	Moderate
11. Mansfield, Mathur et al.	Peer-reviewed article	England and Northern Ireland	General practices contributing data to the Clinical Practice Research Datalink, including around 10 million individuals. Weekly primary care contacts	Primary care-recorded self-harm	Reductions in primary care contacts for self-harm during the COVID-19 period were	This was a large study, using a broad definition of self-harm.	High/moderate

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2021) (11)			among patients aged 11 years and over in a pre-COVID-19 period (1 <sup>st</sup> January 2017 to 7 <sup>th</sup> March 2020) were compared to the period with COVID-19 restrictions (28 <sup>th</sup> March to 18 <sup>th</sup> July 2020).		observed: odds ratio 0.56 (CI 0.54–0.58).	While the study states it is based in the UK, only data from English and Northern Irish practices were included. It is not known how many of the primary care recorded self-harm episodes led to hospital presentations.	
12. McIntyre et al. 2021 (12)	Peer-reviewed article	Ireland (Galway)	The liaison psychiatry team hospital database, which includes self-harm referrals from ED, medical and surgical wards and the critical care unit at one hospital. A COVID-19 study period of 1 March 2020–31 May 2020 was compared with the same period in 2017–2019.	Numbers of referrals to liaison psychiatry from ED, medical and surgical ward and critical care unit following self-harm.	<p>In the period March–May 2020, there were 119 referrals, significantly lower than in the same period in 2019 (130), an 8.5% reduction.</p> <p>The reduction was greatest in the March–April period (-35%).</p> <p>An increase in lethality of presentations was observed.</p>	<p>Incidence based on referrals to liaison psychiatry, which is likely to underestimate total hospital-presenting cases.</p> <p>Liaison psychiatry referral pathways may have changed as a result of COVID-19.</p> <p>Broad definition of self-harm provided, though details on how records involving self-harm were selected was not provided.</p>	Moderate

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						Significance testing was only presented for differences in proportions of presentation types.	
13. Mourou vaye, Bottema nne et al. 2020 (13)	Peer-reviewed article	France (Paris)	Data pertained to one paediatric hospital in Paris. This was a retrospective observational study, with outcome data obtained from discharge codes (ICD codes applied unspecified). The study period was between 1 <sup>st</sup> January 2018 and 1 <sup>st</sup> June 2020. The French COVID-19 lockdown period (16 <sup>th</sup> March 2020 to 10 <sup>th</sup> May 2020) was compared to the study period before and after the lockdown. Numbers of ED and hospital admissions for suicidal behaviour among children aged 7-17 years were compared.	ED and hospital admissions for suicidal behaviour	<p>A 50% reduction in was observed during the lockdown period. There was no difference in observed characteristics of patients (including proportion admitted to intensive care units) between the two periods.</p> <p>The incidence of admissions for suicidal behaviour was also lower during summer breaks.</p>	<p>The specific suicidal behaviours included in the outcome measure were not specified, though ICD-10 codes were used.</p> <p>The overall number of admissions during the two time periods was stated (234 between 1 January 2018 and 1 June 2020), but the number of admissions during the lockdown period was not. Confidence intervals were relatively wide.</p>	Moderate
14. Nuzum, 2020 (14)	Preprint	UK (4 boroughs in South London)	Researchers extracted data from ED and 'place of safety' electronic health records. Three periods in 2020 were compared: before (3 <sup>rd</sup> February), during (16 <sup>th</sup> March to 10 <sup>th</sup> May) and	The outcome measures were self-harm and categories of self-harm	Mean weekly presentations of self-harm were 34% lower during lockdown compared to the pre-lockdown period and	There were small sample sizes when comparing self-harm attendance frequencies. The level of agreement between	Moderate



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			after lockdown (11 <sup>th</sup> May to 28 <sup>th</sup> June).	including self-poisoning, self-injury and combined/other self-harm.	<p>37% higher in the post-lockdown period compared to the lockdown period.</p> <p>Reductions in the lockdown period compared to the pre-lockdown were highest for presentations for self-injury, while increases in the post-lockdown period compared to lockdown were highest in this group.</p>	researchers coding self-harm from the electronic health records was high. Only episodes assessed by the mental health liaison team were included. However, it is not clear if the pandemic affected likelihood of assessment.	
15. Ontiveros, Levine et al. 2021 (15)	Peer-reviewed article	USA (California)	Retrospective review of data from the California Poison Control System. Monthly numbers of calls involving suicide attempts made to the California Poison Control System, from health services and residents. A 'pre-COVID era' (March, April, and May 2018 and 2019) was compared to the 'COVID era', defined as March, April, and May 2020.	Self-poisoning	<p>The number of calls involving suspected suicide attempts was lower during the COVID era, compared with the pre-COVID era.</p> <p>Reductions in all age groups were observed except for 70+ years</p>	Only self-harm involving self-poisoning was included. The method for determining which calls related to poisonings that were 'suspected suicide attempts' was not described.	Low

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16. Pignon et al. 2020 (16)	Letter	France (Paris)	Data on emergency psychiatric consultations from three psychiatric emergency centres. Numbers during the first four weeks of lockdown, from March 17 <sup>th</sup> 2020 were compared to the corresponding weeks in 2019.	Suicide attempts	During the four first weeks of lockdown, consultations for suicide attempts reduced to 32 from 75 in the same period in 2019, a 57% reduction.	<p>This was a letter so was relatively brief with very little information on methods of data extraction, inclusion criteria, coding and pooling of data from the three centres.</p> <p>Significance testing was only presented for differences in proportions of presentation types.</p>	Low
17. Steeg, Bojanić et al. 2021 (17)	Peer-reviewed article	England (Greater Manchester)	An integrated electronic health record database covering the whole GP-registered population of a large UK conurbation was utilised to examine frequencies of primary care-recorded self-harm episodes between 1 <sup>st</sup> January 2019 and 31 <sup>st</sup> May 2021. Frequency of self-harm episodes recorded in patients' primary care electronic health records were examined.	Primary care-recorded self-harm	<p>Frequency ratios of incident and all episodes of self-harm were 0.59 and 0.69 respectively in April 2020 compared to February 2020.</p> <p>Between August 2020 and May 2021 frequency ratios were 0.92 for incident episodes and 0.86 for all episodes compared to the same months in 2019.</p>	<p>Some of the primary care-recorded episodes are likely to have been hospital presentations.</p> <p>The self-harm outcome was based on a broad definition that included episodes of varying suicidal intent.</p>	High/moderate

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18. Walker et al., 2020 (18)	Peer-reviewed article	USA (4 states)	<p>Data from 18 EDs in four states (Minnesota, Florida, Arizona and Wisconsin) from electronic health records in an integrated health system.</p> <p>The pandemic period (17 March - 21 April 2020) was compared to the same period in 2019 as well as a pre-pandemic period in 2020 (9 Feb to 16 – March 2020).</p>	Numbers of presentations with a diagnosis of suicide attempt	Total ED attendances with 'suicide' diagnosis were 36 during the pandemic study period compared to 59 in the equivalent 2019 period, a reduction of 39%.	<p>Multi-site study using data from an integrated health system.</p> <p>Not clear what the diagnosis 'suicide' included.</p> <p>The statistical tests compared suicide attempts as a proportion of total attendances, rather than changes in absolute numbers.</p>	Low
19. Yard, Radhakrishnan et al. 2021 (19)	Report (National Center for Injury Prevention and Control)	USA (49 states – all except Hawaii)	Study included approximately 71% of the US's EDs in 49 states. The system is an established programme collecting data from ED electronic health records. ED presentations for suspected suicide attempts among people aged 12 to 25 years up to March 2021.	ED presentation for suicide attempt	The average weekly number of ED visits for suspected suicide attempts fell by 26% among ages 12-17 and by 17% among ages 18-25 years during spring 2020 compared with the 2019 reference period.	<p>One of the few studies to examine longer-term impacts. Latest date of study period was 20<sup>th</sup> March 2021.</p> <p>Only EDs that consistently reported data to the surveillance programme were included to improve data quality.</p>	High/moderate

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					During summer 2020 through to winter 2021, increases compared to equivalent weeks in 2019 were found for girls aged 12-17. Among boys aged 12-17 and all adults aged 18-25 years, rates in summer 2020 through to winter 2021 were in line with those in 2019.	Outcome included 'some non-suicidal self-harm' presentations.	
20. Bothara, Raina et al. 2021) (20)	Peer-reviewed article	New Zealand (Christchurch)	Single hospital ED. Data were extracted from routinely collected electronic health records using the SNOMED CT classification system. Two cohorts were compared: before lockdown, 15 <sup>th</sup> February to 18 <sup>th</sup> March 2020, and during the 33 days of lockdown, 26 <sup>th</sup> March to 28 <sup>th</sup> April 2020. Numbers of self-harm presentations by children aged under 16 were examined, with 'self-harm' as one of the diagnostic subcategories.	Numbers of self-harm presentations by children aged under 16.	There were six presentations during the lockdown period and none in the period before the lockdown.	The self-harm episode frequencies were very low.  Data prior to 2020 were unavailable for comparison.	Low

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21. Canzi, De Ponti et al. 2020 (21)	Peer-reviewed article	Italy (Milan)	A single maxillofacial trauma ED. Characteristics of included patients were added to a specific database. Admission with diagnosis of 'major trauma' (defined as trauma with potential or ongoing life-threatening injuries) or facial trauma. Suicide attempt was included as a category of this outcome. The COVID-19 lockdown period, 8 <sup>th</sup> March 2020 to 8 <sup>th</sup> May 2020, was compared to the equivalent calendar year periods in 2017 to 2019.	Self-harm requiring admission for major trauma	In 2020, 31 episodes of self-harm meeting the study inclusion criteria were recorded, an increase compared to 2017, 2018 and 2019.	<p>The outcome was limited to self-harm resulting in major trauma.</p> <p>The process for data extraction from the clinical records to the database was not described.</p> <p>Numbers of self-harm outcome events were low.</p> <p>The increase in frequency of self-harm admissions leading to major trauma may indicate greater severity of self-harm during the COVID-19 period.</p>	Low
22. Gracia, Pamiás et al. 2021 (22)	Letter	Spain (Catalonia)	Population-based registry of presentations to health services for suicide attempts among adolescents aged 12-18 years. The first 12 months of the	Suicide attempts among adolescents aged 12-18 years.	During the COVID-19 period, 690 suicide attempts were registered compared to 552 in the previous year. A significant	<p>Definition of suicide attempt not provided.</p> <p>Exact health services utilised are not detailed.</p>	Low

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			COVID-19 pandemic (March 2020 to March 2021) were compared to the previous 12 months (March 2019 to March 2020).		increase in frequency was observed among girls only.	Methodological details lacking (publication is a letter not a full article).	
23. Habu, Takao et al. 2021 (23)	Peer-reviewed article	Japan (Okayama)	Electronic health records from emergency ambulance calls during March to August in 2018, 2019, and 2020.	Ambulance dispatches for suicide attempts.	<p>The number of emergency dispatches related to suicide attempts increased in 2020 (183) compared to 2018 (149) and 2019 (135).</p> <p>Increases were greater among women and persons aged 25-49. No change for ages 15-24 was observed.</p>	<p>No measure or definition of suicide attempt was provided - identified as recorded by ambulance crews</p> <p>No statistical testing was conducted.</p>	Low
24. Henry, Parthiban et al. 2021 (24)	Peer-reviewed article	England (Birmingham)	Data were extracted from coded electronic health records from one hospital. Numbers and proportions of self-harm presentations during the lockdown period (23 <sup>rd</sup> March 2020 to 1 <sup>st</sup> May 2020) and compared to the equivalent calendar period in 2019.	Total ED presentations involving self-harm.	<p>Increase in total number of self-harm presentations in the COVID-19 period compared to 2019 (113 vs. 103).</p> <p>More cases, and a larger proportion of the total, required hospital</p>	<p>The main focus of the study was on proportions of total presentations that involved self-harm.</p> <p>Only data from 2019 were included in the pre-COVID-19 comparison period.</p>	Low

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					admission in the 2020 period.		
25. Holland, Jones et al. 2021 (25)	Peer-reviewed article	US (48 states plus Washington, DC)	Electronic health records from more than 3,500 EDs contributing data to the US National Syndromic Surveillance Program, capturing approximately 70% of US ED visits. Weekly ED visit counts for suicide attempts by patients aged over 10 years, identified using ICD and SNOMED diagnostic codes. Mean weekly ED visit counts were presented for weeks 1 to 11 (before the decrease in overall ED visits) and weeks 12 to 41 (after the decrease in overall ED visits and including the period during which the national 'stay-at-home' order was in place).	ED visits for suicide attempts	Median ED presentation counts were significantly higher in weeks 12 to 41 of 2020 than 2019 for suicide attempts (n = 4940 vs 4656, P = .02).	Did not include self-harm not classified as a suicide attempt.  Broad coverage of the US population.	Moderate
26. Karakasi et al., 2020 (26)	Letter	Greece (Thessaloniki)	Numbers of psychiatric emergency presentations to the psychiatric emergency department of AHEPA University General Hospital of Thessaloniki. The comparison periods 1 March to 15-May 2019 and 15 November	Suicide attempts	During the restrictive measures in Greece (March – May 2020), the number of suicide attempts was higher in March - May 2020 (n=7) compared to the same period in 2019	Significance testing was only presented for differences in proportions of presentation types.  Small numbers.	Low

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			2019 to 31 January 2020 were compared to 1 March to 15 May 2020. (the COVID-19 period).		(n= 5) and Nov 2019 - Jan 2020 (n=4)	Uncertain if peer-reviewed.  Definition of suicide attempt was not provided.	
27. Moore, Siriwardena et al. 2021 (27)	Peer-reviewed article	England (East Midlands region)	Electronic health records of ambulance paramedics attending mental health emergencies between 23 <sup>rd</sup> March and 31 <sup>st</sup> July 2020 compared to the equivalent calendar period in 2019.	Emergency calls for 'suicide attempt' and 'intentional drug overdose'.	The numbers of suicide attempts were 1232 in the lockdown period vs. 1339 in the equivalent period in 2019. Intentional drug overdoses were 3079 in 2020 vs. 3227 in 2019.	Categories of 'suicide attempt' and 'intentional drug overdose' were based on clinical impressions.  No tests for statistical significance of differences in numbers were presented.	Moderate
28. Nia, Popp et al. 2021 (28)	Peer-reviewed article	Austria (Vienna)	Data were from one trauma centre registry. Numbers of patient visits were compared between 15 <sup>th</sup> March 2020 and 30 <sup>th</sup> April 2020 (lockdown) and the equivalent calendar period in 2019 (baseline).	Trauma admission for suicide attempt.	There was a significant increase in the frequency of hospital admissions due to attempted suicide, though numbers were very small (5 in the comparison period vs. 10 in the lockdown period).	No definition of 'suicide attempt' was provided. No search terms of clinical codes were provided for identifying these presentations.	Low



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29. Olding et al., 2021 (29)	Peer-reviewed article	England (London)	Data were from patient records. Numbers of presentations by trauma patients with penetrating injuries who were treated at one hospital in London, 23rd March to 29th April 2020 were compared to the same period in 2018 and 2019.	Self-inflicted injuries requiring treatment for penetrating trauma.	The number of self-harm episodes increased from n=1 in 2018 to 5 in 2019 and 8 in 2020.	Number of self-harm cases was too small to draw any strong conclusions.  Significance testing was not conducted.  Very little information on methods of data extraction and coding was provided.	Low
30. Popp, Smolle et al. 2021 (30)	Peer-reviewed article	Austria (Graz)	Division of Plastic, Aesthetic and Reconstructive Surgery at Medical University Graz. Retrospective study of patient records. The number of surgery cases during the lockdown period plus two weeks before lockdown (16 <sup>th</sup> March 2020 to 27 <sup>th</sup> April 2020) were compared with the equivalent calendar periods in 2019. The number of 'self-inflicted injuries and suicide attempts' was examined as a subcategory.	Self-harm requiring surgery	The number of procedures following self-harm increased significantly (2019: 0, 2020: 16 cases, p < 0.001).	Numbers in both the lockdown and 2019 periods were low. Only self-harm requiring plastic, aesthetic or reconstructive surgery was included in the outcome measure.	Moderate
31. Rhodes et al.	Peer-reviewed article	USA (South Carolina)	Data were from a registry of attendees at one Level 1 trauma centre. Numbers of admissions	Suicide attempts requiring	There were 11 admissions for suicide attempt in the 2020	Most of the 2020 period studied (15 of	Low

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2020 (31)			were compared between the period including the COVID-19 lockdown (January 1 - May 1 2020) and the January 1 - May 1 period in 2019.	trauma treatment	study period compared to 6 in the 2019 comparison period.	the 18 weeks) preceded lockdown.  Small numbers.  The statistical tests compared suicide attempts as a proportion of total attendances, rather than changes in absolute numbers.	
32. Bruns, Willems en et al. 2021 (32)	Preprint	Germany (multiple regions)	Multicentre study of 37 paediatric intensive care units (ICUs). Patients under 18 years of age who presented with trauma or injuries during the period of the first German COVID-19 lockdown (16 <sup>th</sup> March to 31 <sup>st</sup> May) in the years 2017 to 2020. Data were manually entered into data collection forms from discharge summaries.	ICU admission following suicide attempt.	No statistically significant difference in standardised morbidity ratios between the lockdown period and the 2017-2019 reference period were observed.	Numbers were low: 29 in the lockdown period.  The German modified ICD system was used to identify admissions following suicide attempts.	Low
33. Chang, KM. et al. 2020 (33)	Peer-reviewed article	South Korea (Chungnam province)	Single-centre study in a trauma centre of one hospital. Data appears to be extracted from patients' hospital electronic health records. Episodes of self-	Episodes of self-harm referred to the trauma centre.	The number of self-harm episodes was higher in March 2020 compared to the annual five-year	The study only included 'violent' methods of self-harm and was limited to persons who presented to hospital	Low

Authors	Report type	Country (region) of study setting	Study design and data used	Outcome	Findings	Comments/limitations including considerations from NIH quality checklist	Quality rating of evidence relating specifically to self-harm <sup>1</sup>
			harm referred to the trauma centre. Prevalence in March 2020 was compared to the pooled estimates for years 2015 to 2019 and for March 2015 to 2019.		average, but not compared to the 2015-2019 average for March specifically.  No change for ages 10-19 years.	and were treated by the trauma centre.  The study was underpowered, with 9 episodes of self-harm observed during March 2020.	
34. Chiba, Lewis et al. 2021 (34)	Peer-reviewed article	USA (California)	Examination of trauma admissions from one hospital. Clinical data were extracted from routine hospital records. The lockdown period (20 <sup>th</sup> March to 30 <sup>th</sup> June 2020) was compared to the equivalent calendar period in 2019. Numbers of a range of trauma admissions, including 'suicide-related trauma admissions' examined.	'Suicide-related trauma admissions'	The number of 'suicide-related trauma admissions' increased by 38% from 26 in 2019 to 36 in 2020. This change was not statistically significant.	The outcome only included trauma-related methods of self-harm and excluded other methods, notably self-poisoning, which is the method used in most hospital-admitted self-harm episodes. The exact definition of the self-harm outcome was not reported.  The number of 'suicide-related trauma admissions' was lower (26 in 2019 vs. 36 in 2020).  The method of data extraction from clinical	Low

Authors	Report type	Country (region) of study setting	Study design and data used	Outcome	Findings	Comments/limitations including considerations from NIH quality checklist	Quality rating of evidence relating specifically to self-harm <sup>1</sup>
						records was not described.	
35. Coates, Marshal et al. 2021 (35)	Preprint	USA (Portland, Oregon)	Data were extracted from electronic health records at one hospital. Monthly numbers of hospital and ED admissions for suicide attempts among children and adolescents (up to age 19) were examined.	Hospital presentations for self-harm	The number of admissions for suicide attempts was not significantly elevated during the COVID-19 pandemic (specific dates not provided).	Methods of extracting data from electronic health records were not described.  Specific dates for comparisons were not clear.  No clear definition of suicide attempt was provided.	Low
36. Gil-Jardiné, Chenais et al. 2021 (36)	Peer-reviewed article	France (Gironde)	Free-text information held in electronic health records at an emergency medical contact centre were classified using a natural language processing neural network. Trends in reasons for calls in 2020, before, during and after the lockdown (17 <sup>th</sup> March to 11 <sup>th</sup> May 2020) were examined.	Calls relating to self-harm	No discernible trends were found in frequency of calls relating to self-harm.	No definition of self-harm was provided.  Statistical tests were not reported.	Low
37. Jacob et al., 2020 (37)	Peer-reviewed article	Australia (Westmead)	Study of a single trauma centre in Australian hospital with data collected from a prospective trauma registry. Mean monthly	Self-harm admissions to the trauma unit.	During March and April 2020, no difference in admissions following self-harm was seen (7	The methods of data collection were not described.	Low

Authors	Report type	Country (region) of study setting	Study design and data used	Outcome	Findings	Comments/limitations including considerations from NIH quality checklist	Quality rating of evidence relating specifically to self-harm <sup>1</sup>
			number of trauma admissions among patients aged 16 years and over during March and April 2020 were compared to the mean during the same months in 2016 to 2019.		in 2020 vs. an average of 3 to 6 in 2016 to 2019).	The study was under-powered for examination of mean monthly self-harm admissions.  Significance testing was not presented due to small numbers.	
38. Joyce, Richards on et al. 2021 (38)	Peer-reviewed article	New Zealand (Christchurch)	Electronic health records at the ED at Christchurch Hospital. Two cohorts consisted of 'pre-lockdown' (15 <sup>th</sup> February to 18 <sup>th</sup> March 2020 and 'lockdown' (26 <sup>th</sup> March to 28 <sup>th</sup> April 2020). SNOMED codes were extracted, followed by detailed review of records by the research team.	Self-harm presentations to the ED	Absolute numbers of self-harm and overdose presentations before lockdown were reported as similar to during lockdown: self-harm: 35 before lockdown vs. 36 after; overdose: 158 vs. 128.  Though only reported as a proportion of all presentations, the number of overdoses involving paracetamol with or without ibuprofen increased (22 pre-lockdown vs. 35 during lockdown).	The study mainly reports differences in proportions of presentations involving self-harm and overdose as a proportion of overall presentations. Absolute differences were reported in the text.  The main comparisons were based on a pre-lockdown period in 2020, and therefore seasonal variations in presentation rates were not accounted for in the analyses.	Moderate

Authors	Report type	Country (region) of study setting	Study design and data used	Outcome	Findings	Comments/limitations including considerations from NIH quality checklist	Quality rating of evidence relating specifically to self-harm <sup>1</sup>
39. Page, Bandara et al. 2021 (39)	Letter	Australia (Sydney)	Data were extracted from one ED using hospital records. An established self-harm field and text searches were used to identify self-harm. The period 1 <sup>st</sup> March to 31 <sup>st</sup> July 2020 was compared to the period 1 <sup>st</sup> March 2018 to 28 <sup>th</sup> February 2020).	Number of self-harm presentations to the ED.	No significant increase in intentional self-harm in the period from March 2020 among males or females.  An increase was found for males from the lowest socioeconomic position group.	Limited methodological detail reported. Publication is correspondence rather than full article.	Low
40. Prados-Ojeda, Gordillo-Urbano et al. 2021) (40)	Peer-reviewed article	Spain (Cordoba)	The data were extracted from an electronic health record system. The lockdown period, 15 <sup>th</sup> March to 15 <sup>th</sup> May 2020 was compared with the equivalent calendar period in 2019. The main outcome was 'suicide-related' ED presentations which coalesced 'suicide attempts' and 'suicidal ideation'. The number of suicide attempts was, however, reported separately for each comparison period.	ED presentations for suicide attempt	The number of suicide attempts was similar: 86 in the 2019 study period vs. 73 in the COVID-19 period.  A higher proportion of suicide attempts required ICU admission during the COVID-19 period, although event counts were very small.	Self-harm presentations not recorded as 'suicide attempt' were not included.  No information on methods used to increase reliability of data extraction was provided.  Numbers of suicide attempts were low.	Low
41. Rajput et al. 2020 (41)	Peer-reviewed article	England (Merseyside)	Data on trauma admissions to a single level 1 trauma	Numbers of admissions to trauma centre	No change in total numbers of trauma centre attendances for self-harm in the	Small sample size, though 95% confidence intervals were presented.	Low

Authors	Report type	Country (region) of study setting	Study design and data used	Outcome	Findings	Comments/limitations including considerations from NIH quality checklist	Quality rating of evidence relating specifically to self-harm <sup>1</sup>
			centre in Liverpool were collected from a trauma research network database. Three 7-week periods were compared: (1) Lockdown: 23 March 2020–10 May 2020; (2) Pre-lockdown: 7 weeks prior to lockdown (27 January 2020–15 March 2020); (3) Pre-lockdown 2019: equivalent 7-week period in 2019 (25 March 2019–12 May 2019).	following self-harm	lockdown study period (n=14) compared to the equivalent 2019 period (n=20).	No definition of self-harm was provided, nor were details about how data were extracted.	
42. (Shields, Bernard et al. 2021 (42))	Peer-reviewed article	England (Manchester)	ED codes and electronic health records were used to collect data on admissions from one adult ED. Numbers of patients with a recorded episode of self-harm aged 16 years and over were compared between the COVID-19 lockdown period (1 <sup>st</sup> March to 31 <sup>st</sup> May 2020) and the equivalent calendar periods in 2019 and 2020.	Hospital admission for self-harm	Admission frequencies for self-harm during the 2020 COVID-19 period did not differ significantly from those for years 2018 and 2019.	Broad definition of self-harm used.  ED presentations not resulting in hospital admission were not included.  The outcome measure relied on accurate coding within the ED.	Moderate
43. Yeates, Grigorian et al. 2021 (43)	Peer-reviewed article	USA (Southern California)	Multicentre study including 11 trauma centres. Retrospective analysis of registry data in each centre. Suicide attempts were included as a secondary outcome in the study. A COVID-	Suicide attempts requiring trauma admission	No statistically significant change in frequency of suicide attempts leading to treatment in trauma centres.	The study only examined suicide attempts leading to treatment in a trauma centre, which would be a minority of all suicide	Low

Authors	Report type	Country (region) of study setting	Study design and data used	Outcome	Findings	Comments/limitations including considerations from NIH quality checklist	Quality rating of evidence relating specifically to self-harm <sup>1</sup>
			19 period (19 <sup>th</sup> March to 30 <sup>th</sup> June 2020) was compared to both a 'pre-COVID-19' period (1 <sup>st</sup> January 2020 to 18 <sup>th</sup> March 2020) and an antecedent period (19 <sup>th</sup> March to June 30 <sup>th</sup> 2019).			attempts presenting to general hospital EDs. Details about the specific methods used in the suicide attempts examined were not provided.	
44. Ougrin, Wong et al. 2021 (44)	Peer-reviewed article	10 high/middle income countries: England, Scotland, Ireland, Austria, Italy, Hungary, Serbia, Turkey, Oman, and the United Arab Emirates	Electronic health records of 23 hospital EDs in 10 the study countries. Hospital presentations for self-harm among children and adolescents aged up to 18 years were compared between the period 1 <sup>st</sup> March to 30 <sup>th</sup> April 2020 to the same period in 2019. Two self-harm outcomes were measured: a broad definition based on the UK NICE clinical guidelines and severe self-harm, defined as meeting criteria for high lethality. However, differences in incidence were only reported for the broad definition of self-harm.	Hospital presentation for self-harm	All study centres reported significantly fewer children and adolescents with self-harm presentations during the COVID-19 observation period. Monthly incidence of children and adolescents presenting with self-harm to EDs (aggregated across centres) during the covid-19 pandemic (2020: n = 470) was lower than in 2019 (n = 612).	Interrater agreement was assessed in the coding of severe self-harm presentations.  Much of the reporting is focussed on differences in the proportions of total psychiatric emergencies due to self-harm between the two time periods, rather than differences in presentation frequencies.	Moderate
45. Eray and Sahin	Peer-reviewed article	Turkey (Bursa)	Data were from one paediatric emergency service during the COVID-19 period (11 <sup>th</sup> March to	Numbers of children and adolescents admitted	There were 21 admissions in 2019 vs. 9 in 2020, a 57% reduction.	Details of data extraction were not provided.	Low



Authors	Report type	Country (region) of study setting	Study design and data used	Outcome	Findings	Comments/limitations including considerations from NIH quality checklist	Quality rating of evidence relating specifically to self-harm <sup>1</sup>
2021 (45)			30 <sup>th</sup> September 2020 were compared to those admitted during the equivalent calendar period in 2019.	following a suicide attempt.		Suicide attempt was not defined.  Low event counts.  No statistical test for the absolute difference was reported.	
46. Fidancı, Taşar et al. 2021 (46)	Peer-reviewed article.	Turkey (Ankara)	Data were extracted from electronic health records from one paediatric ED. Numbers of consultations for patients aged 18 years and under during 1 <sup>st</sup> April to 31 <sup>st</sup> October 2020 were compared to the equivalent calendar period in 2019.	ED visits for suicide attempts.	During the antecedent April to October 2019 period there were 187 visits for suicide attempts vs. 31 for the equivalent COVID-19 period in 2020.	No information on the definition of suicide attempt applied was given.  No statistical test for the absolute difference was reported.	Low
47. Thongchuan, Mahawongkajit et al. 2021 (47)	Peer-reviewed article	Thailand (Northern Bangkok)	Data were extracted from electronic health records of one university teaching hospital between June and December 2019 (pre-COVID-19) and January to June 2020 (COVID-19 period). Numbers of adult patients aged 18 years and over who had ingested a corrosive substance and been admitted to surgical department were compared between the two time periods.	Self-poisoning with corrosive substances	More patients were admitted during the COVID-19 period: 20 vs. 9 in the pre-COVID-19 period.	Analysis did not account for seasonal variation.  Low event counts.  Focussed only on self-harm involving corrosive substances requiring surgery, though this is a common method of	Moderate

Authors	Report type	Country (region) of study setting	Study design and data used	Outcome	Findings	Comments/limitations including considerations from NIH quality checklist	Quality rating of evidence relating specifically to self-harm <sup>1</sup>
						self-harm in Asian countries.	
48. Stašević-Karličić, Đorđević et al. 2021 (48)	Peer-reviewed article	Serbia (Belgrade)	Data were extracted from electronic health records at a psychiatric ED. The study compared two periods: the period from March to August 2020 (the COVID-19 period) and the same period in 2019.	Number of patients examined at a psychiatric ED due to suicide attempts.	A statistically significant increase in the number of suicide attempts during the COVID-19 period was observed (159 persons during COVID period and 139 persons during the non-COVID period).	The definition of 'suicide attempt' was not provided, though the authors stated it included self-poisoning, self-injury, jumping from height and self-ignition. Methods of identifying patients meeting the inclusion criteria were not described and data collection methods were not provided.	Low
49. Knipe, Silva et al. 2021 (49)	Peer-reviewed article	Sri Lanka (Kandy)	Electronic health record data from a toxicology unit at one hospital were used to identify presentations of self-poisoning. Additional data was then collected from routinely collected clinical records. Numbers of self-poisoning presentations to hospital were compared between a pre-pandemic period (1 <sup>st</sup> January 2019 to 19 <sup>th</sup> March 2020) and	Self-poisoning presentations to hospital	There was a 32% reduction in hospital presentations for self-poisoning in the pandemic period compared with pre-pandemic trends.	Pre-pandemic trends were accounted for.  Proportions of missing data in the pre-pandemic and pandemic periods were compared.	High/moderate

Authors	Report type	Country (region) of study setting	Study design and data used	Outcome	Findings	Comments/limitations including considerations from NIH quality checklist	Quality rating of evidence relating specifically to self-harm <sup>1</sup>
			the pandemic period (20 <sup>th</sup> March to 31 <sup>st</sup> August 2020).				
50. Jhanwar et al., 2020 (50)	Peer-reviewed article	India (Rishikesh)	Before and after cross-sectional prevalence study. Liaison psychiatry case records of all patients admitted to the emergency department (ED) of a government tertiary care teaching hospital comparing before lockdown (February 24 to March 23, 2020) to lockdown: March 24 to April 23, 2020).	Suicide attempt/self-harm identified from electronic health records.	Reduced total attendances: 51 before lockdown vs. 32 during lockdown.	The study included only a short timeframe and the numbers of patients included was relatively small.  The definitions of 'self-harm' and 'suicide attempt' applied are unclear. Methods of data extraction, for example, the between-rater reliability of identifying 'suicide attempt' was not discussed.	Low
51. Shrestha, Siwakoti et al. 2021 (51)	Peer-reviewed article	Nepal (Dhulikhel)	One ED in a university teaching hospital. Electronic health records were used to conduct this study of presentations involving fatal and non-fatal episodes of self-harm. The lockdown period (24 <sup>th</sup> March to 23 <sup>rd</sup> June 2020) was compared to the equivalent calendar period in 2019 and the period prior to the lockdown (24 <sup>th</sup>	Frequency of self-harm presentations, referral status and in-hospital and overall mortality.	The number of self-harm presentations in the lockdown period increased by 44% compared to the equivalent period in 2019.	The keywords used to search the electronic health records were provided and included a broad definition of self-harm.  The numbers of presentations in were relatively small (55 in the lockdown period	Moderate

Authors	Report type	Country (region) of study setting	Study design and data used	Outcome	Findings	Comments/limitations including considerations from NIH quality checklist	Quality rating of evidence relating specifically to self-harm <sup>1</sup>
			December 2019 to 23 <sup>rd</sup> March 2020).			and 38 in the 2019 comparison period) and the comparison periods were also brief.	

<sup>1</sup> high-moderate or moderate quality if risk of bias is considered low (i.e. Q3, Q6, Q7 & Q8 on NIH quality assessment checklist for before/after studies all scored “yes”).

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## Supplement 2: Search strategies for “The impact of the COVID-19 pandemic on self-harm and suicidal behaviour: update of living systematic review” and associated publications

### Scopus

TITLE-ABS-KEY("selfharm\*" OR "self harm\*" OR "self-harm\*" OR "self injur\*" OR "selfinjur\*" OR "self-injur\*" OR "selfmutilat\*" OR "self mutilat\*" OR "self-mutilat\*" OR "suicid\*" OR "parasuicid\*" OR "suicide" OR "suicidal ideation" OR "attempt\* suicide" OR "suicide attempt\*" OR "drug overdose" OR "selfpoisoning" OR "self poisoning" OR "self-poisoning" OR "self-injurious behavi\*" OR "selfmutilation" OR "self mutilation" OR "self-mutilation" OR "automutilation" OR "suicidal behavi\*" OR "selfdestructive behavi\*" OR "self destructive behavi\*" OR "self-destructive behavi\*" OR "selfimmolat\*" OR "self-immolat\*" OR "self immolat\*" OR "cutt\*" OR "headbang" OR "head-bang" OR "head bang" OR "overdose" OR "selfinflict\*" OR "self-inflict\*" OR "self inflict\*" OR "hopelessness" OR "powerlessness" OR "helplessness" OR "negative attitude\*" OR "emotional negativism" OR "pessimism" OR "depress\*" OR "hopelessness depression" OR "passivity" OR "sad-affect" OR "sadness" OR "decreased affect" OR "cognitive rigidity" OR "suicidality" OR "suicide ideation") AND TITLE-ABS-KEY("nCoV" OR "HCoV" OR "covid 19" OR "covid-19" OR "covid19" OR "coronavirus" OR "19 ncov" OR "19-ncov" OR "2019 ncov" OR "2019-ncov" OR "2019ncov" OR "n-cov" OR "ncov" OR "coronavirus disease\*" OR "sars-cov-2" OR "sars cov 2" OR "sars-cov 2" OR "mers-cov" OR "mers cov") AND PUBYEAR > 2020

→ The filter ‘PUBYEAR > 2020’ corresponds to the 2021 version of this search, in previous years we used ‘PUBYEAR > 2018’ and ‘PUBYEAR > 2019’ respectively

### Medline via PubMed

((mental health[TIAB] OR selfharm\*[TIAB] OR self-harm\*[TIAB] OR selfinjur\*[TIAB] OR self-injur\*[TIAB] OR selfmutilat\*[TIAB] OR self-mutilat\*[TIAB] OR suicid\*[TIAB] OR parasuicid\*[TIAB] OR (suicide[TIAB] OR suicidal ideation[TIAB] OR attempted suicide[TIAB]) OR (drug overdose[TIAB] OR self?poisoning[TIAB]) OR (self-injurious behavior?[TIAB] OR self?mutilation[TIAB] OR automutilation[TIAB] OR suicidal behavior?[TIAB] OR self?destructive behavior?[TIAB] OR self?immolation[TIAB])) OR (cutt\*[TIAB] OR head?bang[TIAB] OR overdose[TIAB] OR self?immolat\*[TIAB] OR self?inflict\*[TIAB]) OR (hopelessness[TIAB] OR powerlessness[TIAB] OR helplessness[TIAB] OR negative attitude\$[TIAB] OR emotional negativism[TIAB] OR pessimism[TIAB] OR depress\*[TIAB] OR hopelessness depression[TIAB] OR passivity[TIAB] OR sad-affect[TIAB] OR sadness[TIAB] OR decreased affect[TIAB] OR cognitive rigidity[TIAB] OR suicidality[TIAB] OR suicide ideation[TIAB])) AND ((coronavirus disease?19[TIAB] OR sars?cov?2[TIAB] OR mers?cov[TIAB]) OR (19?ncov[TIAB] OR 2019?ncov[TIAB] OR n?cov[TIAB]) OR ("severe acute respiratory syndrome coronavirus 2\" [Supplementary Concept] OR \"COVID-19\" [Supplementary Concept] OR COVID-19 [tw] OR COVID 2019 [tw] OR coronavirus [tw] OR nCoV[TIAB] OR HCoV))

Psy- and SocArXiv (both same query)

"(mental health OR selfharm\* OR self-harm\* OR selfinjur\* OR self-injur\* OR selfmutilat\* OR self-mutilat\* OR suicid\* OR parasuicid\* OR suicide OR suicidal ideation OR attempted suicide OR drug overdose OR self?poisoning OR self-injurious behavio?r OR self?mutilation OR automutilation OR suicidal behavio?r OR self?destructive behavio?r OR self?immolation OR cutt\* OR head?bang OR overdose OR self?immolat\* OR self?inflict\* OR hopelessness OR powerlessness OR helplessness OR negative attitude OR emotional negativism OR pessimism OR depress\* OR hopelessness depression OR passivity OR sad-affect OR sadness OR decreased affect OR cognitive rigidity OR suicidality OR suicide ideation) AND (coronavirus disease?19 OR sars?cov?2 OR mers?cov OR 19?ncov OR 2019?ncov OR n?cov OR COVID-19 OR COVID 2019 OR coronavirus OR nCoV OR HCoV)"

→ No date/content filters applied

Med and BioRxiv, WHO Covid-19 database

*We directly retrieve ALL new publications related to Covid-19 from these sources, see <http://connect.biorxiv.org/relate/content/181> for Bio- MedRxiv Covid feed and <https://search.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/> for WHO on a daily basis. There is no date filter, we retrieve each new report as it becomes available.*

*We then apply our systematic search to those results, as described here:*

*McGuinness et al., (2020). medrxiv: Accessing and searching medRxiv and bioRxiv preprint data in R. Journal of Open Source Software, 5(54), 2651. <https://doi.org/10.21105/joss.02651>*

*The search strategy is below, please note that the syntax is RegularExpression, but it was designed to correspond to the PubMed query you see above, with new lines being joined with 'OR' statements. The only exception is the removal of the AND statement relating to COVID-19 itself, because those 3 sources only include COVID-specific information.*

[Ss]elf[- ]?[li]njur(y|ious)[- ]?[Bb]ehavio?r  
[Ss]elf[- ]?([Mm]utilat-[li]mmolat)(ion|ed)  
[Aa]uto[- ]?[Mm]utilat(ion|ed)  
[Ss]uicidal[- ]?[Bb]ehavio?r  
[Ss]elf[- ]?[Dd]estructive)[- ]?[Bb]ehavio?r  
[Ss]uicide  
[Aa]ttempted[- ]?[Ss]uicide  
[Ss]uicidal[- ]?[li]deation  
[Ss]elf[- ]?[Hh]arm  
[Ss]elf[- ]?[Mm]utilat  
[Ss]elf[- ]?[li]njur  
[Pp]ara[- ]?[Ss]uicid  
[Dd]rug[- ]?[Oo]verdose  
[Ss]elf[- ]?[Pp]oison(ing|ed)

[Ss]elf[- ]?[il]nflict  
[Ss]elf[- ]?[il]mmolat  
[Cc]utt  
[Hh]ead[- ]?[Bb]ang  
[Oo]verdos  
[Hh]opelessness  
[Pp]owerlessness  
[Hh]elplessness  
[Nn]egative[- ]?[Aa]ttitude  
[Ee]motional[- ]?[Nn]egativism  
[Pp]essimism  
[Dd]epress  
[Pp]assivity  
[Ss]ad[- ]?[Aa]ffect  
[Ss]adness  
[Dd]ecreased[- ]?[Aa]ffect  
[Cc]ognitive[- ]?[Rr]igidity  
[Ss]uicidalitv  
[Ss]uicide[- ]?[li]deation  
[Mm]ental[- ]?[Hh]ealth  
[Mm]ental[- ]?[Hh]ealth[- ]?([Cc]ris[ei]s|emergenc)  
([pP]sychiatric|[Pp]sychotic|[Ss]chizophren\w\*|[Bb]ipolar|[Mm]ental\w\* ([li]ll\w\*|[Dd]isorder))[-  
]?([Cc]ris[ie]s|[Ee]mergenc|[Aa]cute)  
([Cc]ris[ie]s|[Ee]mergenc\w\*|[Aa]cute)[-  
]?([pP]sychiatric|[Pp]sychotic|[Ss]chizophren\w\*|[Bb]ipolar|[Mm]ental\w\* ([li]ll\w\*|[Dd]isorder))