CRISIS TEXT LINE |

How Youth Found Resilience During the Pandemic: Actions Within Reach

FULL REPORT **OCTOBER 2022**

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Acknowledgements

This report was a collaborative project of the Crisis Text Line Research and Impact team, with contributions of many others gratefully acknowledged.

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COVID	Coronavirus Disease 2019
ML	Machine Learning
URL	Uniform Resource Locator
vCC	Volunteer Crisis Counselor

Executive Summary

The top five main stressors discussed by youth were: depression/sadness, stress/ anxiety, relationships, suicide, and isolation.

Introduction

In 2021, against the backdrop of a burgeoning COVID pandemic, the U.S. Surgeon General sounded the alarm on another crisis; over the last decade, the mental health of America's youth had become an emergency. From 2009-2019, the number of **high school students** who reported being unable to participate in regular activities because they **felt sad or hopeless increased 40%** (from 26% to 37%)[1] . From 2019-2020, overall **mental health-related emergency department visits increased by 25%** for 5-to 11-year-olds and by 31% for 12-to 17-year-olds[2].

Crisis Text Line is an organization on the frontlines of this emergency, providing people of any age including youth (ages 17 and under) with free, 24/7 mental health support via SMS and WhatsApp since 2013. This report was created with insights from Crisis Text Line conversations with young people, across demographics, who reached out to Crisis Text Line throughout the pandemic (2019-2021). The findings illuminate the most pressing crises on the minds of young texters and the coping mechanisms that helped.

Youth described their main stressors as depression/sadness, stress/anxiety, relationships, suicide, and isolation. Youth also expressed hope for their situation and described a variety of low-cost or free activities that help improve their wellbeing and overall feelings of resilience.

Thanks to our partners, Hopelab, a social innovation lab and impact investor advancing solutions that support, affirm, and empower young people and Well Being Trust, a national foundation supporting the mental, social, and spiritual health of the nation.

[1] Centers for Disease Control and Prevention, October 23, 2020

[2] Children's Hospital Association, November 2, 2021

Key Takeaways

In the middle of the night in 2020 — when most mental health resources that provide services during core business hours were closed for the day — youth turned to Crisis Text Line.

Youth reached out to Crisis Text Line more often between 12am – 6am in 2020[3]. During 2020, almost one-fourth of youth conversations (24%) with Crisis Text Line began between midnight and 6am (a significant increase from 11% in 2019 and 14% in 2021). This may suggest that youth experienced more sleep disruptions during the first year of the pandemic.

We saw the most significant changes in youth conversations on topics of stress/anxiety, isolation and loneliness, grief and bereavement, and eating disorders and body issues during 2019-2021. These may be particular issues to monitor for growing trends in the coming year.

The top five main stressors discussed by youth were: depression/sadness, stress/anxiety, relationships, suicide, and isolation. These remained the top five stressors before and during the pandemic (from 2019-2021).

Confronted with this growing crisis, many youth demonstrated they already have free, accessible tools at their fingertips to feel better in moments of pain. The top 12 coping mechanisms identified by youth of all demographics were: music, reading/writing, sleeping or bathing, art, talking with friends, watching TV/videos, connecting with family, accessing therapy, exercising, engaging with school-based supports, meditation, and playing video games.

- Music was the most frequently mentioned coping mechanism across all years.
- Talking with friends and family, engaging in art, and meditation were frequent coping mechanisms in 2020 once COVID-19 emerged, but were mentioned less often in 2021.
- Over time, the percentage of youth conversations mentioning coping mechanisms of sleeping and showering, watching TV/videos, playing video games, and exercising generally increased.
- A smaller percentage of conversations with youth mentioned school-based supports as a coping mechanism from 2019-2020.
- The percentage of youth conversations that discussed reading and writing, and accessing therapy, decreased over time.

[3] Analyses adjusted for time zones

To learn more about our research visit: *research.crisistextline.org*

Actions Within Reach

Amid the growing mental health crisis, youth demonstrated that they have the coping skills and resilience to feel better in moments of pain. These results indicate that addressing the youth mental health crisis may start by empowering youth to turn to already-accessible tools and resources to build resilience.

Youth, caregivers/relatives, educators, and policymakers may consider the following ways to support youth mental health:

- **Youth**: Consider simple activities that can be part of your daily life that you may notice help you feel better when you are stressed or sad. For example, finding ways to express yourself, such as writing/reading, doing art, and playing or listening to music were all top coping mechanisms for youth in 2019-2021. Create or keep a list of coping mechanisms that work for you, and ask friends, family, and trusted adults for help in times of need.

- **Caregivers/Relatives**: Listen to the youth in your lives, and try to support them in old and new ways. Consider creating spaces to talk and listen, chances to connect with friends in-person, limited time to go on-line to provide opportunities to bond with others (such as in gaming communities or via TikTok).

- **Educators**: Keep a list of coping mechanisms at the ready to help your students go from a high-stress moment to a sense of calm like meditation or journaling. Youth who reached out to Crisis Text Line suggested a range of relaxation techniques and creative activities that helped them feel better. Work with other school staff to make time for youth to engage in coping mechanisms while in the classroom or common school spaces.

- **Policymakers**: Consider ways that less-traditional resources like music, relaxation, creative expression, connecting with friends and family, and exercise can be elevated and prioritized in mental health supports for young people. Support ways for young people to engage in coping tools like art, meditation, and music through school and community programming.

We hope this report provides practical insights into cost-effective, accessible ways we can support youth through moments of crisis so that young people can thrive. In addition, we believe this study can inform further research to explore coping mechanisms that address youth mental health crisis issues across demographics in ways that advance health equity. To learn more about our research visit: https://research.crisistextline.org/.

Why is it important to consider youth mental health in 2022?

In December 2021, the Surgeon General of the United States issued an advisory about an unfolding youth mental health crisis in the country. In it, he warned that youth mental health trends had been steadily deteriorating for a decade before the pandemic disrupted young people's lives and routines[4]. In 2019, one in three high school students reported feeling sad or hopeless, and the number of young people who felt depressed, seriously considered suicide, or made psychiatric visits to emergency rooms has continued to rise sharply for years.

The pandemic created "traumatic stressors that have the potential to further erode students' mental well-being"[5] , which is illustrated by research which has found that more than four in ten high school students reporting feelings of persistent sadness or hopelessness and one in five high school students reporting thoughts of suicide. As emergency room visits for suicide and self-harm continue to rise among children and young people, hospitals and doctors have called for action to address this national mental health emergency.

Crisis Text Line — a free, 24/7 crisis intervention service that operates via SMS and WhatsApp messages — has been providing mental health crisis counseling support to youth and people of allages since 2013. Crisis Text Line's text-message-based service is a unique platform particularly for youth, given that 95% of U.S. teens own or have access to smartphones[6], and 90% of them communicate via text messages. A recent study[7] noted that 76% of Crisis Text Line texters who responded to the optional post-conversation survey were under 25 years old, suggesting a large percentage of Crisis Text Line conversations are with youth and young adults.

Once a texter consents to Crisis Text Line's service, they are connected with a volunteer Crisis Counselor (vCC) to have a conversation. The vCCs receive 30 hours of interactive online training to develop skills in building rapport, de-escalation, risk assessment, and collaborative problemsolving. In addition, vCCs are supported by paid mental health professionals who monitor the text conversations in real time. These conversations provide unique insights into the mental health stressors that young people face, as well as coping mechanisms that helped them navigate these stressors.

This report was created in partnership with Hopelab, a social innovation lab focused on youth mental health, and Well Being Trust, a national foundation supporting mental, social, and spiritual health. We conducted a large-scale, United-States-based study of conversations on Crisis Text Line's platform between texters experiencing mental health crises and vCCs. The purpose of this report is to illuminate the most pressing crises on the minds of young texters – and the coping mechanisms that made them feel better.

[4] Throughout the report, we use the terms "young people" and "youth" to indicate people aged 17 or younger.

[5] Balingit, M. (2022, March 31)

[6] Vogels, Gelles-Watnick, & Massarat (August 10, 2022)

[7] Pisani, Gould, Gallo, Ertefaie, Kelberman, Harrington, Weller, & Green (2022)

Methods

Research questions:

We examined conversation insights from young people who reached out to Crisis Text Line to discuss mental health issues and stressors in 2019 (pre-pandemic), 2020, and 2021 (the first two years of the COVID-19 pandemic) to answer the following questions:

- When did young people reach out to Crisis Text Line for support? Did this change over time during the pandemic?
- What were the greatest stressors young people faced before the pandemic (2019) and during the first two years of COVID (2020 and 2021)? Did these stressors change over time? In what stressors did we notice significant changes during the first two years of COVID?
- What coping mechanisms did young people mention were helpful in 2019, 2020, and 2021? Did the types of coping mechanisms that youth discussed with Crisis Text Line change over time during the pandemic?

Data sets and sample

The service provided by Crisis Text Line is simple and straightforward to access, as it doesn't require any personally identifiable information to use the service – the only personal data Crisis Text Line automatically collects is a texter's cell phone number or URL (if connecting via chat). Texters decide whether and what additional information they want to share with Crisis Text Line[8]. If the texter agrees to use its service, Crisis Text Line keeps the transcript of the conversation between the texter and vCC to analyze for learning and program/service improvement. Text conversations are anonymized and saved on Crisis Text Line's secure systems for learning and program improvement, though texters can request to have their transcripts deleted by texting the word "DELETE" after a conversation. In this report, we did not include conversations where the texter disengaged after starting a conversation, if the texter was simply testing the service, or if the conversation was marked as being a prank by the vCC.

After each conversation, texters are asked to complete a voluntary texter post-conversation survey (Appendix A), which asks questions about the texters' emotional state, what the texter found helpful in the conversation, and demographic information (such as age range, question 9 in Appendix A). The post-conversation survey is completed after about 21% of all conversations, and this enables us to identify conversations with youth in our sample. This report includes analyses of conversation data and voluntary texter post-conversation survey data from a total of 289,022 conversations with selfidentified youth age 17 and under between 2019 and 2021.

In addition to the texter survey, vCCs fill out a separate survey (Appendix B) at the end of each conversation in which they tag key crisis issues discussed in the conversation (for example: depression, loneliness, or stress/anxiety). The vCC survey is completed after 95% of conversations, and offers rich information to help understand the multitude of struggles that texters were coping with – often concurrently – when they reached out to Crisis Text Line for support.

[8] See Crisis Text Line's Terms of Service and Privacy Policy

To answer research question 1 (when youth reached out to Crisis Text Line) and research question 2 (stressors mentioned by youth), we examined conversation data from the 21% of conversations where texters shared their age from 2019-2021. This includes a total of 289,022 conversations between 2019 and 2021 wherein the texter self-identified as being 17 years old or younger. A table of self-identified texter demographics from the 289,022 conversations in 2019, 2020, and 2021 can be found in Appendix C.

To explore research question 3 (coping mechanisms) in greater depth, we developed a machine learning (ML) model to augment our dataset in order to identify conversations with young people where we did not have their self-identified age information[9]. If a texter did not complete the voluntary post-conversation texter survey (or otherwise disclose their age), Crisis Text Line does not know how old the texter was at the time of the conversation. A ML model was thus developed to predict texters aged 17 and under among the nearly 4 million conversations that Crisis Text Line had between 2019 and 2021 (including conversations that were missing post-conversation texter survey responses, see Table 1).

Our ML model analyzed language nuances within conversations where texters completed the survey (which includes self-identified age range) in order to predict texters aged 17 and younger across all conversations during 2019-2022. Our ML model classified young people with 85% accuracy. Thus, to explore the different types of coping mechanisms used by youth in 2019, 2020, and 2021, we used our augmented dataset[10] (ML model) from all engaged conversations during this timeframe.

Table 1: Number of total conversations, ML model predicted youth conversations, and self-identified youth conversations by year

Sample sizes	2019	2020	2021	Total
Total # of conversations (with all texters)	1,205,104	1,439,939	1,299,233	3,944,276
Total # of conversations that the ML model predicted were with young people aged 17 years or younger	304,625	401,628	293,369	999,622
Total # of conversations where the texter self-identified as being 17 years or younger in the optional post-conversation texter survey	95,567	101,635	91,820	289,022

Data analysis

For research question #1, we analyzed data from the 289,022 conversations in which the texter responded to the post-conversation survey and self-identified as 17 years old or younger between 2019 and 2021. The time of day is automatically collected (in UTC) for every conversation. We used conversation timestamps to collect what time the conversation began in UTC, and we used area codes to estimate what time the conversation started in the texters' time zones.

[9] A detailed description of our ML model methodology is available here

[10] We use the term 'augmented dataset' to refer to the dataset from our ML model that predicted 999,622 conversations were with youth from 2019-2021

Crisis Text Line followed multiple steps to analyze the conversation data to gain insights into the greatest stressors youth faced between 2019 and 2021. First, vCCs completed a post-conversation survey in which they tagged key crisis issues or stressors that texters discussed in their text conversation (see Appendix B for the vCC post-conversation survey). Each issue was tagged by the vCC if the issue was mentioned during the conversation as a stressor; issue tags were tagged once per conversation, and conversations could have multiple, co-ocurring issue tags (see Appendix D for a list of the 19 issue tags with definitions).

To answer research question #2, we included data from conversations where the texter completed the post-conversation survey and self-identified as a youth (n=289,022 conversations with youth). We counted the number of times each issue tag was coded (thus the number of youth conversations that dealt with each issue), and we examined frequencies over time and by sub-groups.

To conduct an initial exploration of if/how stressors with significant change varied by subgroup, we ran t-tests to examine differences in the average number of conversations across all three years combined (2019-2022). We used responses from three demographic categories from our texter survey to compare differences in gender (three sub-groups of girl, boy, and other gender); racial and ethnic identity (seven sub-groups of Asian/Asian American, Black/African American, Latino/Latina/Latinx/ Latine/Hispanic, Middle Eastern/North African/Arab, Native American/Native Alaskan/Indigenous, Native Hawaiian/Pacific Islander, and White); and age (three sub-groups of 10 and younger, 11-13 years old, and 14-17 years old).

In addition to tagging the issues discussed during the conversation, the vCC post-conversation survey also asks vCCs to free-write, where applicable, the different coping mechanisms that texters mentioned using in the past (or could use in the future) to help them feel better (see Appendix B). To analyze these coping mechanisms, the ML model was used to predict conversations with youth out of the 3,944,276 total conversations between 2019 and 2021. Then, looking at only the conversations with predicted youth (999,622 total predicted youth conversations), we cleaned the coping mechanisms mentioned in the vCC post-conversation survey by removing punctuation and stop words (like “and”, “so”, “the”, etc.), making all words lower case, stemming words, and consolidating common phrases (e.g., “listening to music” became “listenmusic”, and “talk to friends” became “talkfriends”).

Then we used “Counter” in Python – a method of analyzing free-flow natural language – to count the number of occurrences of each word or phrase. We grouped words according to themes (e.g., “listen to music”, “singing”, “playing music”, and “playing guitar” were added together to create the theme “Music”; see Appendix E, Table 10 for the list of themes and words grouped under each theme). We analyzed how many youth conversations included each coping mechanism in each year (or the percent of total youth conversations) and significant changes in percentages over time. We also consulted with select vCCs, members of our clinical team, and internal and external experts as we analyzed and interpreted the results to shed light on what makes young people feel better.

Key Findings

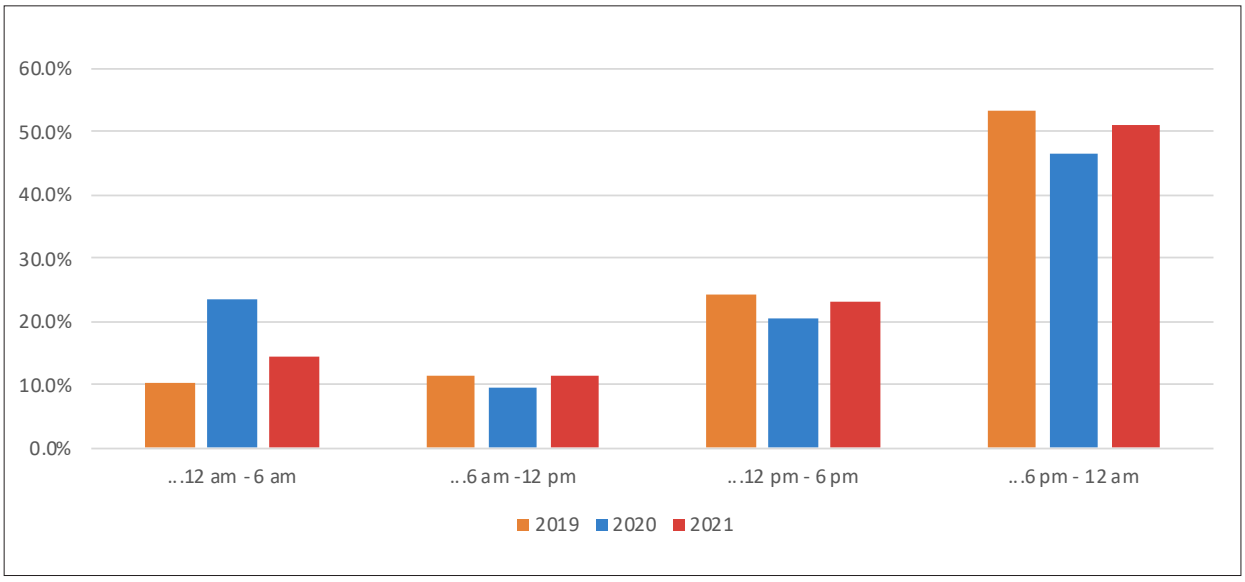
1. When did youth reach out to Crisis Text Line for support? Did this change over the course of the pandemic?

Finding 1: In 2020, conversations with youth more than doubled between 12am – 6am (compared to 2019), suggesting that more young people reaching out to Crisis Text Line might have experienced disrupted sleep patterns during the first year of the pandemic. The percentage of youth reaching out to Crisis Text Line at night returned to pre-pandemic levels in 2021.

In 2019, over half of all Crisis Text Line conversations with self-identified youth were initiated between 6pm and 12am, while 10% were initiated between 12am and 6am (see Figure 1 below and Appendix E, Table 6 for data details). During the first year of the pandemic, we saw that the number of conversations being initiated with Crisis Text Line between the hours of midnight and 6am by this demographic more than doubled. Our findings are supported by other research[11] suggesting that youths' disrupted sleep patterns during the first year of the pandemic may have contributed to worse mental health outcomes. The following quote, from a young texter, describing their sleeping struggles in mid-2020 sheds light on this issue: "I haven't been able to sleep. I feel tired, and keep hoping for a break from all the bad news ."[12]

We also saw that youth reached out more during the night in moments of crisis in 2020. Interestingly, in 2021 we saw that this trend reverted toward pre-pandemic hours, which could have been due to young people returning to school and having a more structured routine.

Figure 1: Average start time of youth conversations by year, adjusted for time zones (total n = 289,022)



[11] Bruni, Malorgio, Doria, Finotti, Spruyt, Melegari, Villa, & Ferri (2022); Cellini, Di Giorgio, Mioni, & Di Riso (2021); Chaturvedi, Vishwakarma, & Singh (2021)

[12] All quoted texts in this report have been paraphrased and anonymized to protect the privacy of our texters.

2. What were the greatest stressors mentioned by youth before the pandemic (2019) and during the first two years of COVID? How did these stressors change over time?

Finding 2: Depression/sadness, stress/anxiety, relationships, suicide, and isolation were the top five most commonly mentioned issues by youth both pre-pandemic (2019), as well as during the first two years of COVID.

After each conversation, vCCs are asked to complete a post-conversation survey and indicate what issues were mentioned by texters (see Appendix D). It is important to remember that issues are often co-occurring among people in crisis. In 2019, depression and sadness were mentioned the most often as the greatest stressors among youth (mentioned in 40.4% of conversations in 2019), with relationships mentioned second most often (38.3%), and stress and anxiety as the third (33.5%, see Table 2).

After the start of the pandemic in 2020, depression and sadness remained the top stressor (38.4%), while both stress/anxiety and relationship issues were mentioned in 35.0% and 34.7% of conversations respectively. In 2021, depression/sadness (36.1%) and stress/anxiety (35.8%) were the top stressors mentioned by youth, with relationships as third (34.8%). It is important to note that, on average, the top five stressors remained the same both before and during the pandemic.

Table 2: Number of youth conversations that included each stressor by year

Top stressors mentioned by youth (may be co-occurring)	2019 (total n=95,567)		2020 (total n=101,635)		2021 (total n=91,820)	
	# of youth versations that discussed the stressor	% of total youth conversations	% of total youth conversations	% of total youth conversations	# of youth conversations that discussed the stressor	% of total youth conversations
Depression and sadness	38,639	40.4%	39,047	38.4%	33,181	36.1%
Stress and anxiety	31,995	33.5%	35,561	35.0%	32,864	35.8%
Relationships	36,631	38.3%	35,305	34.7%	31,920	34.8%
Suicide	31,955	33.4%	28,509	28.1%	27,342	29.8%
Isolation	20,609	21.6%	22,763	22.4%	19,633	21.4%

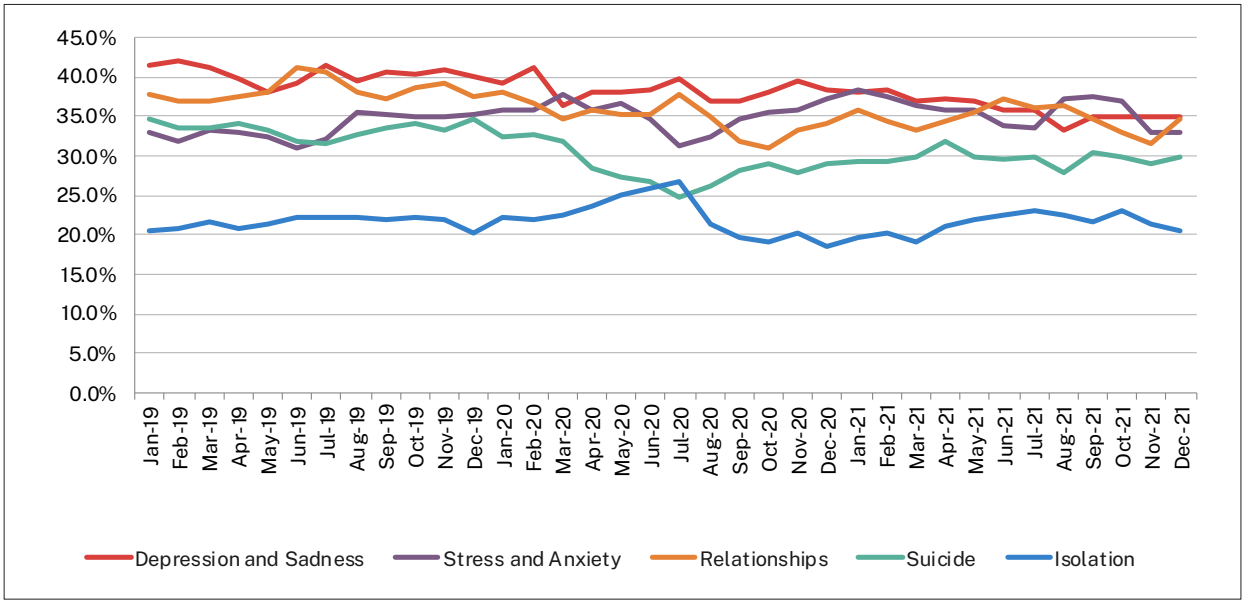
When examining changes by month, notable patterns emerge in the top stressors mentioned by youth (see Figure 2 and Appendix E, Table 7 for data details). Conversations tagged for stress and anxiety were lowest in June of 2019 (31.0% of conversations) and peaked in January of 2021 (mentioned in 38.4% of conversations).

The pandemic created "traumatic stressors that have the potential to further erode students' mental well-being"

Further qualitative and contextual analysis is needed to understand why there was a spike in youth conversations related to stress and anxiety in January 2021 (e.g., did youth feel anxiety related to the Jan 6th insurrection? Was it post-holiday stress or anxiety about returning to in-person learning?).

Interestingly, conversations about suicide decreased from a high of 34.8% of conversations in December 2019 (pre-pandemic) to a low of 24.9% of conversations in July 2020. Further analysis is needed to understand possible reasons behind these data trends. Perhaps unsurprisingly, conversations that included isolation as a major stressor peaked in July 2020 (26.8% of youth conversations), and decreased to 18.4% in December 2020, possibly because many youth returned to in-person school, after-school activities/clubs, and in-person socializing or saw family and friends for holiday visits.

Figure 2: Top five youth stressors by month (total n = 289,022)



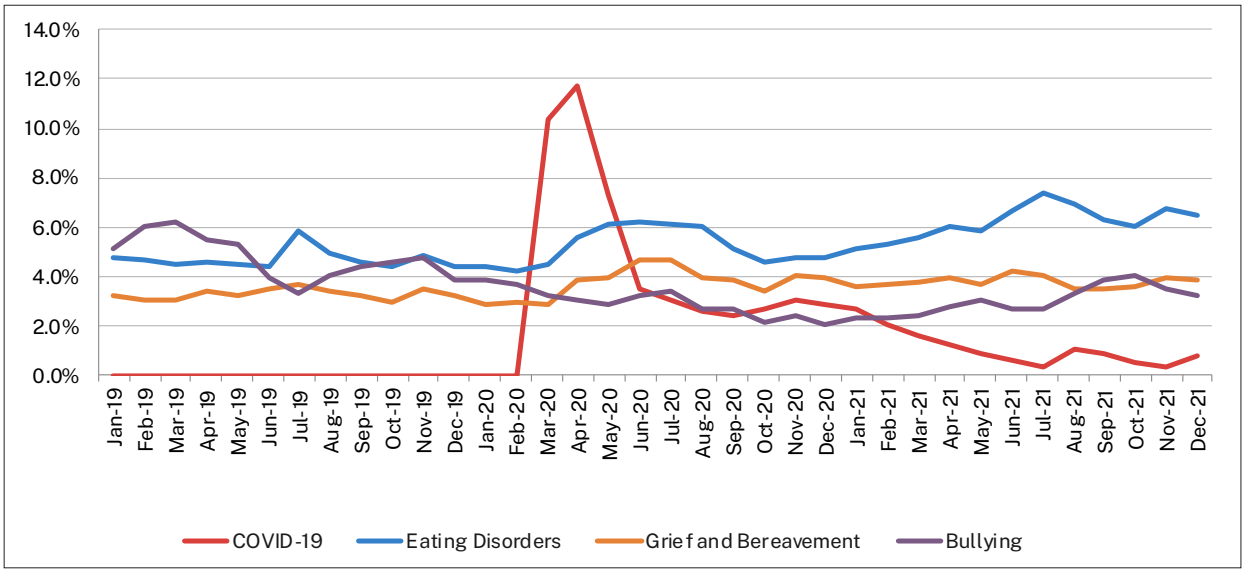
In addition to the top five aforementioned stressors, mentions of eating disorders[13] and body issues[14], feelings of grief and bereavement, and bullying all remained persistent issues in conversations with self-identified youth aged 17 and under throughout 2019 to 2021 (see Figure 3 and Appendix E, Table 8). In March 2019, conversations about bullying peaked at 6.2%, decreased to 2.1% in December 2020, and then increased to 4.1% in October 2021.

While bullying decreased when most youth were likely in distance learning, the percentage of conversations mentioning bullying started to increase again in 2021, possibly suggesting that bullying associated with in-person schooling is an issue that can have adverse effects on young people's mental health.

[13] Examples of eating disorders include changing eating habits, heavily restricting or binging food, laxative abuse, or participating in excessive exercise.

[14] Examples of body issues include being hyper-focused on one's body appearance, size, and shape, often holding their body to unrealistic ideals.

Figure 3: Other persistent youth stressors by month (total n = 289,022).



More research is needed to understand how stressors may be correlated with one another, such as bullying and stress/anxiety. Young people also mentioned COVID-19 as a stressor starting in March 2020, with the largest percentage of conversations in April 2020 (11.8%), and the lowest percentage of youth conversations since COVID emerged in July 2021 (0.4%).

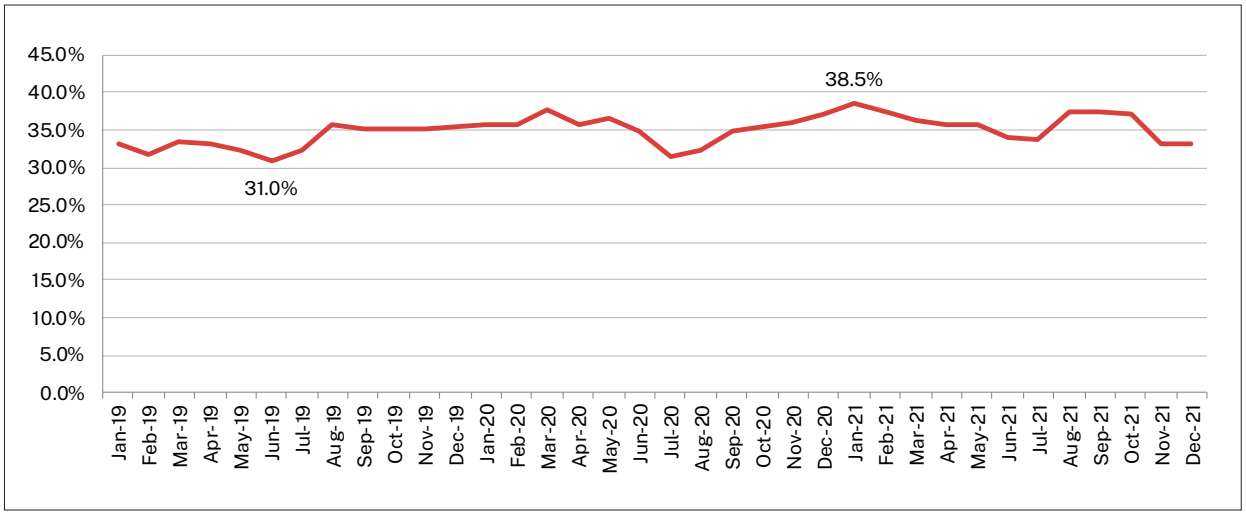
2a) In what stressors among youth did we notice significant changes during the first two years of COVID (2019-2021)?

Finding 3: We noticed significant changes in youth conversations about stress/anxiety, Isolation and loneliness, grief and bereavement, and eating disorders and body issues from 2019-2021.

Stress and anxiety: Significant changes were found in youth conversations bout stress and anxiety, with the topic comprising 31.0% of conversations in June 2019 before reaching a high of 38.5% in January 2021 and staying at or above 33.0% through 2021 (see Figure 4 below and Tables 7 and 10 in Appendix E for data details). The dips in summer months are part of a repeated seasonal trend, but we noticed an increase in summer 2021 compared to summer 2020 and summer 2019. Young people discussed overthinking, being online, and exhaustion as sources of stress and anxiety.

When looking at between-group differences by demographics, we found that the percentage of conversations discussing stress and anxiety varied slightly by race/ethnicity (see Table 8 in Appendix E). Asian- and Middle Eastern-identifying youth discussed stress and anxiety in a slightly greater percentage of conversations (39.3% and 37.5%, respectively) compared to other racial identities (which ranged from 32.3% to 35.7%). In addition, texters between 14-17 years old had a slightly greater percentage of conversations about stress and anxiety (32.3%) than those ages 13 and younger (28.3%). Additional analyses beyond the scope of this report are needed to further explore the statistical significance of differences and the meaning behind these results.

Figure 4: Youth conversations about stress and anxiety by month (2019-2021) (total n = 289,022)

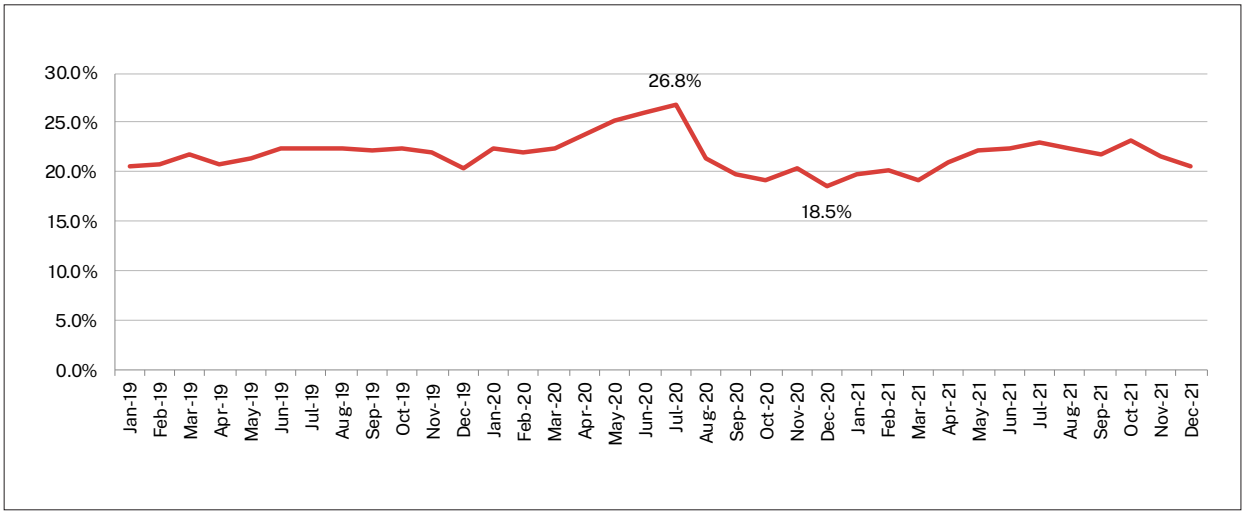


Isolation and loneliness: Conversations with young people at Crisis Text Line about isolation and loneliness peaked in July 2020 (26.8% of all conversations with youth) and decreased in Dec 2020 (18.5%) back to pre-pandemic levels (see Figure 5). We noticed that some youth reported feeling increasingly isolated and lonely during the first five months of the pandemic (March – July 2020). One youth mentioned, "I only have two friends; it's hard and I feel so lonely".

"I only have two friends; it's hard and I feel so lonely".

Crisis Text Line then had fewer conversations about isolation and loneliness in subsequent months, perhaps because youth felt more comfortable connecting with others virtually, or possibly because youth returned to more in-person socializing and reunited with friends and family.

Figure 5: Youth conversations about isolation and loneliness by month (2019-2022) (total n = 289,022)



Examining differences by demographic sub-groups, we found that the percentage of conversations with youth varied slightly between races/ethnicities (see Table 8 in Appendix E). For example Black, Middle Eastern and Native Hawaiian/ Pacific Islander-identifying texters had a slightly greater percentage of conversations with Crisis Text Line about isolation and loneliness (ranging from 23.0% to 23.8%) than other racial identities (ranging from 21.2% to 22.6%) during the period of this study, however, differences detected do not appear to be significant. Similarly, it appears that there was a slightly greater percentage of conversations with youth texters identifying as boys/ men about isolation and loneliness (23.8%) than those identifying as girls/ women (22.1%). Additional analyses of conversation data beyond the scope of this study are needed to further examine corresponding reasons for these differences.

Grief and bereavement: One of the fastest-changing issues in conversations with youth during the pandemic were feelings of grief and bereavement. In March of 2020, 2.9% of youth conversations mentioned grief and bereavement. This increased to 4.7% of conversations in June and July 2020 (and was mentioned in 3.5%-4.1% of conversations throughout 2020-2021, see Figure 6 below and Table 9 in Appendix E). While the increase from March 2020 to July 2020 may not be directly tied to the pandemic, it has been noted that drug overdoses among youth aged 14 to 18 years-old more than doubled in 2020[15], and it has been found that adolescent suicide rates increased in some states during the pandemic[16].

As more than 140,000 children in the United States have lost caretakers to COVID-19 as of June 2021[17], researchers have noted hotspots of youth bereavement in certain regions around the U.S.[18], suggesting targeted interventions and continued grief counseling to support young people may be needed.

As with stress/anxiety and isolation/loneliness, we detected potential group differences by race/ethnicity in the percentage of conversations about grief and bereavement (see Table 8 in Appendix E). Our data suggest that young people who identified as Native American/Alaska Native discussed grief and bereavement in a larger percentage of conversations (4.9%) than other racial identities (ranging from 2.8% to 4.1%), and other research[19] has noted that Native American/Alaska Native people experienced greater rates of COVID-19 deaths when adjusting for differences in age by race/ethnicity, suggesting this may be a trend that is important to monitor. Further analyses beyond the scope of this report are needed to explore statistical significance and elucidate reasons for these potential group differences.

"Recently, one of my old friends died by suicide. I feel so bad, I feel like I should've been there to help them."

[15] Friedman, Godvin, Shover, Gone, Hansen, & Schriger (2022)

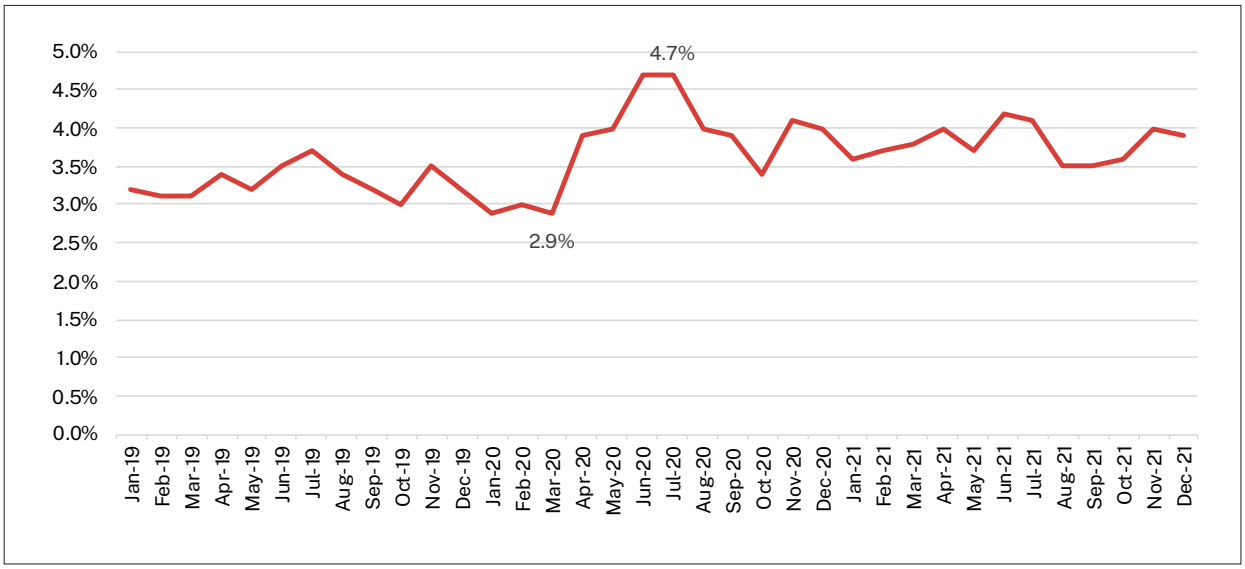
[16] Rogers (April 25, 2022)

[17] Hillis, Blenkinsop, Villaveces, Annor, Liburd, Massetti, Demissie, Mercy, Nelson, Cluver, Flaxman, Sherr, Donnelly, Ratmann, & Unwin (2021)

[18] Harden, Runkle, Weiser, Green, & Sugg (2021)

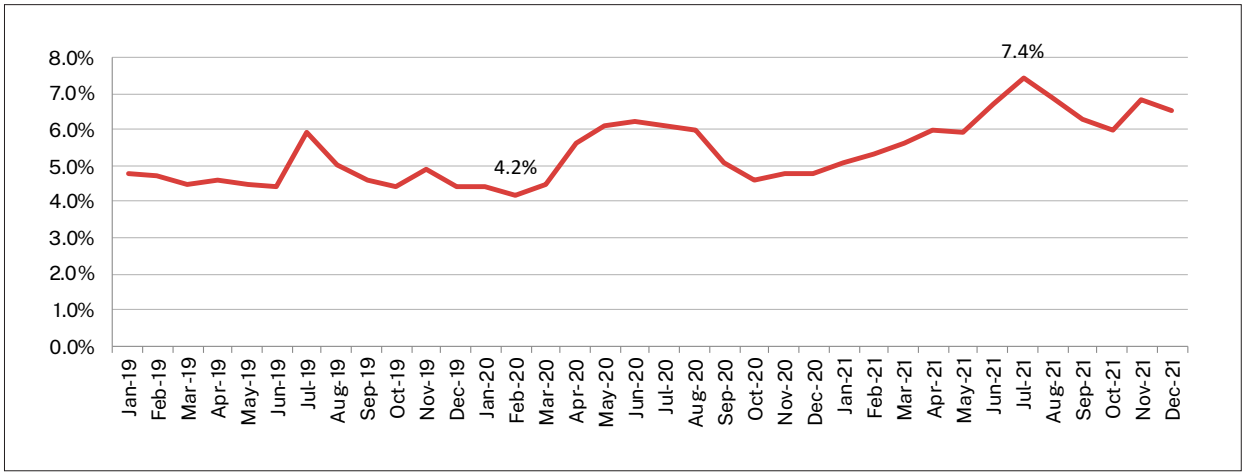
[19] Hill & Artiga, 2022

Figure 6: Youth conversations about grief and bereavement by month (2019-2021) (total n = 289,022)



Eating disorders and body image issues: Youth conversations discussing eating disorders and body image issues rose from 4.2% of conversations in Feb 2020 to a high of 7.4% of conversations in July 2021 (see Figure 7). This mirrors other research indicating that eating disorder-related emergency room admissions for youth and young adults aged 10-23 more than doubled during the first 12 months of the COVID-19 pandemic (April 1, 2020 – March 31, 2021) compared to the same time frame in the previous year[20].

Figure 7: Youth conversations about eating disorders or body issues by month (2019-2021) (total n = 289,022)



Young texters disclosed feeling a loss of control and autonomy during the pandemic, as they could not control where or what they ate, or with whom they ate. As eating disorders have been linked to high achievement and perfectionism[21], some youth who normally would have focused their energy on school or extracurriculars may have used their extra time during lockdown to focus on their physical health as a way to feel productive, accomplished, or to cope with anxiety[22].

[20] Otto, Jary, Sturza, Miller, Prohaska, Bravender, & Van Huysse, 2021

[21] Schilder, Sternheim, Aarts, van Elburg, & Danner, 2021

[22] Damour, April 28, 2021

Other research[23] has suggested that increased media use may be associated with increased risk for eating disorders, as young people may be exposed to dieting, thin-body idealism, food advertising, and video conferencing may increase preoccupation with one's appearance. Adolescents with eating disorders may have been (and may ontinue to be) negatively impacted by limited in-person care, as assessments may require weight, other vital measures, physical exams, or other lab work, and confidentiality may be limited for youth in virtual settings[24].

Our analyses of group differences detected that the percentage of conversations discussing eating disorders or body image issues among girls/women was more than twice that of boys/men (5.8% compared with 2.2%) (see Table 8 in Appendix E). The CDC has reported[25] complementary findings that the proportion of emergency room visits with eating disorders doubled among adolescent females in 2020 and 2021. In addition, our analyses suggest that youth texters identifying as Middle Eastern had the highest percentage of conversations about eating disorders and body image issues (6.8%) compared with other races (ranging from 4.6% to 5.4%), and the youngest age group of texters with Crisis Text Line (age 13 and younger) had more conversations about eating disorders and body image issues (5.5%) compared with those aged 14 to 17 years old (4.7%). Additional analyses are needed to assess the statistical significance and meaningfulness in these emerging trends, and to delve deeper into potential reasons for these possible group differences.

[23] Rodgers, Lombardo, Cerolini, Framko, Omori, Fuller-Tyszkiewicz, Linardon, Courtet, & Guillaume, 2020

[24] Otto, Jary, Sturza, Miller, Prohaska, Bravender, & Van Huysse, 2021

[25] Radhakrishnan et al., Feb 25, 2022

3. What coping mechanisms did youth mention as being helpful in 2019, 2020, and 2021? How did mentions of coping mechanisms change over the course of the pandemic?

At Crisis Text Line, vCCs are trained to support texters by helping them identify coping mechanisms that have worked for the texter in the past. The vCCs may ask a texter how they have been coping with their crises thus far, and if they could brainstorm some ways that may help them cope in the future. At the end of each conversation, where applicable, vCCs are asked to document what coping skills or safety plans were agreed to by the texter. Then vCCs free-write the coping mechanisms in the post-conversation survey (see Appendix D). We analyzed the specific words that vCCs used to describe the coping mechanisms that were agreed upon by the texter (a list of the top coping mechanisms and the specific words which are included in each mechanism is included in Appendix E, Table 11). These data provide real-life examples of ways young people have coped in the past, and methods texters have to help them cope with stressors in the future, in their own words. We aim to empower texters and others experiencing mental health-related stressors to reflect and rely on the strengths they already possess, and to identify new mechanisms that they can try to help them feel better in times of crises.

To analyze a larger sample of coping mechanisms mentioned by youth, we augmented our dataset using ML to predict conversations with young people where we did not have their self-identified age (i.e., in conversations where the texter survey was not completed). Using a ML algorithm enabled us to analyze the coping mechanisms mentioned in almost one million conversations with youth (999,619 predicted youth conversations) from 2019 to 2021.

Top coping mechanisms

Finding 4: Music was the most frequently mentioned coping mechanism across all years and across both the self-identified youth and predicted youth datasets.

Finding 5: The same top 12 coping mechanisms were mentioned in conversations with youth in both the self-identified and augmented datasets, suggesting these strategies felt promising for youth.

Music was mentioned most frequently as a coping mechanism that either helped young people in the past, or that they felt would help them in the future (see summary in Table 3 below). In both the self-identified dataset and the augmented dataset, over 10% of conversations with youth mentioned music as a coping mechanism (see Appendix E, Table 12 for data details). Youth described how listening to music, singing, and playing music (on instruments such as guitars and pianos) helped them feel calm and deal with stress.

"Thank you for giving me the energy I needed to get up today. I like listening to music a lot, and after this conversation, I will listen to some songs I like."

In addition to music, young people suggested a variety of other strategies that either helped them deal with stress in the past, or felt were a promising strategy they were willing to try in the future. For instance, they also mentioned reading or writing (including journaling, poetry, and letters), sleeping or taking a bath or shower, and talking to friends (including romantic partners) as effective calming techniques.

Following music, these three coping mechanisms were mentioned next in a larger percentage of conversations with young people across all years and both datasets, suggesting that young people felt these coping mechanisms were helpful or could be helpful in the future.

Table 3: Top 12 coping mechanisms mentioned in youth conversations by year and dataset

Frequency rank	Self-identified youth dataset (total n = 289,022)			Predicted youth ML dataset (total n = 999,619)		
	2019	2020	2021	2019	2020	2021
1	Music	Music	Music	Music	Music	Music
2	Read / write	Sleep / bathe	Sleep / bathe	Talk to friends	Talk to friends	Sleep / bathe
3	Sleep / bathe	Art	Art	Read / write	Sleep / bathe	Talk to friends
4	Art	Talk to friends	Read / write	Sleep / bathe	Read / write	Read / write
5	Talk to friends	Read / write	Talk to friends	Art	Art	Exercising
6	Watch tv / videos	Watch tv / videos	Watch tv / videos	Connect with family	Connect with family	Art
7	Connect with family	Connect with family	Access therapy / doctor	Watch tv / videos	Watch tv / videos	Watch tv / videos
8	Access therapy / doctor	Exercising	Connect with family	Access therapy / doctor	Exercising	Connect with family
9	Exercising	Access therapy / doctor	Exercising	Exercising	Access therapy / doctor	Access therapy / doctor
10	School	Meditation	Meditation	School	Meditation	Meditation
11	Meditation	Video games	School	Meditation	Video games	Video games
12	Video games	School	Video games	Video games	School	School

Finding 6: The percent of youth conversations that mentioned resting and bathing/showering, watching TV /videos, playing video games, and exercising as a coping mechanism increased over time.

Four of the top 12 coping mechanisms increased over time: resting or bathing/showering, watching TV and videos, playing video games, and exercising[26] (see Figure 8 below). These four coping mechanisms were mentioned in a greater percentage of conversations from 2019-2020, suggesting that youth drew on these to help in times of crisis (or felt these would be helpful strategies to try in the future). All of these coping mechanisms (except for exercising among the self-identified sample) were again mentioned in a greater percentage of youth conversations from 2020-2021, suggesting that youth continued to feel these strategies were (or would be) beneficial.

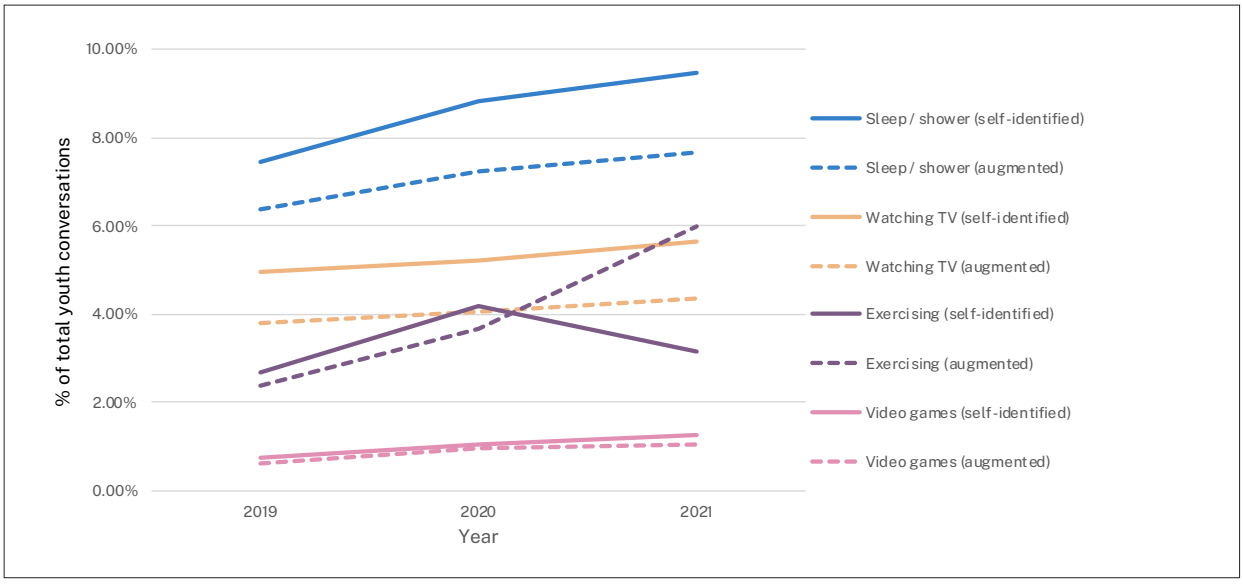
Young people were able to rest, nap, sleep, and shower/bathe at possibly more convenient times during lockdown, and potentially saw value in resting during times of stress in 2021. They also leaned into watching TV and videos, specifically mentioning watching anime, YouTube, Netflix, and content on TikTok to feel better.

"I like to play basketball or play video games when I want to distract myself"

In addition, they found solace in exercise during the first year of the pandemic, as they mentioned taking walks, unning, dancing, doing yoga, and playing basketball or volleyball to deal with stress. Playing video games as a strategy was also mentioned in a greater percentage of conversations over time for both datasets, as youth described feeling better when connecting with others online playing collaborative, world-building games such as Roblox, Animal Crossing, and Minecraft.

"When I'm feeling lonely, I like making friends online on apps like Minecraft or Roblox....or any other video game where I can find others to talk to."

Figure 8: Percent of youth conversations that mentioned sleep, watching TV, exercising, and playing video games over time (self-identified youth total n = 289,022; ML augmented n = 999,916)

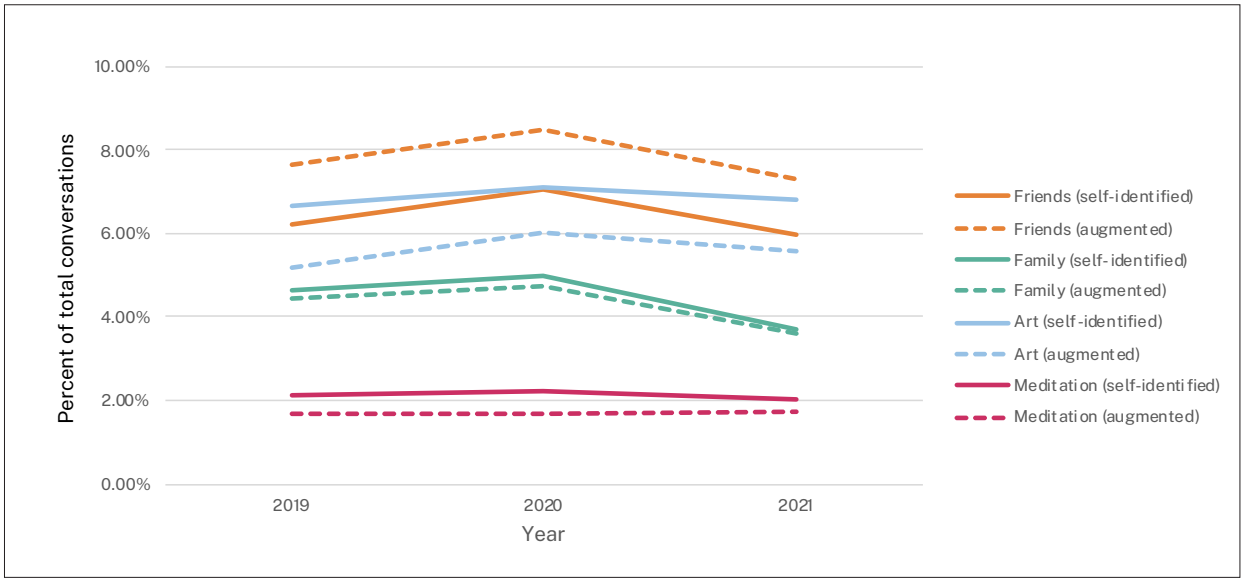


[26] Exercising for the self-identified sample increased from 2019-2020 but decreased from 2020-2021

Finding 7: Talking with friends and family, engaging in art, and meditation or breathing exercises were salient coping mechanisms in 2020 after the onset of the pandemic, but were mentioned less often in 2021.

Looking at coping mechanisms over time revealed interesting trends. In 2020, more conversations with youth mentioned coping mechanisms like talking with friends and family (in particular mothers), when compared to 2019, suggesting that youth leaned on their family and friends for support during the first year of the pandemic (see Figure 9). In addition, a greater percentage of youth conversations mentioned art (such as drawing, painting, and coloring), and meditation (such as calming or breathing exercises) in 2020 compared to 2019[27]. These percentages then decreased in 2021, suggesting that youth found other ways to cope (for sample sizes and number of conversations where each coping mechanism was mentioned, please see Appendix E, Table 12).

Figure 9: Percent of youth conversations that mentioned friends, family, art, and meditation over time (self identified youth total n = 289,022; ML augmented n = 999,619)



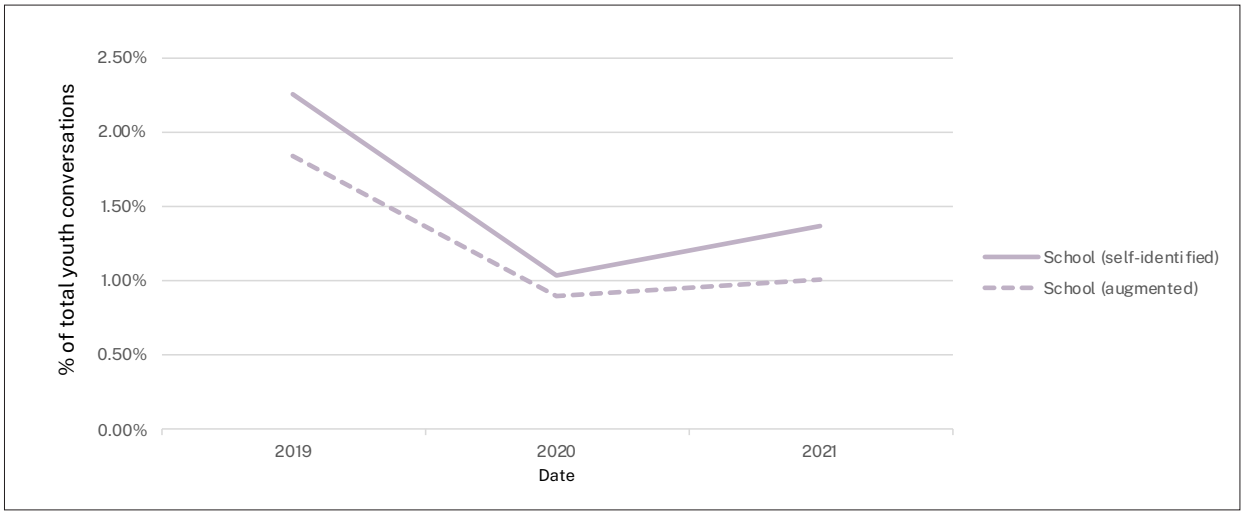
Finding 8: A smaller percentage of conversations with youth mentioned school as a coping mechanism from 2019-2020.

Perhaps unsurprisingly, fewer conversations with youth discussed school-related strategies (e.g., talking with teachers, talking about school, and doing homework) as a coping mechanism from 2019-2020 (see Figure 10). As most schools moved to distance learning in 2020, young people felt less able to connect and draw on school as one way to deal with stressors. Yet, school as a coping mechanism was mentioned in more conversations in 2021 when compared to 2020, suggesting youth were able to (re) connect and find comfort in conversations about school and doing homework in 2021.

"My sister just tested positive for COVID...I am so low and feeling anxious. I miss my school counselor so much."

[27] This pattern held except the percentage of conversations mentioning meditation from the augmented dataset was the same in 2019 and 2020

Figure 10: Percent of youth conversations that mentioned school-related strategies over time (self-identified youth total n = 289,022; ML augmented n = 999,619)

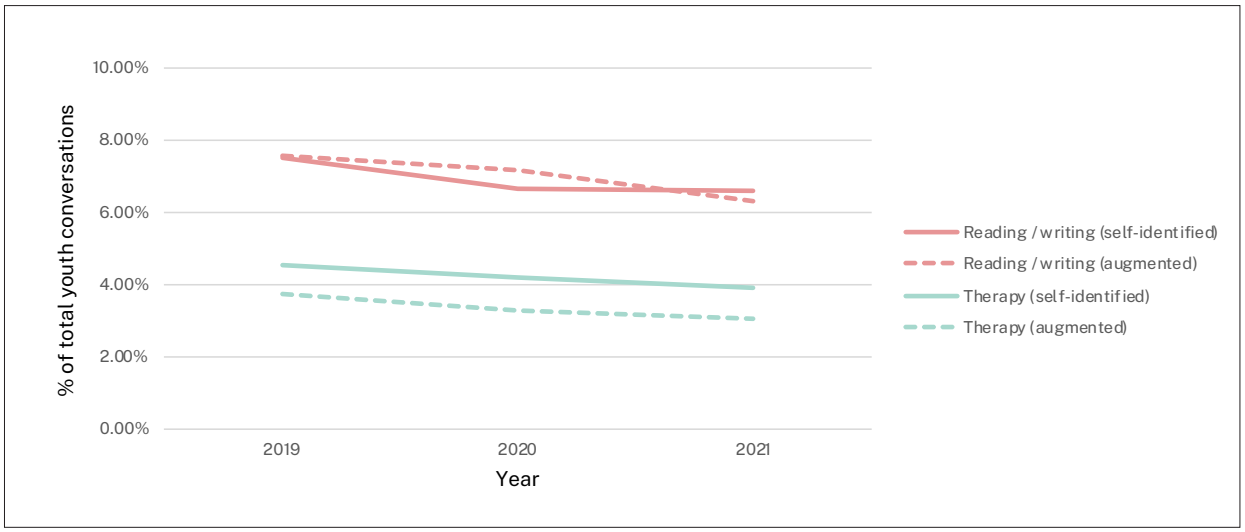


Finding 9: The percent of youth conversations that mentioned reading and writing, and accessing therapy, decreased over time.

"I don't really watch TV, but reading makes me feel good. I have some novels and comics that I could read again."

A smaller percentage of conversations with youth discussed reading, writing, and therapy as coping mechanisms from 2019-2021 (see Figure 11). One youth texted, "I don't really watch TV, but reading makes me feel good. I have some novels and comics that I could read again." as some therapy possibly moved online during the first months of the pandemic, youth may have had less access due to technological limitations, a lack of confidential space to hold sessions, and therapists may have been overwhelmed with appointments or unable to take new clients. Additional research and analyses are needed to more deeply understand why reading and writing, and accessing therapy, were mentioned in fewer conversations with youth over time.

Figure 11: Percent of youth conversations that mentioned reading/writing and therapy over time (self-identified youth total n = 289,022; ML augmented n = 999,619)



Thus, young people drew on a variety of coping mechanisms both before and after the pandemic. While the proportion of Crisis Text Line conversations that discussed different types of coping mechanisms varied from 2019-2021, these patterns provide important insights into ways that may help youth now and in the future.

Limitations

There are a number of important limitations to this study. First, our texters are not representative of the U.S. population. In addition, since only 289,022 out of 999,622 predicted youth texters completed a post-conversation survey between 2019 and 2021, this population may not be representative of all of the youth texters who contact Crisis Text Line. While we utilized a ML model to estimate the total number of youth texters among all conversations beyond those who self-identified to understand frequency of coping mechanisms, our model was accurate 85% of the time. Thus, some coping mechanisms mentioned by young people might be excluded and some representation of coping mechanisms by texters age 18 and older may be included. A further limitation is that our study relies on area codes to estimate the time zones of texters, which does not account for texter mobility if they move from one time zone to another with the same mobile phone number (texter area code is estimated to reflect the current state of residence approximately 70% of the time in this study).

Additionally, while vCCs are provided with definitions for each issue tag, subjectivity between vCCs in identifying and tagging issue tags and coping mechanisms can introduce measurement errors and inconsistencies. Some vCCs may have used different words to describe similar coping mechanisms, so our dataset may be undercounting some coping mechanisms. Our analyses of coping mechanisms included the most common 200 words/clusters and stems of words (such as “watch movie”, “watch movies”, “watching movies”, etc.). Yet, vCCs may have used different words to describe similar mechanisms (such as naming specific movies), which may not have been included in the first 200 coping mechanisms, so we also may be undercounting the magnitude of conversations that mentioned a specific coping mechanism. Moreover, the coping mechanisms represented in this study were identified from conversations with texters themselves, and we make no claims as to whether these coping mechanisms may be clinically effective or beneficial for youth in crisis. Further research beyond the scope of this study would be needed to explore the coping mechanisms that young texters suggest might help them feel better from a clinical lens, as well as to examine co-occurrence of stressors.

More work is needed to explore group differences related to key issues and statistical significance of differences observed, for example stress and anxiety, isolation and loneliness, grief and bereavement, and eating disorders and body image issues as presented in Table 8 in Appendix E. Specifically, for between-group differences by demographic discussed throughout this study, we have initiated further analyses by category (race/ ethnicity, age, and so on) of each sub-group compared with each other sub-group separately, thus far yielding many t-tests that were statistically significant but not necessarily meaningful (e.g. Cohen’s D effect sizes were generally very small). Due to time constraints and the large number of sub-group combinations, discussion is excluded and tables are not appended related to these analyses, and more time will be needed beyond this report.

Additional analyses are also needed to further break down sub-groups (e.g., 'other gender identity' should be broken down further to explore differences among Agender, Gender fluid, Gender queer, Intersex, Non-binary, Trans, Trans Masculine, Trans Feminine, and Two Spirit). Additional non-parametric analyses may be needed in future research depending on sample sizes to explore additional group differences (such as Agender compared to Genderfluid) and the meaningfulness behind group differences. Additional qualitative analyses can help shed light onto the reasons behind potential group differences, to help make meaning of how and why such differences exist.

Despite these limitations, our dataset offers rich information about issues young people faced before and during the pandemic, and coping mechanisms that helped them feel better. Real stories from real youth in crisis might challenge preexisting assumptions some may have regarding the issues youth are facing today. Furthermore, hearing about the different and varied strategies that have helped youth cope in moments of crisis as shared by young people themselves may empower others to reach out for help, and may remind caregivers, teachers, and young people themselves of strategies they have within their reach to support youth in crisis. Lastly, these findings can help policymakers, school officials, and caregivers remove logistical and other barriers to coping mechanisms, so that youth are more able to access support when needed.

Discussion and Implications

How can we use these learnings to help support youth mental health this coming year?

Prior to the pandemic, the U.S. was experiencing a youth mental health crisis as adolescent emergency room visits, suicide attempts, and major depressive episodes rose sharply between 2007 and 2019. Mental health challenges facing young people were further exacerbated by COVID and the resulting disruptions to school and daily routines, limited in-person socialization, and, for some, grief associated with the loss of friends, family members, or caregivers. Yet, it is unclear how many young people in crisis have been (and currently are) able to access mental health services. Previous research[28] has found that only 23% of Crisis Text Line texters who responded to the post-conversation survey received help from a doctor or therapist, and over one-fourth (28%) reported they only received help from Crisis Text Line. Thus, it is imperative for young people, caregivers, educators, and policymakers to consider ways to support youth mental health.

In this study, we found that conversations between 12am – 6am with youth in crisis more than doubled from 2019 to 2020, suggesting youth faced mental health challenges and that disrupted their sleep during the first year of the pandemic. In addition, we found that the top five stressors for youth both before and during the pandemic were depression/sadness, stress/anxiety, relationships, suicide, and isolation. We saw significant changes in conversations with youth about stress and anxiety, isolation and loneliness, grief and bereavement, and eating disorders and body image issues between 2019 and 2021, suggesting these issues may need particular attention as we look to the coming year.

We also found that youth showed resilience and drew on a variety of coping mechanisms within their reach to help them feel better. Confronted with the growing youth mental health crisis, many young people demonstrated that they already have free, accessible tools at their fingertips to help them feel better in moments of pain. While music was mentioned the most in conversations, young people also discussed reading, writing, art, sleeping, bathing, and meditating to help them calm down. Talking with friends and family, accessing therapy, and exercising also helped relieve stress. Watching TV and videos, playing video games, and engaging with school-based supports were other common coping mechanisms mentioned by youth. While there were different patterns in our data, we found that these top 12 coping mechanisms remained the most frequently discussed by youth both in 2019 and during the pandemic (2020-2021). These findings suggest that there are strategies that can be utilized now to better support young people – without necessarily requiring additional resources and funding.

We also found that youth showed resilience and drew on a variety of coping mechanisms within their reach to help them feel better.

[28] Pisani, Gould, Gallo, Ertefaie, Kelberman, Harrington, Weller, & Green, 2022

This study has implications on actions within reach for multiple stakeholder groups concerned with improving mental health and crisis support for young people, from young people themselves to caregivers, relatives, educators, and policymakers working to protect and improve mental health outcomes for young people.

Young people: Consider simple activities that can be part of your daily life that you may notice help you feel better when you are stressed or sad. For example, finding ways to express yourself such as writing, reading, doing art, and playing or listening to music, and talking with friends or family were all top coping mechanisms for youth in 2019-2021. Take mental health breaks to rest, reset, and rejuvenate. Create or keep a list of coping mechanisms that work for you, and ask your friends what helps them cope with stressful feelings. Encourage yourself and your friends to refer back to your list and explore new ways of coping in times of crisis. Sometimes, you may need a little extra support, even after you use all of your coping mechanisms. In those moments, practice asking for help from a friend or trusted adult.

Caregivers and Relatives: Listen to the young people in your lives and try to support them in old and new ways. While some coping mechanisms preferred by youth may seem like a distraction (e.g., screen time) or an annoyance (e.g., listening to music), it may be helpful to take a step back and think about how these activities may be supporting the young person in coping with daily stressors. Consider creating spaces to listen and ask questions about what helps them manage their feelings in times of stress or crisis. Help young people in your life foster a sense of connection by providing opportunities for them to spend time with their friends or relatives in person or engage safely in online communities, like TikTok or gaming servers. Perhaps discuss therapy with them as an option for additional support. If therapy is inaccessible for your family, consider reaching out to your youth's school to explore what resources, if any, the school may be able to provide. If it appears they are struggling to identify ways to cope, offer a suggestion from the list we've shared based on what you know about them personally. Don't forget to take care of yourself and practice your preferred coping skills – this not only helps you, but provides a model for the young person/s in your life.

Educators: Keep a list of coping mechanisms at the ready in your school setting to help your students go from a high-stress moment to a sense of calm like practicing meditation or journaling. This may encourage your students to learn and practice self-regulation, empowering them to independently cope with some daily stressors. Carve out time and dedicated space for engaging in coping mechanisms throughout the school day. This is a great opportunity to listen and collaborate, as your students likely have their own ideas about what might help them feel calm throughout the school day. Young people who used our service, for instance, suggested a range of relaxation techniques and creative activities that helped them feel calm in moments of stress or crisis, like listening to soft and calming music, fidget toys, yoga balls, meditation, journaling, and creating different forms of art. It may feel like an unconventional or uncomfortable shift in routine at first, but work with other school staff to consider how you might be able to support your students' mental health by exploring new ways to incorporate these options into the classroom or common school spaces.

Policymakers: Consider ways that less-traditional resources like music, relaxation, creative expression, connecting with friends and family, and exercise can be elevated and prioritized in mental health supports for young people. Support ways for young people to engage in coping tools like art, meditation, and music through school and community programming. Help raise awareness at multiple levels of the low-cost, readily-available mechanisms that young people themselves shared through nearly a million conversations about things that helped them feel better in moments of crisis. Advocate for these supports to be equally accessible to youth across diverse communities and regions to help them thrive.

Conclusion

This study sheds light on the most pressing crises on the minds of young people when they reached out to Crisis Text Line for help during the COVID pandemic, and shares insights from their own perspectives into what helped them go from a high-stress moment to a sense of calm. In addition, it raises awareness of significant changes detected in certain issues that merit closer monitoring over the coming year as potential emerging trends of concern. Importantly, beyond shedding further light on the scope of the youth mental health crisis at hand, this study offers valuable insights to caregivers/relatives, educators, policymakers, and young people themselves of already-accessible tools within reach to help youth feel better in moments of pain, and improve their wellbeing and overall feelings of resilience.

While there are many limitations as noted within the study, and findings may not be generalizable to U.S. youth populations or the overall Crisis Text Line user population, this study can inform further research to explore youth crises and coping mechanisms across demographics, as well as leverage coping mechanisms that youth have shared to improve clinical outcomes. This study also has important implications for developing more robust ML models to increase generalizability. By developing an ML algorithm, we were able to begin to explore how patterns in coping mechanisms were similar and different for self-identified youth compared to young texters who chose not to share more information about themselves. In this study, we focused on predicting age but by controlling for additional demographic variables, we may learn more about which strategies are more effective for specific populations to advance equity and inclusion.

This study suggests new opportunities for future research to gain critical insights in real-time toward helping more people in crisis more effectively – while simultaneously offering immediate and actionable insights based on what hundreds of thousands of young people have shared about coping mechanisms that helped them find a sense of calm and feel better when they needed it most.

Appendix A: Texter post-conversation survey

Survey Privacy Policy:

You can skip questions.

1. Did you find this conversation helpful?

( ) Yes

( ) No

2. If yes, how helpful was it?

( ) 1 (slightly helpful)

( ) 2

( ) 3

( ) 4

( ) 5 (very helpful)

3. Would you like to share a note of gratitude with your Crisis Counselor? As volunteers, your words mean the world to them. The more you share how the conversation helped you, the more it will give your Crisis Counselor the energy to keep supporting people in crisis, day after day. (This note will be shown to your Crisis Counselor, but none of your other answers will be.)

4. What did your counselor say that you found helpful? (Use direct quotes if possible - that will help us better support texters like you!)

5. (If something written for #3 or 4) May we share your message -- with your name edited out -- with other existing Crisis Counselors or with the public (for example, to potential Crisis Counselors)? Your message may give counselors the energy to keep supporting people in crisis, day after day, and inspire others to join or support Crisis Text Line.

( ) Yes

( ) No

The next few questions ask about your age, gender, etc. Answer or skip, either is OK with us!

Why we ask these questions: We want to make sure we are reaching and providing a good experience across all populations, identities, races and ethnicities. We use anonymized responses to improve our service and to report to our partners and the public about who we serve.

6. What is your ZIP code?

7. How old are you?

( ) Prefer not to answer

( ) 10 or younger

( ) 11-13

( ) 14-17

( ) 18-21

( ) 22-24

( ) 25-34

( ) 35-44

( ) 45-54

( ) 55-64

( ) 65+

8. Gender. How do you identify? Please select all that apply.

[ ] Agender

[ ] Boy/Man

[ ] Genderfluid

[ ] Genderqueer

[ ] Girl/Woman

[ ] Intersex

[ ] Non-binary

[ ] Trans

[ ] Trans Masculine

[ ] Trans Feminine

[ ] Two Spirit

[ ] Prefer not to answer

[ ] Write in how you identify: _____

9. Sexual identity. How do you identify? Please select all that apply.

[ ] Asexual (Ace)

[ ] Aromantic (Aro)

[ ] Bisexual

[ ] Gay

[ ] Lesbian

[ ] Pansexual

[ ] Queer

[ ] Questioning

[ ] Straight or Heterosexual

[ ] Not sure

[ ] Prefer not to answer

[ ] Write in how you identify: _____

10. How do you identify? If you are biracial, multiracial or multicultural, please select all that apply. You will have a chance to add more details on your ethnicity or origin after this question.

[ ] Asian, Asian American (Including all regions of Asia)

[ ] Black or African American

[ ] Latino / Latina / Latinx / Latine or Hispanic

[ ] Middle Eastern, North African or Arab

[ ] Native American, Native Alaskan or Indigenous

[ ] Native Hawaiian or Pacific Islander

[ ] White

[ ] Optional - Write In how you identify: _____

Hidden unless: #10 Question “How do you identify? If you are biracial, multiracial or multicultural, please select all that apply. You will have a chance to add more details on your ethnicity or origin after this question.” is one of the following answers (“Asian, Asian American (Including all regions of Asia)”)

11. If you would like to share more on your ethnicity or origin, please choose all options that apply to you and/or write in your answer. You are seeing these options because you checked the box for “Asian, Asian American (Including all regions of Asia).”

[ ] Asian Indian

[ ] Chinese

[ ] Filipino

[ ] Japanese

[ ] Korean

[ ] Vietnamese

[ ] Write, for example, Pakistani, Cambodian, Hmong, etc.: _____

Logic: Hidden unless: #10 Question “How do you identify? If you are biracial, multiracial or multicultural, please select all that apply. You will have a chance to add more details on your ethnicity or origin after this question.” is one of the following answers (“Black or African American”)

12. If you would like to share more on your ethnicity or origin, please choose all options that apply to you and/or write in your answer. You are seeing these options because you checked the box for “Black or African American.”

[ ] African American

[ ] Ethiopian

[ ] Haitian

[ ] Jamaican

[ ] Nigerian

[ ] Somali

[ ] Write, for example, Ghanaian, South African, Barbadian, etc.: _____

Logic: Hidden unless: #10 Question “How do you identify? If you are biracial, multiracial or multicultural, please select all that apply. You will have a chance to add more details on your ethnicity or origin after this question.” is one of the following answers (“Latino / Latina / Latinx / Latine or Hispanic”)

13. If you would like to share more on your ethnicity or origin, please choose all options that apply to you and/or write in your answer. You are seeing these options because you checked the box for “Latino / Latina / Latinx / Latine or Hispanic.”

[ ] Colombian

[ ] Cuban

[ ] Dominican

[ ] Mexican or Mexican American

[ ] Puerto Rican

[ ] Salvadoran

[ ] Write, for example, Guatemalan, Spaniard, Ecuadorian, etc.: _____

Logic: Hidden unless: #10 Question “How do you identify? If you are biracial, multiracial or multicultural, please select all that apply. You will have a chance to add more details on your ethnicity or origin after this question.” is one of the following answers (“Middle Eastern, North African or Arab”)

14. If you would like to share more on your ethnicity or origin, please choose all options that apply to you and/or write in your answer. You are seeing these options because you checked the box for “Middle Eastern, North African or Arab.”

[ ] Egyptian

[ ] Iranian

[ ] Israeli

[ ] Lebanese

[ ] Moroccan

[ ] Syrian

[ ] Write, for example, Algerian, Iraqi, Kurdish, etc.: _____

Logic: Hidden unless: #10 Question “How do you identify? If you are biracial, multiracial or multicultural, please select all that apply. You will have a chance to add more details on your ethnicity or origin after this question.” is one of the following answers (“Native American, Native Alaskan or Indigenous”)

15. If you would like to share more on your ethnicity or origin, please choose all options that apply to you and/or write in your answer. You are seeing this option because you checked the box for “Native American, Native Alaskan or Indigenous.”

Write, for example, Navajo Nation, Blackfeet Tribe, Mayan, Aztec, Native Village of Barrow Inupiat Traditional Government, Tlingit, etc._____

Logic: Hidden unless: #10 Question “How do you identify? If you are biracial, multiracial or multicultural, please select all that apply. You will have a chance to add more details on your ethnicity or origin after this question.” is one of the following answers (“Native Hawaiian or Pacific Islander”)

16. If you would like to share more on your ethnicity or origin, please choose all options that apply to you and/or write in your answer. You are seeing these options because you checked the box for “Native Hawaiian or Pacific Islander.”

[ ] Chamorro

[ ] Fijian

[ ] Marshallese

[ ] Native Hawaiian

[ ] Samoan

[ ] Tongan

[ ] Write, for example, Palauan, Tahitian, Chuukese, etc.: _____

Logic: Hidden unless: #10 Question “How do you identify? If you are biracial, multiracial or multicultural, please select all that apply. You will have a chance to add more details on your ethnicity or origin after this question.” is one of the following answers (“White”)

17. If you would like to share more on your ethnicity or origin, please choose all options that apply to you and/or write in your answer. You are seeing these options because you checked the box for "White."

[ ] English

[ ] French

[ ] German

[ ] Irish

[ ] Italian

[ ] Polish

[ ] Write, for example, Scottish, Norwegian, Dutch, etc.:

Now, we're going to ask you a few questions about your experience using Crisis Text Line today.

18. Consider the feelings below, and let us know if they changed after you texted with a Crisis Counselor today.

	Not at all	Several days	More than half the days	Nearly every day
Feeling nervous, anxious or on edge	( )	( )	( )	( )
Not being able to stop or control worrying	( )	( )	( )	( )
Little interest or pleasure in doing things	( )	( )	( )	( )
Feeling down, depressed, or hopeless	( )	( )	( )	( )

19. Over the last 2 weeks, how often have you been bothered by the following problems?

	Not at all	Several days	More than half the days	Nearly every day
Feeling nervous, anxious or on edge	( )	( )	( )	( )
Not being able to stop or control worrying	( )	( )	( )	( )
Little interest or pleasure in doing things	( )	( )	( )	( )
Feeling down, depressed, or hopeless	( )	( )	( )	( )

20. In your conversation, did you mention an experience or feelings that you have not shared with anyone else?

( ) Yes

( ) No

( ) Not sure

21. In the conversation, I believe my Crisis Counselor was genuinely concerned for my well-being.

( ) Strongly agree

( ) Somewhat agree

( ) Neither agree nor disagree

( ) Somewhat disagree

( ) Strongly disagree

22. How did you learn about us? (Select all that apply)

[ ] From a family member or friend

[ ] Media or social media

[ ] Google search - Write In: _____

[ ] At school - Write In: _____

[ ] From a medical or mental health professional - Write In: _____

[ ] Other - Write In: _____

Logic: Hidden unless: #22 Question "How did you learn about us? (Select all that apply)" is exactly equal to ("Media or social media")

23. Where in the media did you learn about us? (Select all that apply). Please share the exact link of the post, if possible.

[ ] Facebook - Write In: _____

[ ] TikTok - Write In: _____

[ ] Twitter - Write In: _____

[ ] Instagram - Write In: _____

[ ] Snapchat - Write In: _____

[ ] YouTube - Write In: _____

[ ] Celebrity - Write In: _____

[ ] News article - Write In: _____

[ ] Other - Write In: _____

24. Have you ever shared the Crisis Text Line service, either with friends or family, or online? (Select all that apply)

[ ] Yes, with friends or family

[ ] Yes, online

[ ] No

For this next question, we want to understand if you have access to guns and how you secure them safely if you do.

All done--thank you :)

Appendix B: vCC post-conversation survey

Survey | Transcript | Notes

1. Issues mentioned

- [ ] Prank
- [ ] Testing the System
- [ ] Did Not Engage
- [ ] Third Party
- [ ] Outside of the U.S.
- [ ] Abuse, Emotional
- [ ] Abuse, Physical
- [ ] Abuse, Sexual
- [ ] Abuse, Unspecified
- [ ] Anxiety/Stress
- [ ] Bullying
- [ ] COVID-19
- [ ] Depression/Sadness
- [ ] Eating/Body Image
- [ ] Election/Inauguration
- [ ] Gender/Sexual Identity
- [ ] Grief
- [ ] Isolation/Loneliness
- [ ] Racism
- [ ] Relationships
- [ ] Self-Harm
- [ ] Substance Use
- [ ] Suicide
- [ ] Other

1 (continued). Suicide Risk Ladder (Select all that are confirmed as yes):

- [ ] Thoughts
- [ ] Plan
- [ ] Means
- [ ] Timeframe

Coping skills or safety plans agreed to by the texter:

e.g. Music (one skill per box)

e.g. Music (one skill per box)

Add Another One

Resources agreed to by the texter:

e.g. 211.org (one resource per box)

e.g. 211.org (one resource per box)

Add Another One

Debrief: How are you feeling?

Appendix C: Demographics of youth texters (2019-2021)

Table 4: Demographics of youth who completed the post-texter survey

Demographic category	Demographic sub-category	# of conversations		
		2019 (total n=95,567)	2020 (total n=101,635)	2021 (total n=91,820)
Age	10 or younger	29,744	31,672	29,030
	11 years old to 13 years old	65,823	69,962	62,798
	14 years old to 17 years old	68,060	74,980	59,229
Gender	Girl/woman	7,992	7,533	7,095
	Boy/man	7,218	8,036	11,261
	Other gender (Agender, Genderfluid, Genderqueer, Intersex, non-binary, Trans, Trans Masculine, Trans Feminine, Two Spirit)	1,080	1,639	1,928
Sexual identity	Bisexual	8,630	9,117	11,675
	Gay/Lesbian	3,838	4,197	3,787
	Straight or Heterosexual	47,094	54,296	52,143
	Other Sexual Identities (Asexual, Aromantic, Pansexual, Queer, Questioning, Not sure)	36,678	36,619	25,758
Racial/ethnic identity	Asian, Asian American (Including all regions of Asia)	5,652	6,463	5,530
	Black or African American	10,594	11,965	10,911
	Latino / Latina / Latinx / Latine or Hispanic	16,133	19,518	15,283
	Middle Eastern, North African, or Arab	1,405	1,793	1,081
	Native American, Native Alaskan, or Indigenous	4,389	4,120	3,339
	Native Hawaiian or Pacific Islander	1,403	1,449	1,033
	White	54,960	57,182	48,320
Did you find this conversation helpful? (Yes)		32,175	32,652	30,324

Appendix D: Definitions of 'issue tags'

Table 5: Issue tag definitions

Issue	Definition
Abuse, Emotional	Being confined, isolated, verbally assaulted, humiliated, intimidated, or anything that hurts self-worth.
Abuse, Physical	Intentional or unwanted contact close to their body. Includes: hitting, scratching, biting, strangling, throwing objects, preventing from leaving.
Abuse, Sexual	Unwanted sexual activity, with someone using force, making threats, or taking advantage of them without ability to give consent.
Abuse, Unspecified	Any situation where the texter is being harmed by another person that does not fall into physical, emotional, or sexual abuse.
Anxiety, Stress	A perception of pressure and/or a physical response in body to pressure.
Bullying	Unwanted aggressive behavior including threats, spreading rumors, attacking physically/verbally, or excluding from a group.
COVID-19	Mentions of COVID-19, Coronavirus, etc.
Depression/Sadness	Persistent feelings of sadness: may include inactivity, hopelessness, trouble thinking/concentrating, change in appetite.
Eating/Body Image	Focusing too much on weight, body shape, and food. Dangerous or abnormal eating behaviors.
Election/Inauguration	Mentions of the election or inauguration.
Gender/Sexual identity	Sexual orientation, gender identity, gender expression, gender transition, or other topic related to gender or sexual identity.
Grief	Mourning after a loss, especially after the death of a loved one.
Isolation/Loneliness	Feeling alone, companionless, unsupported, isolated
Racism	Mentions of racial stigma, racial trauma, racial tensions and/or racial discrimination.
Relationships	Concerns, stress, or preoccupation with family, friends, romantic relationships, or other relationships.
Self-harm	Deliberately harming the surface of their body, such as cutting or burning oneself.
Substance Use	Using alcohol, street drugs, or abusing prescription medication.
Suicide	Suicide attempt: a non-fatal, self-directed injurious behavior with an intent to die OR suicidal ideation-thinking about, considering, or planning suicide.
Other	Issue does not fit into any of these categories.

Appendix E: Data details

Table 6: Number of youth conversations by time of day and year

Year	...12am - 6am		... 6 am - 12pm		... 12 pm - 6pm		... 6 pm - 12 am		Total youth conver-sations
	# of youth conver-sations	% of yearly total	# of youth conver-sations	% of yearly total	# of youth conver-sations	% of yearly total	# of youth conver-sations	% of yearly total	
2019	9,674	10.5%	10,669	11.6%	22,463	24.5%	48,967	53.4%	91,773
2020	23,246	23.5%	9,411	9.5%	20,144	20.4%	45,918	46.5%	98,719
2021	12,773	14.4%	9,998	11.3%	20,560	23.2%	45,434	51.2%	88,765

Table 7: Top five youth stressors by month

Month	# of youth conversations	Depression and Sadness	Stress and Anxiety	Relationships	Suicide	Isolation
Jan-19	9395	41.5%	33.0%	37.7%	34.8%	20.6%
Feb-19	8612	42.0%	31.8%	37.0%	33.7%	20.8%
Mar-19	9027	41.2%	33.4%	36.9%	33.7%	21.8%
Apr-19	9236	39.8%	33.1%	37.4%	34.0%	20.7%
May-19	8402	38.1%	32.4%	38.2%	33.4%	21.4%
Jun-19	8166	39.1%	31.0%	41.1%	31.8%	22.3%
Jul-19	7959	41.5%	32.2%	40.7%	31.5%	22.3%
Aug-19	6959	39.6%	35.6%	38.2%	32.6%	22.3%
Sep-19	6955	40.7%	35.2%	37.2%	33.5%	22.1%
Oct-19	8087	40.3%	35.1%	38.7%	34.2%	22.3%
Nov-19	7965	41.0%	35.1%	39.3%	33.4%	22.0%
Dec-19	4856	40.1%	35.4%	37.6%	34.7%	20.4%
Jan-20	4784	39.1%	35.8%	38.2%	32.3%	22.3%
Feb-20	4302	41.1%	35.7%	36.8%	32.8%	22.0%
Mar-20	4689	36.4%	37.8%	34.6%	31.8%	22.4%
Apr-20	7585	38.2%	35.8%	35.8%	28.6%	23.8%
May-20	9657	38.1%	36.6%	35.2%	27.2%	25.1%
Jun-20	9147	38.5%	34.8%	35.2%	26.8%	25.9%
Jul-20	12772	39.8%	31.4%	37.7%	24.9%	26.8%
Aug-20	9977	37.1%	32.3%	35.1%	26.2%	21.3%
Sep-20	10055	37.0%	34.8%	32.0%	28.3%	19.8%
Oct-20	9281	38.0%	35.5%	31.1%	29.0%	19.2%
Nov-20	10437	39.5%	35.9%	33.3%	28.0%	20.3%
Dec-20	8985	38.4%	37.2%	34.0%	28.9%	18.5%
Jan-21	8935	38.0%	38.5%	35.9%	29.3%	19.8%
Feb-21	7831	38.3%	37.4%	34.4%	29.4%	20.2%
Mar-21	7961	37.1%	36.4%	33.3%	29.8%	19.2%
Apr-21	8365	37.3%	35.7%	34.5%	31.8%	21.0%
May-21	8659	36.9%	35.7%	35.6%	29.8%	22.1%
Jun-21	7338	35.7%	33.9%	37.3%	29.6%	22.4%
Jul-21	7100	35.9%	33.6%	36.1%	29.9%	23.0%
Aug-21	6548	33.2%	37.3%	36.3%	28.0%	22.4%
Sep-21	6991	35.0%	37.4%	34.6%	30.4%	21.8%
Oct-21	7159	35.1%	37.0%	33.0%	29.9%	23.1%
Nov-21	7818	34.9%	33.0%	31.5%	29.1%	21.5%
Dec-21	7027	35.0%	33.1%	34.7%	29.8%	20.6%

= lowest, = highest

Table 8: Youth conversations by demographic sub-group mentioning stressors with significant changes (2019-2021)

Demographic	**Stress/ Anxiety %**		**Isolation/ Loneliness %**		**Grief/ Bereavement %**		**Eating Disorders/ Body Image %**	
sub-category	n	Yes	n	Yes	n	Yes	n	Yes
Asian, Asian American (Including all regions of Asia)	6,928	**39.3%**	3,989	22.6%	497	2.8%	929	5.3%
Black or African American	10,821	32.3%	7,694	**23.0%**	1254	3.7%	1,797	5.4%
Latino / Latina / Latinx / Latine or Hispanic	17,958	35.3%	11,509	22.6%	1886	3.7%	2,712	5.3%
Middle Eastern, North African, or Arab	1,605	**37.5%**	1,010	**23.6%**	128	3.0%	290	**6.8%**
Native American, Native Alaskan, or Indigenous	4,023	34.0%	2,570	21.7%	583	**4.9%**	580	4.9%
Native Hawaiian or Pacific Islander	1,388	35.7%	926	**23.8%**	161	4.1%	179	4.6%
White	56,861	35.4%	34,078	21.2%	5900	3.7%	8,619	5.4%
13 years old and younger	42,875	28.3%	27,713	18.3%	4,964	3.3%	8,348	5.5%
14 years old to 17 years old	127,551	**32.3%**	73,090	18.5%	12,480	3.2%	18,705	4.7%
Girl/woman	71,408	35.3%	44,774	22.1%	7,707	3.8%	11,655	**5.8%**
Boy/man	7,552	33.4%	5,376	23.8%	902	4.0%	500	2.2%

Table 9: Number and percent of youth conversations mentioning COVID-19, eating disorders, grief and bereavement, and bullying by month

Month	# of youth conversations	COVID-19	Eating Disorders	Grief and Bereavement	Bullying
Jan-19	9395	0.0%	4.8%	3.2%	5.1%
Feb-19	8612	0.0%	4.7%	3.1%	6.0%
Mar-19	9027	0.0%	4.5%	3.1%	6.2%
Apr-19	9236	0.0%	4.6%	3.4%	5.5%
May-19	8402	0.0%	4.5%	3.2%	5.3%
Jun-19	8166	0.0%	4.4%	3.5%	4.0%
Jul-19	7959	0.0%	5.9%	3.7%	3.3%
Aug-19	6959	0.0%	5.0%	3.4%	4.1%
Sep-19	6955	0.0%	4.6%	3.2%	4.4%
Oct-19	8087	0.0%	4.4%	3.0%	4.6%
Nov-19	7965	0.0%	4.9%	3.5%	4.8%
Dec-19	4856	0.0%	4.4%	3.2%	3.9%
Jan-20	4784	0.0%	4.4%	2.9%	3.9%
Feb-20	4302	0.0%	4.2%	3.0%	3.7%
Mar-20	4689	10.4%	4.5%	2.9%	3.2%
Apr-20	7585	11.7%	5.6%	3.9%	3.1%
May-20	9657	7.3%	6.1%	4.0%	2.9%
Jun-20	9147	3.5%	6.2%	4.7%	3.2%
Jul-20	12772	3.1%	6.1%	4.7%	3.4%
Aug-20	9977	2.6%	6.0%	4.0%	2.7%
Sep-20	10055	2.4%	5.1%	3.9%	2.7%
Oct-20	9281	2.7%	4.6%	3.4%	2.2%
Nov-20	10437	3.1%	4.8%	4.1%	2.4%
Dec-20	8985	2.9%	4.8%	4.0%	2.1%
Jan-21	8935	2.7%	5.1%	3.6%	2.3%
Feb-21	7831	2.1%	5.3%	3.7%	2.3%
Mar-21	7961	1.6%	5.6%	3.8%	2.4%
Apr-21	8365	1.3%	6.0%	4.0%	2.8%
May-21	8659	0.9%	5.9%	3.7%	3.1%
Jun-21	7338	0.6%	6.7%	4.2%	2.7%
Jul-21	7100	0.4%	7.4%	4.1%	2.7%
Aug-21	6548	1.1%	6.9%	3.5%	3.3%
Sep-21	6991	0.9%	6.3%	3.5%	3.9%
Oct-21	7159	0.5%	6.0%	3.6%	4.1%
Nov-21	7818	0.4%	6.8%	4.0%	3.5%
Dec-21	7027	0.8%	6.5%	3.9%	3.2%

= lowest, = highest

Table 10: T-test results – change over time from lowest to highest month for stressors with significant change

Stressor	Lowest month	Highest month	Lowest month			Highest month			t-value	p-value	Cohen's d
			n	sd	% yes	n	sd	% yes			
Stress and Anxiety	June 2019	January 2021	2535	0.46	31.0%	3438	0.49	38.5%	-10.22	<.001	0.16
Isolation and Loneliness	December 2020	July 2020	1664	0.39	18.5%	3423	0.44	26.8%	-14.28	<.001	0.20
Grief and Bereavement	March 2020	July 2020	134	0.17	2.9%	599	0.21	4.7%	-5.36	<.001	0.10
Eating Disorders and Body Image Issues	February 2020	July 2021	181	0.20	4.2%	525	0.26	7.4%	-6.86	<.001	0.14

Table 11: Coping mechanism categories and included word combinations

Coping mechanism theme	Word(s) included
Music, including singing, listening to music, and playing guitar	band, play piano, music, listen music, sing, singing, play guitar
Reading or writing, including journaling, poetry and letters	book, poetry, write journal, write letter, read, write poetry, write, journal, writing, journaling, letter
Resting, including sleeping, napping, taking a bath or shower	bed, go sleep, sleep, sleeping, nap, bath, rest, shower, lay
Art, including drawing, painting, and coloring	draw, art, paint, painting, color, coloring, drawing
Talking or spending time specifically with friends, including girlfriends or boyfriends	spend time friends, best friend, hang friends, talk friends, friend, friends, talk friend, talk best friend, boyfriend, talk boyfriend, talk girlfriend, girlfriend, reach friends, reach friend
Watching TV, videos, and movies (including youtube, Netflix, anime, TikTok)	watch funny, watch tv, tv, watch movie, YouTube, videos, watch YouTube, movies, movie, Netflix, watch movies, watch anime, watch videos, TikTok, watch Netflix, watch favorite
Connecting with family, specifically talking with moms, dads, caregivers, and siblings	mother, talk mom, mom, talk parent, parent, talk dad, dad, talk sister, talk family, sister, brother, family, talk parents, talk mother
Accessing therapy or talking with a therapist, counselor, or doctor	doctor, counsel, counselor, therapist, therapy, talk therapist, talk counselor, find therapist
Exercising, including walking, dancing, running, yoga, basketball, and exercising	walk, exercise, dance, go walk, run, dancing, walking, yoga, basketball, bike, volleyball
Talking with teachers, school, or doing homework	teacher, talk teacher, homework, talk school, school
Meditation, breathing exercises	breathe exercise, breathe, meditation, calm, relax, focus, breathing, meditate, break
Video games	video games, play video game

Table 12: Top youth coping mechanisms (2019-2022)

Top coping mechanisms	Youth dataset 2019 (total n = 95,567)		Youth dataset 2020 (total n = 101,635)		Youth dataset 2021 (total n = 91,820)		Augmented dataset 2019 (total n = 304,625)		Augmented dataset 2020 (total n = 401,628)		Augmented dataset 2021 (total n = 293,366)	
	#	%	#	%	#	%	#	%	#	%	#	%
Music	11,309	11.8%	14,056	13.8%	11,514	12.5%	30,899	10.1%	49,491	12.3%	31,905	10.9%
Read / write	7,181	7.5%	6,725	6.6%	6,055	6.6%	23,015	7.6%	28,670	7.1%	18,550	6.3%
Sleep / bath	7,113	7.4%	8,949	8.8%	8,705	9.5%	19,415	6.4%	29,114	7.3%	22,489	7.7%
Art	6,370	6.7%	7,236	7.1%	6,261	6.8%	15,711	5.2%	24,203	6.0%	16,364	5.6%
Talk to friends	5,931	6.2%	7,165	7.1%	5,483	6.0%	23,208	7.6%	34,000	8.5%	21,443	7.3%
Watch tv / videos	4,740	5.0%	5,291	5.2%	5,176	5.6%	11,576	3.8%	16,294	4.1%	12,812	4.4%
Connect with family	4,454	4.7%	5,069	5.0%	3,399	3.7%	13,577	4.5%	18,937	4.7%	10,513	3.6%
Access therapy / doctor	4,341	4.5%	4,258	4.2%	3,579	3.9%	11,351	3.7%	13,000	3.2%	8,948	3.1%
Exercising	2,552	2.7%	4,265	4.2%	2,899	3.2%	7,257	2.4%	14,733	3.7%	17,578	6.0%
School	2,160	2.3%	1,053	1.0%	1,260	1.4%	5,596	1.8%	3,742	0.9%	2,956	1.0%
Meditation	2,040	2.1%	2,276	2.2%	1,885	2.1%	5,199	1.7%	6,881	1.7%	5,114	1.7%
Video games	729	0.8%	1,079	1.1%	1,144	1.3%	1,919	0.6%	3,862	1.0%	3,051	1.0%

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