

Implementation of Kooth in Pennsylvania: A school-based access approach to providing a mental health and wellbeing service

A Report of the Pilot's First Five Months



Foreword

The high prevalence of mental health difficulties for young people across the United States and indeed beyond is well documented, and at the same time, access to care for these difficulties can be challenging. While the COVID-19 pandemic not only exacerbated mental health issues it has also decreased access to care. It is clear that many of the difficulties in care access, in particular for mental health and wellbeing, have been around for some time before the COVID-19 pandemic, including long wait lists with limited appointment availability, geographical clinician shortages, social determinants of care barriers, high entry thresholds, accessibility difficulties, and inflexible approaches that may not match what young people want. These problems have now become worse than ever though. The causes for these difficulties are multiple and complex - much like mental health itself. This provides challenges for all invested stakeholders, including those providing support, funding support and, of course, needing support.

At Kooth, we specialize in developing products and services, designed with young people, to support young people's mental health and wellbeing and that directly address many of the challenges to

care access noted above. Users of Kooth appreciate flexibility in their journey through mental health services which is reflected in our approach to care. We also believe that regardless of where young people are on the spectrum of mental health, having a sense of hope and control is vitally important. We strive to provide this for everyone who uses Kooth, through a strengths-based approach, individualized support, and by removing as many barriers to accessing services as possible.

Our hope is that this Pulse Report, written in collaboration with leading academics, provides an overview of the services we provide and trends noted by users, and that together we can continue to partner to proactively identify and support our young people with their mental health.



Bob McCullough
VP of Clinical Strategy,
Kooth US

Executive Summary

Dr Ellen Fitzsimmons-Craft discusses the data seen in this report and how it relates to the benefits of a whole-school approach

The data in this report make clear that there is major value in a whole-school approach to service provisions for mental health, as Kooth has achieved through this initial pilot in Pennsylvania. For one, youth spend most of their time in school, and as such, this is an ideal setting in which to reach them for support with their mental well-being. At the same time, because youth spend so much time in school, this represents a major barrier to access to traditional mental health services. Kooth is able to circumvent this issue given its digital nature and 24/7 access, and indeed, this feature of the service clearly resonated with students. Almost three-quarters of student survey respondents reported it was important to them to have access to Kooth at all hours, and 42% of log-ins in the pilot were outside of school/business hours. Second, this approach allows for all children and young people to be reached, regardless of their parents' attitudes toward mental health and their socioeconomic background and resources for obtaining and paying for care. Being able to get help with their mental health without having to involve their parents was the second most common reason youth in Pennsylvania reported using Kooth. Third, the whole school approach utilized by Kooth will aid with creating a culture around identification and open discussion of these issues. The data presented here show the great value of 'Kooth Days' (where the team delivers engagement activities in participating school districts) in terms of increasing uptake of the service for ALL students, not just those who are acutely distressed, which will in turn decrease stigma and normalize greater discussion of mental health. In general, the use of universal strategies for promoting enrollment in Kooth-in other words, encouraging sign-up for ALL students- will aid with increasing the 'normalcy' of discussing and addressing mental well-being. Fourth, the data presented here show that only about 50% of teachers currently feel comfortable discussing mental health issues with students, and thus having access to Kooth will provide a language for teachers to discuss mental health issues with students and resources that they can immediately direct students to. Overall, this data provides strong indication that provision of a whole-school approach such as Kooth represents an important and effective strategy for addressing our current youth mental health crisis that circumvents many of the barriers to use of traditional services that youth currently face.

This report comprises four main sections:

- 1. How Kooth improves access to mental health wellbeing services
- 2. How Kooth reduces the need for downstream intervention with early help
- 3. How Kooth enables the use of other services
- 4. How Kooth impacts the school system, at a student and organizational level

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During the Kooth Pilot...

92,184 students now have access to Kooth in Pennsylvania

72% of service users would recommend Kooth to a friend

Of 35 service users who provided feedback after a chat:

93% felt heard, understood and respected

91% found the session helpful, and

86% would recommend chat to a friend





1 in 5

students who registered on Kooth presented with a severe level of psychological distress 79% of service users think Kooth is a useful source of support

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92%

of school and school district staff members said that they think digital services can support children and young people's mental wellbeing in their school districts



Top three primary reasons why students are currently using Kooth:

To connect with other people experiencing something similar to me (62%)

To get mental wellbeing help that doesn't require me going to a counselor (e.g., seeing someone face-to-face) (45%)

To get mental wellbeing help anytime/ anywhere I need it (59%)

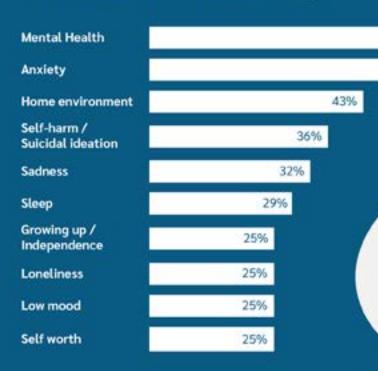


(of which, 14 were referred outside of Kooth)



(of which, 12 were referred outside of Kooth)

Prevalence of presenting issues among students who were recommended a structured chat after triage



"Today, Kooth is one of the few—if not the only—digital mental health company that has fully integrated single-session therapy approaches into their platform to support student mental health."

75%

- Dr Jessica Schleider

Service Integration - we have referred students outside of Kooth to school counselors, social workers, Safe2Say, Crisis Text, Non-Profit Guidance Centers, and local emergency services



Popular articles read were:

"Stress and Sleep: how to Manage", "Trauma Awareness", "Experiencing Depression when You're by Yourself", "Peer Pressure: how to say no"



of superintendents and principals said they were confident or very confident that Kooth will improve rapid escalation of support for students in crisis

1,005

goals were set by 757 unique service users, in topics relating to 'School, college or training', Self-care', and 'Confidence and self-acceptance'

"My ideal support would be a therapist that I can contact at any time who would help me work through things as they happen." Student, 18, 12th Grade



What Kooth Does...

Inputs

- Evidence-based ecosystem with multiple modes
- Skilled and experienced practitioners and moderators
- No threshold, 24/7 and out-of-hours support
- Triage, safeguarding and risk management
- Age-appropriate, informative, and safe content
- Digital native users
- Co-design and participation
- Commissioning relationships

Activities

- Routine outcome collection
- Risk assessment and monitoring
- Clinical assessments, audits, and safeguarding meetings
- Variety of support pathways (structured, responsive, community, and self-directed
- Tailored risk response: information, safety plans, and referrals
- Moderation of user activity and content
- **Engagement sessions**

Kooth



Forums



Resources



Journaling & Goal-setting



Mini-Activities



Features



Chat and **Messaging Support** Appropriate Referrals

Behavioral Health Learning **Professional Support Improved Access to Services** Risk Management

Kooth is a safe, confidential mental health and wellbeing community

Kooth is a safe, confidential mental health and wellbeing community that is supported by decades of research conducted in collaboration with leading academic and mental health institutions in the United Kingdom. Kooth has partnered with The Department of Human Services in a pioneering pilot to provide digital behavioral health services to students in Grades 6 to 12 across Pennsylvania.

Recognizing significant barriers to mental health support for youth in the United States, Kooth has now been made available to thousands of students in Pennsylvania, providing them rapid access to self-therapy, peer support and professional support from any internet-connected device, without the need for a referral and at no additional cost to the student, their parent/ caregiver, or the school.

Bob McCullough VP of Clinical Strategy, Kooth US



Dr Ellen Fitzsimmons-Craft discusses the specific needs and opportunities for Kooth in Pennsylvania

Even before the emergence of COVID-19, fewer than 20% of youth with mental health needs ever received services of any kind, and the need-to-access gap has worsened dramatically during the global pandemic. School closures affecting >50 million students have led to isolation and disruption of educational and socialemotional supports; simultaneously, families are grappling with collective trauma as more than 200,000 children in the United States have lost a parent or caregiver to COVID-19, a burden disproportionally experienced by racial and ethnic minority youth. The U.S. Surgeon General issued an advisory to highlight the urgent need to address the nation's youth mental health crisis(1), which was echoed in President Biden's 2023 State of the Union address as well(2). The American Academy of Pediatrics, the American Academy of Child and Adolescent Psychiatry, and the Children's Hospital Association have jointly declared a national emergency in youth mental health as well(3). According to the 2023 State of Education report from the Pennsylvania School Boards Association, mental health issues are the top instructional challenge reported by school districts for the third straight year(4).

According to the most recent 2021
Pennsylvania Youth Survey (PAYS),
conducted by the Pennsylvania
Commission on Crime and Delinquency,
the Pennsylvania Department of
Drug and Alcohol Programs, and the
Pennsylvania Department of Education;

- 72% of students reported moderate or severe depression
- 18% of students reported self-harm
- 19% of students reported seriously considering suicide. When students reported bullying through texting and social media, the number of students seriously considering suicide grew to an extremely alarming 41%.

We can be sure these problems have increased during COVID-19, with some data indicating the prevalence of depression and anxiety in youth from before to during and after COVID jumped even higher in Pennsylvania compared to nationally. While the National Association of School Psychologists recommends a ratio of one school psychologist for every We can be sure these problems have increased during COVID-19, with some data indicating the

prevalence of depression and anxiety in youth from before to during and after COVID jumped even higher in Pennsylvania compared to nationally (6). While the National Association of School Psychologists recommends a ratio of one school psychologist for every 500 students, in Pennsylvania, the ratio is more than double this—there is one school psychologist for every 1,078 students(7).

In essence, a generation of young people, including in Pennsylvania, exposed to unprecedented psychosocial adversity is poised to fall through the cracks of existing mental healthcare systems, which is particularly alarming as **adolescence is the peak time of onset for most mental health disorders**(8). Untreated symptoms become more frequent, severe, and persistent over time(9–11), which has lasting consequences on functioning, physical health, suicidality, social relationships, and educational attainment(12–14). It is critical to identify effective, scalable strategies to protect and promote population-level mental health for our youth.

Meet the expert

Ellen Fitzsimmons-Craft, PhD, LP



Dr. Fitzsimmons-Craft is an Associate Professor of Psychiatry at Washington University School of Medicine and a licensed clinical psychologist. Dr. Fitzsimmons-Craft's research centers on the use of technology for mental health disorder screening, prevention, and treatment, with a particular emphasis on eating disorders.

Find out more about Ellen in the expert profiles on page 71.

This Report: Methodology

We used three methods of data collection within this report. This included: (1) data routinely collected for students in Pennsylvania who registered on Kooth between 7th November 2022 - 31st March 2023; (2) a survey advertised on Kooth and via email communications between 23 January - 2nd April 2023; and (3) surveys shared with key stakeholders (guidance counselors, teachers, principals and superintendents) from school districts taking part in the pilot program one month after Kooth was made available in their district.

- The data extraction included a sample of 5,586 students who have registered on Kooth. Students were 67% White, 11% Black or African American, 11% Hispanic, 8% Mixed ethnicity, 3% Asian and 1% American Indian or Alaska Native. For these individuals, we were able to analyze the prevalence of presenting issues and levels of psychological distress, their usage of the platform, and our referrals to other services.
- 2. A total of 46 students responded to the survey¹, which explored their 'ideal' support for their mental wellbeing, and their reasons for and experience of using Kooth.
- 3. A total of 69 school and school district staff members (48 teachers, 9 guidance counselors, 6 principals, and 6 superintendents) responded to the stakeholder surveys², which explored the challenges to mental wellbeing support for their students and their response to Kooth.

In this report, you will also find expert commentaries from leading academics; Dr Jessica Schleider and Dr Ellen Fitzsimmons-Craft, as well as clinical case studies and quotes from both Kooth users and education-based stakeholders in Pennsylvania. Our full methodology is outlined in the Appendix.

 $^{^1}$ Survey was provided in English and Spanish. Students had to be 14 years or older to take part in the survey. Students voluntarily chose to take part and those who completed the survey (n=35) were entered into a raffle to win a \$30.00 gift card.

² Main contacts at each school district shared the surveys to staff members at their discretion, and participation in the surveys was voluntary. 8 teachers and 1 guidance counselor did not complete the entire survey.

1) How Kooth improves access to mental health and wellbeing services

The current administration recognizes the increased need for access to services, particularly for young people who, in the light of the COVID-19 pandemic, have been experiencing increased social isolation, grief, depression, and anxiety (15). Eliminating barriers to care and expanding access to the full continuum of prevention, treatment, and relapse prevention services, as well as prioritizing the integration of these services into settings where young people and their families can access them, are key priorities for the Biden-Harris Administration.

Barriers to accessing wellbeing support for youth in Pennsylvania

Even though steps are being taken to improve access and reduce stigma, there are currently still barriers to access and delivery of mental health services in Pennsylvania and throughout the United States, especially for youth.

Currently:

- Youth cannot typically access mental health care independently, even though they may not feel comfortable or ready to discuss certain issues with parents and caregivers (such as issues related to their gender or sexuality).
- The mental health care system is extremely difficult to understand and it takes many steps to actually get to the point of seeing a mental health provider and very high motivation to stay in treatment once it is accessed.
- Treatment is expensive and often not covered by insurance.

- There is no way to access 'on-thespot', one-time support, which is how many youths prefer to access treatment for their mental health concerns.
- Treatment is only available during school hours.
- Providers with experience in certain mental health problems may not be available near where someone lives, and even if they are, they often have long waitlists that can be six months or more.
- Disproportionately few mental health professionals reflect the cultural and ethnic characteristics of those in need of care.
- The system has not been built with adolescents and young people in mind.



The most important factors for students accessing mental health services were³;

- (1) privacy,
- (2) no cost for access,
- (3) speaking to a trained professional, and
- (4) **immediate support** (rather than, for example having to wait a long time to see a therapist or doctor)

Students are not comfortable speaking about their mental wellbeing

As highlighted above, youth cannot typically access mental health support independently from their parents or caregivers. Importantly, **though 65% of students feel like they need professional support**, **63% do not feel comfortable speaking to a friend or family about their mental wellbeing**.

Students reported that they felt they would be negatively judged by others or that speaking to others would have negative social consequences. These students reported feeling that their friends and family would not understand or would be dismissive of their difficulties. Students also reported lacking close social or family relationships and did not feel able to open up to others. Lastly, some felt they would burden or worry others.

"I feel like they wouldn't quite get how I was feeling and why I would be feeling that way. I know they would be able to sympathize, but I don't want sympathy, I want to be understood."

Student, from Pennsylvania⁴

"I feel like when I do speak about it, they would not understand, or I would feel as if they did not want to listen. I am afraid that if I spoke, it would change their thoughts about me and they would distance themselves from me."

Student, 16, 10th Grade

The importance of no cost to access for students

No cost for access was the second most important factor for students when accessing support for their mental wellbeing. This was echoed by responses from teachers in Pennsylvania schools⁵; 82% of whom identified **no cost for students to access** as the most valuable feature of Kooth for those who they refer to the platform. In support of our findings, it is widely recognised that the costs of treatment and support are a major barrier to young people accessing mental health care in America. Although the proportion of uninsured families has reduced, access to mental health care has not significantly improved since 2000. Kooth aims to remove inequalities in mental health access and, as a free-at-the-point-of-use service, is clear from financial barriers to seeking support.

"[The benefits of Kooth over other types of support I can access is] it is free to access"

Student, 14, 9th Grade

"[The benefits of Kooth over other types of support I can access is] its free and especially helpful since i dont have money to pay for therapy"

Student, 15, 9th Grade

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⁵ From a sample of 34 teachers who responded to the survey.

³From a sample of 46 students who responded to the survey.

⁴ Student chose not to disclose personal information.

There have not been enough resources to meet the rising mental wellbeing needs of students

2 in 3 students who responded to the survey said they needed professional mental wellbeing support at that moment

There is an increasing need for trained professionals in order to meet the rising mental health and wellbeing difficulties among youth. This is an ever-growing challenge for superintendents to achieve, especially those based in Pennsylvania's rural school districts.

"We've tapped into everything we can and with only 400 students total and a caseload for Mental Health Specialists set at 40 we still can't see all the students in need in a weekly/ bi-weekly fashion. We've tried to contract services out through multiple vendors and have had a second MHS position posted for almost a year with no applicants in remote districts in Rural PA it is difficult to pay competitive rates to what Philly and Pittsburgh can pay for these positions hence the lack of attraction to the Northern PA Rural Districts. We've partnered with county services to provide instruction as preventive maintenance on bullying, vaping, self esteem, coping skills etc. and have still not seen a decrease in the Mental Health Referrals that we receive through our Student Assistance Program meetings."

Superintendent, from Pennsylvania

These challenges faced by one superintendent are mirrored by responses from key members of staff across various school districts in Pennsylvania. 95% of staff reported that there was an increased need for more mental wellbeing support for students in their school over the last year⁶.

"We lack mental health services in the area. I refer students, and I'm told they can't get in to see anyone for months."

Guidance Counselor, Oswayo Valley

"Our current in-person providers are overwhelmed."

Principal, from Pennsylvania



"It is clear that we need a system that is built around the needs of youths and targeted at removing the barriers TEENS face and experience as most pressing. Kooth aims to address these challenges through working closely with the school districts in Pennsylvania to remove some of the barriers and improve access to mental health and wellbeing support."

Dr Ellen Fitzimmons-Craft



⁶From a sample of 62 staff members who responded to the survey.

Kooth is pioneering for equitable access by integrating digital services into schools

Kooth is beginning to embed itself into school districts across Pennsylvania

Since the pilot program launched in November 2022, Kooth has integrated into 18 school districts⁸ across Pennsylvania to provide digital mental health wellbeing services to students. Access has continued to ramp up as Kooth went live in each district during this period (Figure 1). In just five months, it is estimated that a population of 93,552 students now have access to Kooth⁹.

The districts participating in the pilot represent rural, suburban and urban school districts across the Commonwealth. Districts are varied in size from those smaller districts (serving around 200 students) to some of the largest districts in the state (with approximately 65,000 students). Though across the state, there are a higher concentration of districts in the East and North/North Central regions.

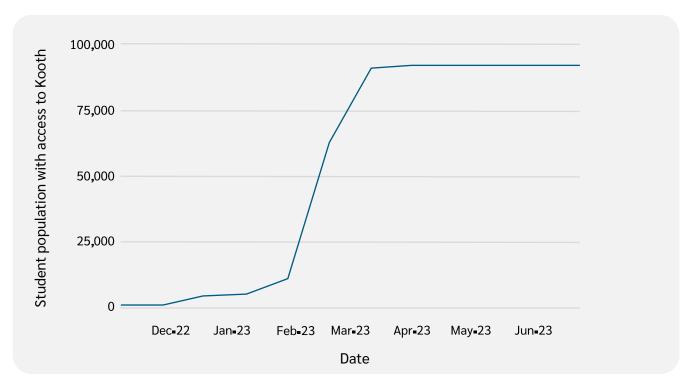


Figure 1. Cumulative number of students in Pennsylvania with access to Kooth across 18 school districts during 22/23 school year.

In the first five months of the pilot program, Kooth Engagement Leads have delivered a total of 209 school activities, such as parent webinars, teacher leader training, clinical talks and meetings with local services such as Philly Youth Clinic, and 'Kooth Days' for students. As a result, our top four "Heard About" sources for students registering on the platform are 'school -assembly' and 'school counselor, teacher or staff member'.

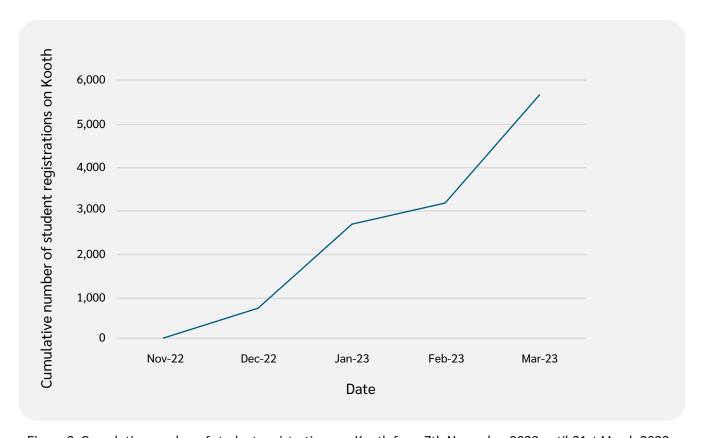


Figure 2. Cumulative number of student registrations on Kooth from 7th November 2022 until 31st March 2023.

"Our district is 254 square miles and is high poverty. Many students may have difficulty accessing the local providers due to distance alone."

Superintendent, from Pennsylvania

⁸In order of go-live date: Wyoming Area, Oswayo Valley, Port Allegany, Scranton, Coudersport Area, Jim Thorpe Area, Forest Area, Ephrata Area, Bradford Area, Smethport Area, Wyoming Valley West, Cameron County, Pittston Area, Philadelphia City, Wilkes-Barre Area, Girard, and Greater Nanticoke Area.

⁹Note. Students aged 11 and 12 years old were able to access Kooth from 14th March 2023.

As the Kooth platform went live in more and more schools, we observed a steady and positive uptake in the numbers of registrations across school districts. This 'ramping up' of registrations from the launch of the pilot program can clearly be seen in Figure 2. A total of 5,586 students had registered on Kooth by 31st March 2023. Of note, the users registered on the platform to-date are representative of the Pennsylvania youth population (Table 1). We also see this at a district level, for example, the largest percentage of students (49%) attending schools in the district of Philadelphia are Black or African American and encouragingly, 54% of students who have registered on Kooth in Philadelphia are Black or **African American.** These observations provide support that, through its whole school approach to mental wellbeing support, Kooth is able to reach and engage racially and ethnically diverse groups, as well as those from gender minorities. This is fundamental given the widely recognised disparities in access to care and treatment for people from racial or ethnic minority groups, such as Black or African American and Hispanic groups, that will have been further increased as a result of the COVID-19 pandemic. Further, male and gender minority populations are also traditionally underrepresented in mental health care; however, on Kooth platform, 6% of registered students identify as non-

binary compared to 3% of students in Pennsylvania, according to the <u>Pennsylvania</u> <u>Youth Survey (PAYS)</u> 2021.

According to PAYS 2021, 14% of students are of Hispanic origin yet only 4% of students report that Spanish is the language they use most often at home. To provide equitable support to this population, we have strived to offer the Kooth platform in Spanish. Spanish was enabled in February 2023 and, in the last two months alone, 60 students have chosen to view the platform in Spanish. We expect the popularity of Spanish to increase as Kooth becomes more embedded into the existing school districts.





"Students have more access to digital resources than ever before. They go to it to meet their social needs, entertainment, etc. It only makes sense that they have and use it for mental well being."

Principal, from Pennsylvania

	Percentage of users registered on Kooth (n=5,586)	Percentage of Pennsylvania Youth Survey (PAYS) 2021 respondents (n=246,0831)
Gender		
Female	49%	47%
Male	45%	50%
Non-binary ¹⁰	6%	3%
Ethnicity/Race		
American Indian or Alaska Native	1%	1%
Asian or Pacific Islander	3%	6%
Black or African American	11%	10%
Hispanic ¹¹	11%	14%
Mixed	8%	6%
White	67%	70%

Table 1. A summary of the characteristics of students in Pennsylvania who registered on Kooth between 7th November 2022 and 31st March 2023.

¹⁰Reported as 'Other' in the <u>PAYS 2021 State Report</u>.

¹¹'Hispanic' is reported in terms of ethnicity, whereas other groupings are reported as ethnicity in the <u>PAYS 2021 State Report</u>, whereas other groupings are reported in terms of race. Therefore, the percentage breakdown here is non-distinct and sums to over 100%.

Why are students choosing to use Kooth?

We are seeing young people return and engage with Kooth after registration, with 5,431 service users returning to utilize Kooth. As Kooth is providing support to the whole school population, in 18 districts already, there is a clear access route when needed for young people, without the need for formal referrals, waiting lists or their parents or carers to coordinate this support.

"[My ideal support] would either be online anytime or in person only at school"

Student, 17, 11th Grade

For young people in particular, as this is a very formative time between childhood and young adulthood, when most mental health disorders have their peak of incidence, it is critical to provide timely and appropriate care at the 'time of need' to ensure early intervention and prevention of mental health deterioration. A large proportion of young people are choosing to access Kooth outside of school or working hours. This supports the argument that, as Kooth is digital, it removes barriers to accessing support, with 1-to-1 professional support as well as 24/7 community resources and tools available to young people to access after school-time and when community-based face-to-face services are closed.

Alongside providing direct support to young people, Kooth also strives to improve mental health and wellbeing literacy as well as reduce stigma relating to mental health needs. Fostering a safe virtual eco-system of support where young people can return to when needed throughout their school year is important as we know that throughout the year there will be unique difficulties and needs for young people. Feedback from staff members in districts where Kooth is available has also emphasized the value of students being able to access Kooth whenever they want or need.

"I think that it will be nice for the students to feel more support when they are not in school - this is something that they can utilize at any time and I think that there is a lot of value in that."

Guidance Counselor, Forest Area

Three primary reasons for wanting to use Kooth...

- To connect with other people experiencing something similar to me (62%)
- To get mental wellbeing help that doesn't require me going to a counselor (e.g., seeing someone face-to-face) (45%)
- To get mental wellbeing help anytime/anywhere I need it (59%)



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"Kooth allows our students to be able to manage their mental health issues. They can freely ask questions, get answers and speak with a licensed therapist if needed. It is a type of security for them knowing it is always available for them."

Guidance Counselor, Wilkes-Barre Area

1 in 2 young people who responded to the survey reported that it is important for them and their own mental wellbeing, that they can specifically access Kooth.

It was important for young people that they are able to access Kooth at any time of day (73%) and on their phone or another internet-connected device (73%).

92% of education staff¹² said that they think digital services can support children and young people's mental wellbeing in their school districts. According to teachers who provided feedback, the most valuable features of Kooth are easy for students to access from anytime/anywhere given the digital nature and no cost for students to access were the most valuable features of Kooth for students.



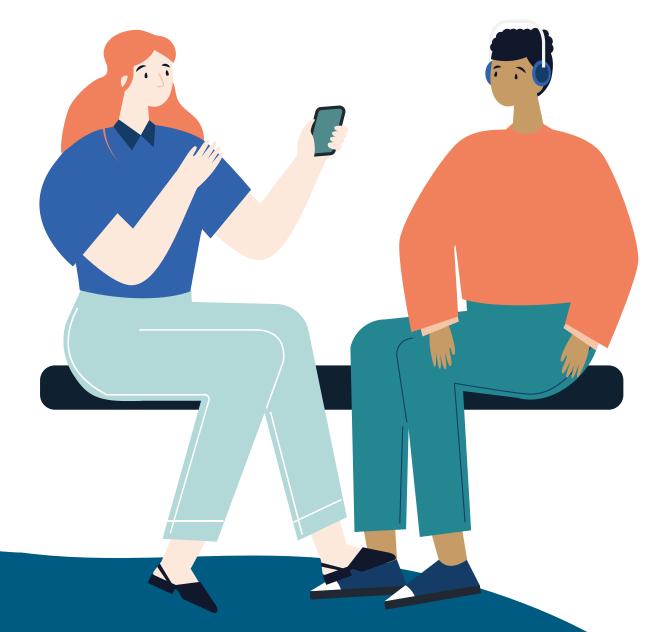
"I think programs like Kooth and telehealth options can be very helpful for some students and provide them access to support they wouldn't otherwise have."

Superintendent, from Pennsylvania



"They use this [digital] method for everything and in rural areas they do not have access immediately to talk to someone."

Principal, from Pennsylvania



¹²From a sample of 61 staff (teachers, guidance counselors, principals, and superintendents) from school districts where Kooth is available who provided survey feedback on Kooth.

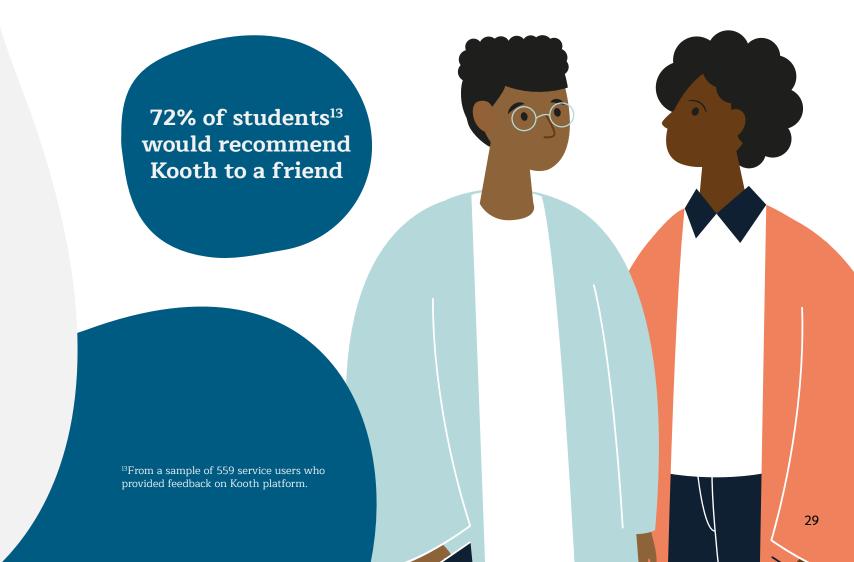
(2) How Kooth reduces the need for downstream intervention with early help

While social, emotional, behavioral, and mental health needs have always existed, in the post-pandemic era, there has been a surge in the need for children and young people (23). Those who had been exposed to trauma, financial or social adversity, and adverse childhood experiences (ACEs) are at higher risk of mental health and wellbeing needs, but during and since the COVID-19 pandemic have been particularly vulnerable to worsening mental and behavioral health. This is a trend that has been echoed in the United Kingdom (UK) and recognized within the Kooth UK service (24), with young people being particularly isolated and alienated. Digital wellbeing support however is a constant and can provide consistent and stable, reliable support during societal changes or lockdowns, something invaluable through the pandemic, but also relates to periods of school closure, such as school holidays.

The CDC reports that "for adolescents, depression, substance use and suicide are important concerns" (25), with 40% of students (in Grades 6, 8, 10 and 12) experiencing persistent feelings of sadness or depression and 19% of the same age group reported to have seriously considered attempting suicide (5).

Kooth provides young people with choice, autonomy and agency

By providing a <u>range of access routes</u> for young people to get help, Kooth aims to support students with varying levels of need, as well as differing readiness and willingness to engage. This is reflected in survey responses from students as the primary reason that **45% are using Kooth is to get mental wellbeing help that does not require them to go to a counselor** (e.g., seeing someone face-to-face). **Kooth provides a relatable and approachable 'front door'** to wellbeing and mental health services, with little physical, fiscal or societal barriers to access. Low-intensity support can increase willingness and openness to engage in additional help-seeking behaviors and improve youth's motivation, autonomy and self-efficacy to seek additional support, engage with self-directed care or learn through behavioral health content. As Kooth is integrated with local on-the-ground services, for those who need more integrated or higher-intensity support, it provides an entry point for effective triage and referral to specialist services where needed.



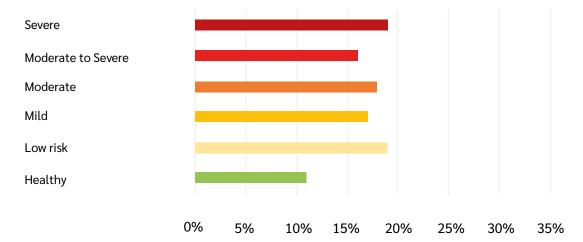
Indicators of psychological distress of Pennsylvania youth

Across all students who completed the measure of need questionnaire on registration, 21% presented with a severe level of psychological distress¹⁴.

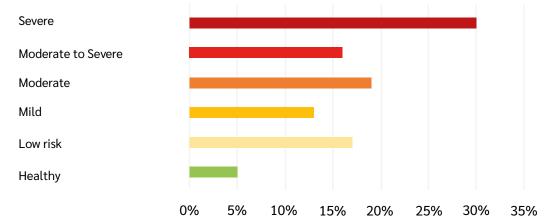
As seen in Figure 3, when we examine the levels of psychological distress by different engagement mechanisms, we see that there is an effect on who is signing up. For students who signed up on the day of a 'Kooth Day' - where they typically sign up in a school environment with peers and teachers around - there is a greater diversity of needs. In comparison, when we look at young people's psychological distress scores for registrations outside of the 'Kooth Days', we see a trend towards higher disclosed psychological distress scores. This observation is supported by students' scores in school districts that did not have a 'Kooth Day', as their data is more closely matched to psychological distress scores on registration that we observe in the UK. There could be various reasons for this difference, but this is positive for Kooth's whole school approach to providing access to mental health and wellbeing services: it is encouraging to see that students who do not have direct needs at the time of the registration are now aware of Kooth and will be able to access the services earlier, rather than just when in states of psychological distress. The wider impacts of providing support to students who are not in distress are further discussed in later stages of the report.

¹⁴Score above 24 on CORE-10 or YP-CORE measure.

Registration on date of 'Kooth Day'



Registration not on the date of 'Kooth Day'



Registration from districts with no 'Kooth Day'

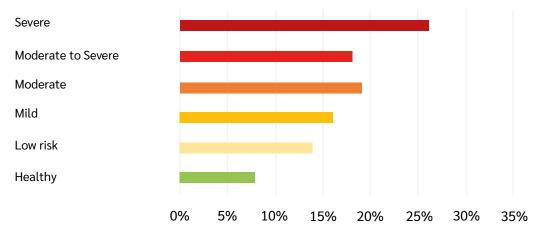


Figure 3: Bar charts showing the levels of psychological distress self-reported by students on sign up to Kooth, stratified by those who registered on a 'Kooth Day', not on a 'Kooth Day', and from a school district who did not have a 'Kooth Day'.

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What issues are youth presenting with on Kooth?

Presenting issues provides more information about what concerns or issues young people are facing and want to discuss in sessions with practitioners. **Anxiety or stress** was a prevalent presenting issue or concern (59%). Other common presenting issues included **self-harm** (24%), **family relationships** (19%) and **depression** or **sleep difficulties** (18%) (see Figure 4).

Top 10 Presenting Issues

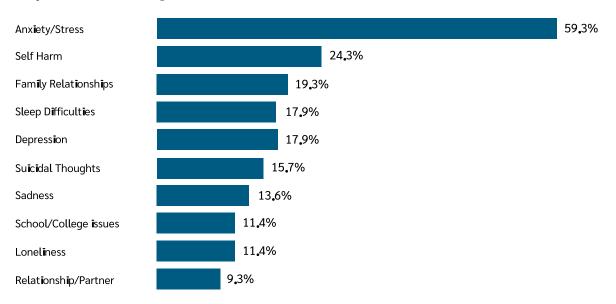


Figure 4: A bar chart showing the top ten presenting issues for youth in school districts where Kooth was available in Pennsylvania. Bars represent the percentages of occurrences, where a service user could present with multiple presenting issues.

As Kooth encourages users to seek help on their own terms, we also see a range of other needs that are not as prevalent, though just as important to Kooth, as those listed in Figure 4; for example, 5% of students presented with concerns with body image and 4% with eating difficulties. Together, these findings indicate that there is a high diversity of needs of young people engaging with Kooth, demonstrating that digital services are a good way to get young people to engage, regardless of their needs. Providing a person-centered service ensures that the content and practitioners are able to support young people in the ways they need, utilizing a range of techniques.

Ways youth in Pennsylvania are engaging with Kooth: The Kooth Pathways

Alongside 1-to-1 support from a practitioner, **Kooth provides a range of support**, focusing on the person as an individual and **giving young people choice and autonomy in their wellbeing support journey.** Kooth's support ranges from early help to crisis management and safety planning.

With guidance from practitioners through triage chats, the young person can determine which pathway is suitable for them. There is a level of stepped-up care for those who have higher needs, but choice and autonomy are always given to the young person.

88% of students responding to the survey said that they have got what they need or found what they were looking for on Kooth, either somewhat, mostly or completely¹⁵.

In the first five months since the launch of the pilot program, triage chats have resulted in practitioners recommending community and self-directed support to 58% of young people, asynchronous messaging to 60%, single-session chats to 46%, and structured work¹⁶ to 23%. Triage chats enable quick assessment and referral of users, giving them guidance to what will be most useful to them at that time.

Service users that had a booked chat with a practitioner (either single-session or structured work) were asked to provide feedback. Of the 35 service users who provided feedback:

- 93% felt heard, understood and respected
- 91% found the session helpful, and
- 86% would recommend chat to a friend

This is highly positive as it demonstrates that the therapeutic support provided by practitioners is well-received and aligned with young people's expectations and needs.

¹⁵From a logic follow-up question asked to a sub-sample of 17 survey respondents who reported "no particular reason, wanted to have a look around" or "it's part of my assigned work for class" as their primary reason for using Kooth.

¹⁶In some cases, data on triage recommendations from chat is missing (n=7) and service users did not turn up to their triage chat (n=23).

Risk assessment and management

A safe and effective risk management and monitoring system is critical. Risk relates to risk to the young person (from others or oneself) and risk to others. As seen in the PAYS 2021 report, 19% of students have seriously considered attempting suicide, and therefore there is an important requirement for assessing and managing risk within any behavioral health service. Importantly, early assessment of risk results in a more timely and appropriate referral of an individual to a service that is best equipped to support them (discussed in Section 3 of this report).

The Kooth Team will identify risk through three main channels on the Kooth platform:

- 1. Moderation of student activities (journal, goals, article submission/response, or discussion board submission/response)
- 2. A message with a member of the Kooth Team, where the Kooth Team will respond to within 24 hours
- 3. A triage or booked chat with a counselor

Levels of risk:

- 1. **GREEN Risk:** no identified risk
- 2. **AMBER Risk:** low-moderate or potential for risk to self or others (for example: intermittent thoughts of self-harm, history of abuse)
- 3. **RED Risk:** high risk or imminent risk to self or other (for example, severe self-harm, suicidal ideation with intent, evidence of harmful or risk-taking behaviors, current abuse)

RAG statuses are assigned to users regardless of pathways and trigger safeguarding processes, where required. Since the launch of the pilot program up to 31st March 2023, the following low-moderate and high risk statuses have been assigned to service users: **72** AMBER **Risk and 25 RED Risk**. Risk is dynamic and can be affected by circumstances that can change over the briefest of time frames and therefore, requires frequent review. Changes to an individual's

RAG status are documented in case notes, and RAG status may be used by practitioners during shifts to prioritize care, alongside other evidence. Where a concern is identified, practitioners are required to follow the policies and procedures that Kooth has in place to ensure appropriate action is taken to safeguard the user. Further detail on Kooth's safeguarding and referral pathway, that is bespoke to each school district, is discussed in Section 3 of this report.

Safety Planning:

The Kooth safety plan is a tool for helping service users manage moments of crisis (e.g. when they are at risk). It is also about supporting and challenging our service users to be safer, think safer and understand what safer looks like. We can use it as a reference point for service users to know where they can find crisis support outside of Kooth in an engaging and meaningful way.

Online safety planning may not be completed in one go. It may be developed over a service user's entire engagement with Kooth. Safety plans are typically introduced when working with a user over a longer period of structured support and are worked on in a collaborative way with the user to develop their resilience and autonomy by referencing supportive techniques and resources they can use to manage their mental wellbeing outside of their support sessions. However, safety plans can also be used when working with users in a single session, as well as being introduced in a quick triage chat if appropriate.

Safety plans should be kept relevant/reviewed and updated. We aim to support, motivate, inspire and challenge service users to think safer.



How moderation ensures a safe positive virtual ecosystem

All content submitted on the Kooth platform is moderated. Moderation activities function to keep users safe and trigger safeguarding actions and it provides a risk management mechanism for users not having live chats. Guidance counselors who are referring to Kooth have stated that the moderation and safety of Kooth is a key way to address challenges with how students seek wellbeing advice currently.



"[Kooth provides] access to valid and vetted digital resources, rather than obtaining ideas from random online platforms."

Guidance Counselor, from Pennsylvania

Moderation also keeps the online community safe as it prevents information sharing, such as names or locations, and it prevents harmful or disrespectful posts from being shared. This fosters a positive virtual ecosystem where young people can safely express their emotions and support other users, with theorized benefits of digital altruism, improved mental health literacy, and reduced isolation and stigma. A case study of Kooth's moderation processes highlighted the importance of skilled moderators who have an intellectually and socially grounded skillset, with specialist knowledge to suitable navigate the online support. Continued work in Kooth with various academics is striving to improve the efficiency of Kooths moderation, this will improve user experiences as content will be presented on the platform quicker, but it will also detect risk quicker. Collaborative projects utilizing safe and ethical uses of artificial intelligence are underway.

2,666 pieces of service user content (article, comment, discussion) have been moderated; where 271 (10%) did not pass moderation. The content and submissions not passing moderation reiterate the importance of moderating content that enters both the community (Kooth public-facing) spaces and the self-directed support (private user-facing) spaces. Unlike with social media and unmoderated forums, safety enables trust in the content shared but also that users are interacting with one another in a safe way.

Kooth Pathways

Asynchronous support

Self guided

Peer support community CYP who create articles or forum discussions and

experience and participate peer discussion forums others.

Structured therapy

CYP who are offered a series

of chat sessions (up to 10) by

appointment with a named

practitioner.

Therapeutic content

CYP who read web-based content, including Kooth or user psycoeducational and creative content.

Responsive therapeutic support

CYP who have between one and ten sessions of chat with a Kooth worker over a non-specific time period, without being offered or accepting a structured series of chat sessions.

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Professional support

Kooth Community Pathway

Young people in the community pathway are users who read and engage with the community space and content. The virtual community space, like that on Kooth, is a space to explore one's emotions and identity, build relationships and alliances with other users and the platform, and learn (27). Learning about behavioral health and wellbeing, as well as receiving timely early peer support aims to reduce the downstream need for more specialist services, by providing both informational and emotional support, through direct suggestions to peers, and nondirect support through sharing their experiences with others (28).

An evaluation of the effectiveness of youth peer community support in Kooth (of the UK platform) showed **reductions in** psychological distress, suicidal ideation, reports of self-harm and improvements in feelings of hope, self-esteem and **loneliness** (29). We anticipate as the community elements of the US platform grow and evolve to see a similar impact on youths in PA.

Content can be generated by a young person using Kooth or a Kooth worker and can span from psychoeducational or behavioral health content to emotional expressions and self-exploration, to topics such as education or hobbies. All content in this arena is anonymous and moderated, including any comments posted to the articles or forums. Kooth developed the Peer Online Community Experience Measure (POCEM) (30) is an experience measure which captures how helpful content in this space is to users.

86% of users found content on Kooth helpful¹⁷

similar age who are going through similar accept emotions and reduce isolation and

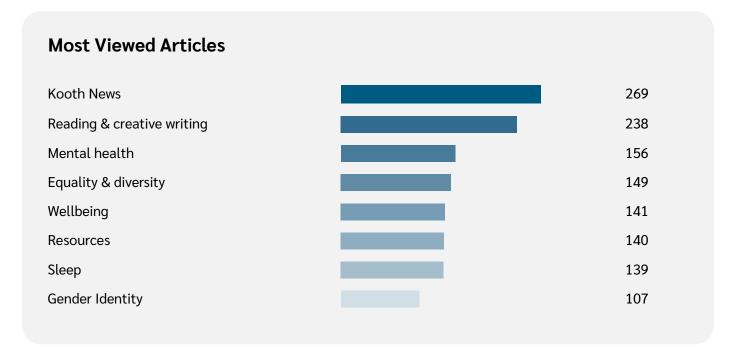
39

As the community is anonymous this provides a space to safely explore and express emotions, experience and find commonalities with other users, of a experiences. This helps normalize and loneliness.

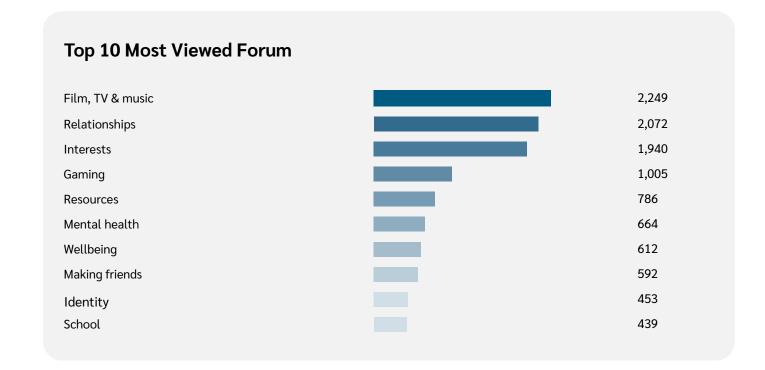
[&]quot;I like having anonymous support, considering there's things that I'd like to keep to myself, but also share with others to maybe get help with it. I feel judged when I talk about my problems so if I talk about them anonymously it really helps." Student, 15, 9th Grade

¹⁷ This relates to users providing feedback on content. Rating content as helpful relates to a score of 4 or more on Peer Online Community Experience Measure (POCEM).

In the first five months of Kooth being available since the pilot program launched in early November 2022, 46 articles have been created by service users, with a total of 95 comments and 2,136 views. Highly popular articles were: "Stress and Sleep: how to Manage", "Trauma Awareness", "Experiencing Depression when You're by Yourself" and "Peer Pressure: how to say no".



Further, on the platform 441 forum posts have been created with 1,815 comments and **17,127 views.** Popular topics included hobbies and popular culture, as well as relationship discussions and mental health and wellbeing discussions.

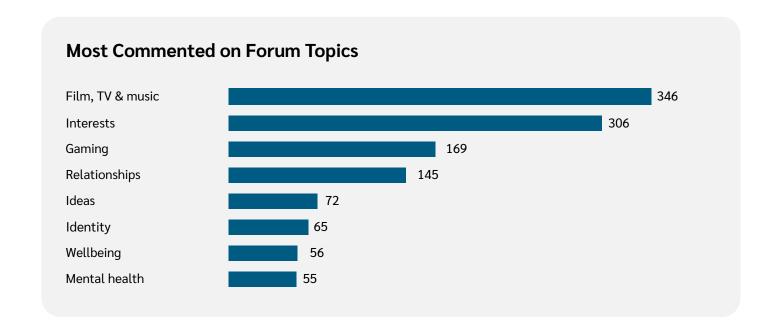






"My ideal support is posting in things like forums and having others who have had the same issues respond and help me come to a solution on my issue"

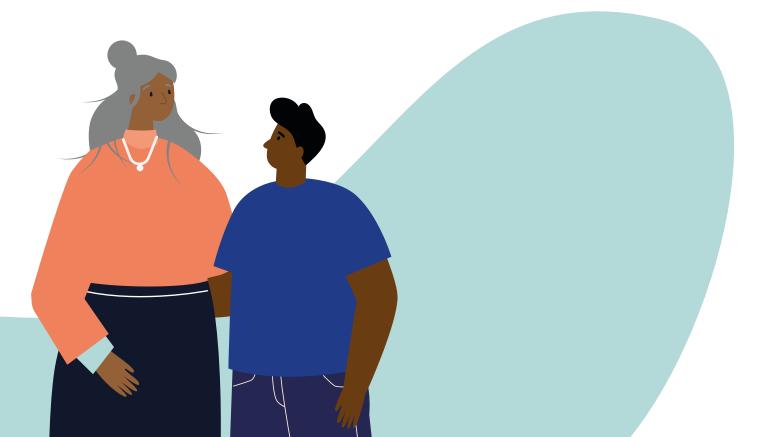
Student, 15, 10th Grade



66

"[My ideal support] could involve anyone who can help with the situation or problems."

Student, 17, 11th Grade



Kooth Self-directed Pathway

Young people in the self-directed pathway on Kooth engage with therapeutic tools, these are things like mini activities, emotions journaling, goal-setting and monitoring (Goal Based Outcome - GBO). Alongside this, these users commonly also engage with the community content. All submissions in this personal space are moderated, ensuring these private engagement methods with Kooth are safe.

Self-directed activities promote choice and agency for young people, something often lacking in traditional face-to-face wellbeing services. These elements are important when we consider the mechanisms of change seen on Kooth.

Emotional journaling is useful for reflecting on your emotions and how your emotions link to your behaviors, and what coping strategies you could employ to help process and understand your emotions. The emotions journal is highly popular and something that young people request evolving and thus we are exploring how to make this even more interactive. All journal entries are moderated, so if risky entries are added, this triggers a safeguarding procedure. Practitioners can then intervene quickly and either refer to other services or support the young person in a suitable manner.

It is also a useful tool for practitioners to be able to see the emotional states of users throughout the last week for example. Currently, in the tool, young people can log their feelings (by selecting an emoji) with their journal entries.

Feelings Logged in Emotions Journals within the Period

Neutral	Positive		Negative			
I'm not sure	Slightly smiling	Нарру	Calm	Upset	Angry	Worried
22%	24%	22%	17%	6%	4%	4%

Figure 5: Frequency of emotions journal submissions by users.

Self-directed engagement over the last 5 months:

- 4,995 emotions journal entries created by 3,537 unique users
- 16% of the journal entries submitted were attached to negative feelings (feeling angry, worried or upset)
- Mini activities have been popular, with 1,466 views, with activities such as 'Make your own coping box', 'Send a letter to someone', 'Improving your bedtime routine', and 'Create a good mood playlist'.
- 1,005 goals set by 757 unique users, in topics relating to 'School, college or training', Self-care', and 'Confidence and self-acceptance'.

The self-directed features on Kooth, that are in the digital platform are there to encourage young people to be mindful and have a battery of coping strategies to use when not online on Kooth. Mini activities often result in a physical or activity-based strategy, such as creating a mood playlist - this is fairly accessible as lots of young people listen and create playlists and is very popular on Kooth. Other activities such as making a coping box is useful and can be used by young people when they feel they need support, comfort or distraction.

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"When I saw the mini-activities, I was very intrigued and I think this is really cool. I also like the personal journal and just being able to write about your feelings to sort your life out."

Student, 16, 10th Grade

Goal setting helps young people work towards their aims and helps them track and see their progress. Goals are unique to each user but can be categorized into a taxonomy of goals, and in the last five months, students have set goals in topics relating to 'School, college or training', Self-care', 'Confidence and self-acceptance', 'Improving relationships' and 'Career aspirations'. Goal setting is not only a useful tool to help young people reflect on what they would like to improve upon but also a positive way to measure change and impact. Self-directed features and tools are also useful for young people who are engaging in single-session or structured chats with a practitioner. Goals are commonly set collaboratively in chat sessions with practitioners and young people are encouraged to engage with the self-directed features as well as content on the platform; this supplements and enriches the direct support from a practitioner.

Kooth Responsive Pathway

Young people in the responsive pathway on Kooth use the platform when needed, dropping in and out to seek advice when required. These users might engage with the community content, but they also request and receive booked single-session chats. A session on Kooth is approximately 50-60 minutes of synchronous 1-to-1 live chat with a trained practitioner. In these sessions, the practitioner, where appropriate, uses the Session Wants and Needs Outcome Measure (SWAN-OM) (31,32). This tool and outcome measure enables the user and the practitioner to align on the young person's in-session goals and track the process at the end of the session. Longer-term goals can be set using GBOs. Presenting concerns or issues are recorded along with case notes. These young people are encouraged to engage in the tools on the platform.



Dr Jessica Schleider discusses what single-session interventions are and how they improve mental health in youths:

Single session interventions (SSIs) offer a uniquely sustainable, evidence-based path toward promoting students' ability to access effective mental health care, when and where they need it most.

SSIs are defined as "structured programs that intentionally involve only one visit or encounter with a clinic, provider, or program; they may serve as stand-alone or adjunctive clinical services" (Schleider et al., 2020a). Importantly, SSIs are designed for a "one-at-a-time" approach to intervention: Although they may be completed on multiple occasions or as adjuncts to intentionally longer-term care, they are designed such that any individual session holds the potential to yield some degree of positive, meaningful change (Dryden, 2022; Schleider et al., 2020a). That is, SSIs acknowledge the dual realities that any given session might be someone's last (whether or not they want or might benefit from additional support), and that any single-session can nonetheless yield meaningful benefit. Often, SSIs target core mechanisms of longer-term mental health interventions, such as a program teaching a single evidence-based treatment strategy for depression (behavioral activation; selfcompassion). However, their flexibility

and brevity renders them inherently more scalable and lower-cost than their multi-session counterparts. SSIs may be delivered by trained providers or via digital, self-guided programs, and within diverse settings, from clinics to schools to smartphones.

Can SSIs improve youth mental health and wellbeing?

SSIs have helped improve diverse youth mental health outcomes, from social connectedness to crisis resource uptake to substance use and depression. SSIs have increased motivation to empathize with others, empathic accuracy, and the number of friendships in college students (35); decreased alcohol consumption among individuals with alcohol use disorder (36); decreased self-hatred and increased intentions to stop self-harming in youth with histories of non-suicidal self-injury (37–39); doubled uptake rates of mental health crisis resources among young people identified as at-risk within social media platforms (40); and produced clinically significant improvements in pain catastrophizing, pain intensity, and pain interference in adults with chronic lower back pain, with non-inferior effects to

In a randomized trial including 2,452 U.S. adolescents with elevated depressive symptoms, two digital, self-guided SSIs (one teaching behavioral activation; another teaching that personal characteristics are malleable) significantly reduced three-month depressive symptoms and hopelessness versus a control program designed to mimic supportive therapy (42). In other randomized trials of the same SSIs, reductions in depression and anxiety symptoms have extended across 4–9-month follow-ups in clinical and community samples alike (43,44). In a meta-analysis of 50 randomized-controlled trials (45), SSIs for youth mental health problems demonstrated a significant beneficial effect compared to control conditions¹⁸. SSI effects were consistent across prevention and treatment trials and regardless of participants' diagnostic status, suggesting SSIs' ability to benefit youth regardless of symptom severity. Further, significant SSI effects emerged even for SSIs that were self-guided (e.g., digital interventions) that involved no therapist (g= .32). Numerically, SSIs' effects are slightly smaller than those for multi-session, evidence-based youth treatments¹⁹ (46)—but their relative accessibility may allow for broader, faster public health impact.

Today, Kooth is one of the few—if not the only—digital mental health company that has fully integrated single-session therapy approaches into their platform to support student mental health. This sets Kooth apart as a uniquely flexible, user-friendly, accessible support for young people, capitalizing on SSI-related research advances and helping to ensure youth have access to support at precise points of need.

Meet the expert

Dr Jessica Schleider



Dr. Jessica L. Schleider is the founder and director of the Lab for Scalable Mental Health. She is an internationally-recognized leader in research on single-session interventions for youth mental health.

Find out more about Jessica in the expert profiles on page 70.

 $^{^{18}}$ g = .32; reflecting a "small-to-medium" overall effect, with follow-up periods ranging from two weeks to 24 months. 19 Mean q = .46 for treatments lasting a mean of 16 sessions.



"I like that I can use [Kooth] on my own time, as I have a very rigid schedule."

Student, 17, 11th Grade



Single sessions in Kooth provide opportunities to see a higher number of students, something that is beneficial when there is an increased need and unmet resource allocation.

"There is a variety of mental health services at the school, however, there isn't enough social workers to go around. [There is an] overabundance of students with issues."

Teacher, Wyoming Area

Single sessions provide a one-at-a-time therapy, where a solution focussed and goal-based approach is taken. Young people particularly like this type of support as it fits in with their schedules and is not a big commitment. This means that lots of students can be seen quickly, getting what they need at that point in time, and returning for another session if and when they need it.

Prior to single-session chats, the Sessions Wants and Needs Outcome Measure (SWAN-OM) asks young people why they have come to a session. During the first five months of the pilot program, insights from the SWAN-OM indicate young people came to the chat to 'feel listened to', 'feel better', 'understand my feelings and/or behaviors' and 'find ways I can help myself' as seen in Figure 6.

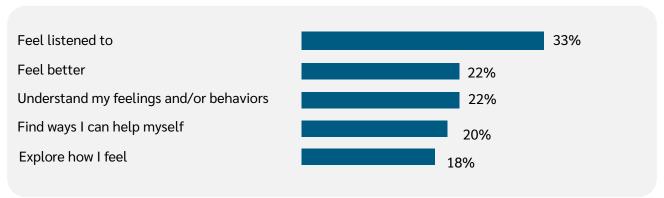
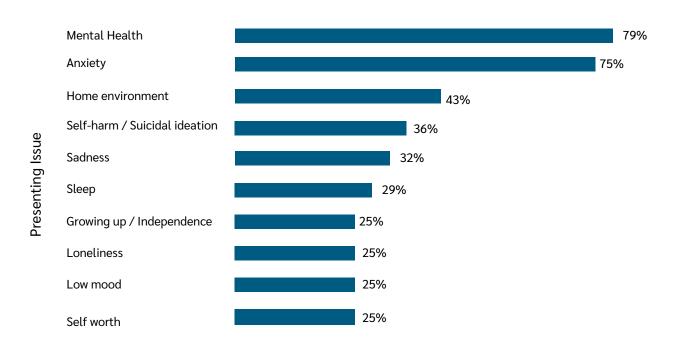


Figure 6: A bar chart showing the top five reasons why students came to a chat session (pre-measure item selection from the Session Wants and Needs Outcome Measure). Bars represent percentages of occurrences, where a service user could select up to three options.

Kooth Structured Pathway

Young people in structured support are users who regularly engage with Kooth and who receive 1-to-1 sessions with a named practitioner, usually on a weekly basis for 4 to 10 sessions. Assessments may be done at the start of the sessions, at the discretion of the practitioner, using the YP-CORE or the CORE-10 (depending on the age of the young person). These users might engage with the community content and are encouraged to engage in the tools on the platform. Presenting concerns or issues are recorded along with case notes.

In the first five months of the pilot program, for young people that were recommended a structured pathway, 21% of users had been assigned 'Red' risk status, 57% 'Amber' and 21% 'Green'. Mental health (79%) was the most prevalent presenting issue recorded during the triage chat, but other presenting issues were Anxiety (75%), home environment (43%), self-harm or suicidality (36%) and sadness (32%) (see Figure 7).



Percentage of users recommended a structure chat following triage

Figure 7. Prevalence of presenting issues among students were recommended a structured chat following a triage chat on Kooth.

Asynchronous support

This type of support and contact with practitioners is available across all Kooth pathways. In the first five months of the pilot program, **568 students messaged the Kooth team inbox. A total of 1,478 messages have been exchanged, 518 of which were therapeutic messages sent by practitioners.** Asynchronous messaging through Kooth is a convenient and popular way to receive direct support or interactions with a practitioner.

"[The benefits of Kooth over other types of support I can access is]

I see how it can be available anytime and easier for people to
commit to and schedule."

Student, 12th Grade

"People with social anxiety or [people who] are ashamed of them being depressed or anxious may have trouble talking to a therapist in real life and having anonymous or just online chats with somebody who can help them get through it, or just be there for them to show someone cares can help wonders."

Student, 15, 10th Grade

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Case Study

Demographics

16 year old male from Pennsylvania, residing with his siblings and biological parents.

Presenting Issues

The service user accessed Kooth to address underlying inner monologues, intrusive thoughts, and negative automatic thoughts. Further, he disclosed needing to identify ways to cope with being triggered. The service user was able to identify feelings around rage, frustration, and irritation being the most common emotional responses to situations (mainly involving interactions with family and friends). These interactions reinforced a narrative the service user created about being a "blacksheep." The service user was able to depict the flooding that often occurs as paralleled triggering events would occur with his peers resulting in the same emotional dysregulation (escalation to rage). The service user identified a goal of becoming more aware of other emotions (outside of comfort emotions i.e. rage, frustration, irritation), and was able to explore this within booked chats. Further, the service user was able to identify his cycle of escalation, namely, when triggered, he processes interactions as disrespect, which then provokes rage, frustration and irritability. SU was able to integrate coping skills to resolve triggers ie box breathing, and report on efficacy in booked chat sessions.

Interventions

Included automatic thought recording, cognitive distortion challenging, mindfulness exercises (as a form of coping i.e. box breathing), chronicling the cycle of emotive dysregulation, assertiveness, and reflection of coping skill integration.

Integration with local services (referals)

Member did disclose potential child abuse happening within his home, which was reported to PA Childline, representatives from the state were dispatched to the service user's home.

Progress

The service user made significant strides while in booked chats. The service user was able to become more vulnerable and open. The service user was able to identify triggers that provoked emotional dysregulation, and was able to integrate coping skills to de-escalate. SU was able to become more mindful of the process of de-escalation to maintain self in interactions that would have otherwise escalated. Further, the service user was able to challenge the narrative held about being the "blacksheep" of the family.

Feedback

The service user continuously shared gratitude towards the end of booked chats. The service user seemed genuinely invested in learning coping skills and integrating them. The service user was informed that a representative from the state would be coming to their home to talk to their mom, the service user was informed about the working partnership, relayed a sense of relief that change is possible and relayed a "Thank you!" within a quick chat. The service user responded 'a lot' to the question: 'I felt heard, understood and respected' and that they would recommend to a friend.



3) How Kooth enables appropriate use of other services

Digital as a front door to seek appropriate and timely support elsewhere

Kooth is well placed to positively impact the healthcare system through the provision of direct wellbeing support, behavioral health learning and community peer-to-peer support as well as appropriate referrals. To understand how Kooth impacts the wider systems, researchers and clinical experts created an early Kooth Theory of System Change. Kooth provides young people with knowledge and skills that improve their readiness, engagement, and appropriate use of other healthcare services. Additionally, Kooth delivers early intervention strategies and sufficiently supports young people with mild to moderate needs, reducing the demand on primary care physicians, inpatient services, emergency services, and crisis helplines. Alongside this, Kooth provides wellbeing support in the moment as well as appropriate and timely referrals to other services, integrating into local communities to provide a network of support. It is further theorized in the full Kooth Theory of System Change report that these benefits facilitate wider healthcare system impacts, reductions in judicial system needs, improved education-related outcomes, and workplace prospects, as well as such as improvements in service capacity and cost-effectiveness of government initiatives.

of superintendents and principals said they were confident or very confident that Kooth will improve rapid escalation of support for students in crisis²⁰

"If students can get plugged into mental health services that help them regulate, manage, and/or overcome mental health issues at the tier one or tier two level, then they can prevent those issues from escalating or becoming unmanageable."

Superintendent, from Pennsylvania

Kooth's referral to other services

Kooth works in an integrated manner - even though Kooth is digital, we champion for joined-up working with local on-the-ground services as well as national services where appropriate. Each school district has a bespoke safeguarding and referral pathway, which has been co-created and determined with guidance counselors in each district. For example, for each district, we hold and are ready to engage with where appropriate and deemed necessary; crisis line services, local hospitals and police, and school support (guidance counselors, prevention support teams, campus police and or principles). Some districts also have additional resources they would like us to refer to. Integrating in this way enables Kooth to prove safe and timely support to young people where necessary.

From recorded triage chats, the following recommendations have been made:

- 35 Amber risk users, of which 14 were referred outside of Kooth
- 14 Red risk users, of which 12 were referred outside of Kooth



"Referring students out for mental health services is a recognition of the complexity of their needs and a commitment to their well-being and success. It's also important to acknowledge that collaborating with community partners is crucial in ensuring students have access to a comprehensive range of mental health services and support that meet their unique needs."

Tammy Ramos, LCSW, Clinical Lead, Kooth US

So far, we have referred students outside of Kooth to school counselors, social workers, Safe2Say, Crisis Text, Non-Profit Guidance Centers, and local emergency services. Integrating digital scalable solutions to mental health and wellbeing needs enables rapid and widespread referrals, regardless of locality and time of day. Kooth does not only provide appropriate support, but also appropriately referrals, where required. This joined-up approach means that young people are safer, our practitioners are well-supported, and critically reassures and enables trust in Kooth for school staff who refer students to the service.

²⁰From a sample of 12 who responded to our survey.

4) How Kooth impacts the school system, at a student and organizational level

What does our early Theory of System Change tell us about the impact of Kooth on the wider system?

Kooth's whole-school approach to mental wellbeing provides students with more equitable access to behavioral health learning and mental health services. To understand the longer-term impacts of this, Kooth researchers and clinical experts created an early Theory of System Change. A supplementary report describes the full Theory of System Change.

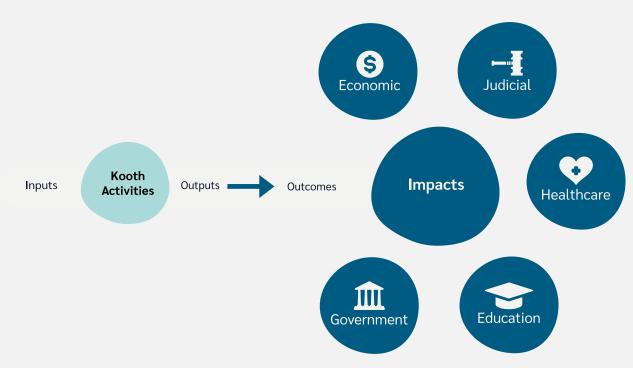


Figure 8: A visual representation of the ToC, with a focus on the systemic impacts.

With a focus on Educational Impact...

The Theory of System Change theorizes that Kooth facilitates long-term change by improving student wellbeing. This is supported by early indicators from a diary study that show improvements in reported self-esteem and mood (see Section: In the upcoming months...). These improvements may subsequently improve students' abilities and motivations to engage with the educational system. This change may be observed through improved school attendance, classroom behavior, academic performance, and importantly, school completion rates.

"We have had a huge increase in the number of requests for 504 plans. Many of our truancy issues have connections to mental health reported by the students and/or family."

Superintendent, from Pennsylvania

"Poor mental wellbeing has had an effect in the classroom with an increase in negative behaviors"

Principal, from Pennsylvania

57

79% of students²² said that Kooth is a useful source of support

These changes may lead to impacts at the organizational level such as improved resource allocation and improved staff functioning and satisfaction.

As part of the stakeholder survey feedback, we asked (1) teachers to report how confident they feel in discussing certain challenging topics or issues with students, as well as (2) principals and superintendents how confident they are that staff in their school (or district) are able to address concerns relating to these topics or issues (Table 2).

 \sim 56

 $^{^{22}}$ From a sample of 559 service users who provided feedback on Kooth platform.

'The Graduation Effect: How Education Impacts the Economy'

The Alliance for Excellent Education (All4Ed) has developed an online resource that demonstrates the positive impact of increasing Pennsylvania's high school graduation rate from 84.8% (based on the Class of 2015) to 90%. The report estimates that, the annual income from an additional 7,000+ graduates would lead to increases in state and local taxes, spending, and car and home sales resulting in:

- \$300 million in health-care cost saving to the state,
- \$140 million in economic growth, and
- 300 new jobs created.

As Kooth theorizes that, by improving the mental health and wellbeing of student-aged adolescents and young people, we will have a consequential effect on improving educational attendance, reduced presenteeism and engagement, thus improving graduation rates. As we are only five months into the pilot (at the time of writing), we do not have evidence as such to demonstrate these impacts, but this is a heavy focus for the Kooth Research teams, with the view to collaborate with local academics to evaluate and evidence this impact.

Click here to read the report.



"If their mind is not well, how can students use it properly to learn? This is similar to asking someone to run who doesn't have a healthy leg. The knock on consequences is more work on teachers which causes stress and frustration on teachers"

Principal, from Pennsylvania



100% of superintendents and principals thought that Kooth could, to some extent, help to increase students' engagement and concentration in school, and ultimately their academic outcomes²¹

²¹From a sample of 12 who responded to our survey

 58

	Teachers (n=40)	Principals and Superintendents (n=12)
Anxiety	63%	42%
Body image or eating concerns	43%	50%
Crisis (bereavement, violence, trauma, abuse)	55%	83%
Depression or low mood	63%	58%
Inattention and distractibility	55%	25%
Issues related to gender or sexual identity exploration and formation	33%	25%
Low self-esteem	50%	50%
Race-based hate	35%	50%

Table 2: Percentage of staff members who feel confident that they (teachers) or their school staff (principals and superintendents) are able to discuss or address concerns relating to certain issues with students in their school.

On average, half of the teachers do not feel confident in discussing mental health or well-being related challenging topics or issues with students. Similarly, half of the principals and superintendents do not feel confident that their staff are able to address concerns relating to these issues.

We did observe some differences in responses between teachers and school district staff: though 85% of principals and superintendent are confident in their staff's ability to address concerns relating to crisis, only 55% of teachers feel confident in discussing this topic with students. Teachers had least confidence in their ability to discuss issues related to gender or sexual identity exploration and formation with students (Table 2). The most common barrier that teachers reported encountering in terms of supporting students' mental wellbeing was the fear of overstepping boundaries with students (29%). If a student were to speak to them about their concerns with their mental wellbeing, 75% of teachers would refer students to another member of staff. While referral internal to schools can support some students, this does not provide a scalable and appropriate referral source for lots of students. At Kooth we aim to see this referral pathway transform from 'I would refer to another staff member' to 'I would refer to Kooth' as the pilot continues and integration with schools becomes more embedded.



"Knowing that there is somewhere or someone to turn to in times of crisis helps to alleviate anxiety [for our staff members].

I am sure that those students with successful experiences with Kooth will be better engaged in the academic environment"

Superintendent, from Pennsylvania

Kooth is a safe resource that teachers can use to overcome such barriers and provide to students experiencing these difficulties. Moreover, Kooth may also alleviate support staff and guidance counselor workload as a result of sufficiently supporting students with mild to moderate needs. These outcomes, combined with improved student behavior, may lead to improved staff functioning and satisfaction.

Furthermore, 98% of teachers surveyed during the pilot of Kooth felt that mental wellbeing is considered a priority to their school. As districts and schools prioritize student wellbeing, Kooth may contribute to increased school connectedness among students and staff leading to improved wider school culture.

Kooth researcher's aim to further investigate the theorized outcomes and impacts described in the Theory of System Change. As such, a larger evaluation aims to measure clinical change and economic outcomes within wider systems.

In the upcoming months...

Kooth will continue to pioneer for equity of access

As previously mentioned in this report, from February this year, students have been able to view the Kooth platform in Spanish. At this time, there was also a wider rollout of the language into other areas of the platform and students can submit content to articles and forums, as well as have the option to chat to a practitioner, in Spanish. As Kooth becomes more embedded in existing school districts, we expect to see an increasing number of users engaging with the platform in Spanish. Looking forward, Kooth plans to offer its services in other languages, further improving equitable access to support for those previously limited by language barriers.

Alongside this, as Kooth becomes more embedded into existing rural, suburban and urban school districts, we have an opportunity to demonstrate increased equity of access to groups traditionally underserved in the mental health care system, such as racial and ethnic minority groups and low-income persons. At the same time, The White House recently outlined the need for inclusive research to understand the different needs within these populations and therefore to determine how we can provide the support most effectively for all the communities Kooth aims to serve.



Kooth will engage with young people from PA; User engagement is a critical component of continuous product improvement

Fifteen young people located in Pennsylvania were recruited through DScout, a digital research platform, to participate in a one-week diary study. These individuals were given access to Kooth for the first time to use as they liked for up to one week and were remunerated \$85 for taking part. The findings (multiple choice, open form, video submissions) are analyzed and synthesized to inform future product design iterations. By observing and learning about how people experience the Kooth website, we are better equipped to improve their experience by designing for real user pain points and on any opportunities identified. In line with findings in the current report, early feedback results indicate that 95% of participants feel like Kooth could help them with their mental health and wellbeing, and 85% would recommend Kooth to a friend.

Kooth will continue to support rural school districts

Kooth recognises the unique complexities ad barrier that rural communities face when trying to access mental health and wellbeing support. As highlighted in this report, superintendents and principals raised the difficulties of hiring guidance counsellors in these areas as well as their school district size being expansive and therefore making it difficult to provide a fair and equitable service for all. Kooth will be working specifically with rural areas, as well as continuing to serve inner-city and metropolitan areas, to provide an integrated, but digital mental health and wellbeing platform that will benefit rural areas. The Kooth engagement teams working in these school districts will continue to integrate into school and community provision to enable an even more joined-up approach.

Kooth will continue laying the groundwork for early economic modeling

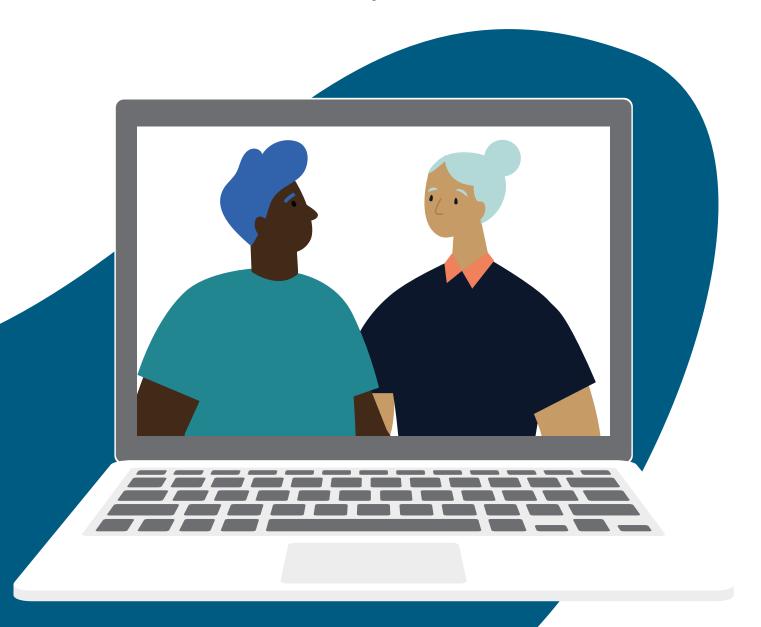
Kooth strives to provide cost-effective and equitable care to young people. By providing a suite of support options we support a range of young people, with different needs and requirements. As stated in our Theory of Change we theorize that Kooth has an impact on various wider 'systems', importantly healthcare, education and workforce potential, judicial and for governments to support value-based policy decisions.

We have early economic models that are currently assumptive and based on UK modeling but have a strong basis as an early model. Wider evidence supports this early model, such as the work conducted by the Alliance for Excellent Education (All4Ed), which is discussed above in Section 4. The report maps the positive effect of increased graduation rates, which Kooth theorizes to have a direct impact on, on improved economic outcomes within the state of Pennsylvania.

As we go forward we will be partnering up with medical insurers and academic institutions to provide a less assumptive model revision to map our economic impacts and cost-savings. Working in an integrated and collaborative way will be the most effective and rapid way to evidence the health and economic impacts of Kooth.

Kooth will continue to champion Single Sessions

Dr Jessica Schleider is currently developing an evaluation protocol of Kooth's single-sessions. The protocol recommends using a stepped-wedge design to measure the impact of single-session interventions on students' wellbeing. If the contract were to be renewed, the evaluation would take advantage of the fact that students in new school districts will be given access to Kooth. Students would complete a battery of measures before they have access to Kooth and again at certain intervals after some individuals have received single-session support on Kooth. This is an exciting opportunity to add to our understanding of the value of single-sessions on Kooth and contribute new knowledge to research in this field.



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Summary

The data in this report from the first five months of this pioneering pilot demonstrates the value, as well as the need, in having Kooth available as a digital mental health and wellbeing service across whole-school districts in Pennsylvania. Key education-based stakeholders in school districts involved in this pilot program have reiterated the increasing mental health needs of their students, which outstrip the current resource in many of their schools, and alongside leading academics, have shown support for Kooth as a digital platform to provide mental health and wellbeing support to their students. This report provides early evidence around how Kooth can (1) improve access to mental health and wellbeing services, (2) reduce the need for downstream intervention with early help, (3) enable the use of other services, and (4) impact the school system, at a student and organizational level.

By providing students with 24/7 digital access to self-therapy, peer support and professional support, without the need for referral and at no cost to the students, their parent/caregiver, or the school, Kooth overcomes many well-recognized barriers to mental health care for youth across Pennsylvania. As part of the pilot program so far, Kooth has integrated into 17 school districts and is therefore available to an estimated population of 92,184 students. As registrations have continued to increase, it is encouraging to see that Kooth has been able to engage typically harder-to-reach groups, providing an early indication that Kooth is well-placed to increase equitable access to populations traditionally underserved in mental health care.

Through providing a variety of support pathways, Kooth enables young people to receive the most appropriate and tailored support for their wants and needs. This utilizes practitioner time effectively and ensures young people are supported at the time of need. **Offering anonymity, flexibility, and choice in the support options on Kooth encourages autonomy and self-efficacy, which young people desire from wellbeing services.** Combining 1-1 professional support with peer support and behavioral health content and learning provides a positive virtual ecosystem for support, all in one digital space.

Alongside these support pathways, **Kooth provides appropriate and timely referrals to other services for those who need a more integrated or stepped-up level of care.** As part of the pilot program, Kooth has delivered clinical talks and meetings with on-the-ground services to integrate into these communities, to which students have been referred via Kooth.

Here, Kooth serves as an entry point for effective triage and referral, providing an effective network of support and a continued focus on the safety of our users.

Looking further ahead, the Theory of System Change outlines the potential impact of Kooth's whole school approach to mental wellbeing on long-term systemic change, both within and beyond the educational system. Through working together with school districts, Kooth aims to enable teachers and guidance counselors to place trust in the service and to confidently refer students to when they need. In line with feedback from school district staff, the Theory of System Change hypothesizes that engagement with Kooth may contribute to improved school attendance, completion, and academic performance from students, as well as improved resource allocation and staff satisfaction at an organizational level.

The support seen in this report from leading academics in adolescent mental health is highly encouraging, combining the knowledge from an industry that Kooth has, with over 22 years of experience supporting the NHS in the UK, alongside leading international academics provides a cutting-edge but also trusted space to innovate and develop on the existing platform and service provision and develop the platform US youths want and need. Excitingly, projects have already started in Kooth to bring in the Pennsylvania Youth's voice and experiences to improve their experience with the platform. This is highly important to remain relevant and appropriate for youths to ensure students return to the platform when needed. This report highlights the opportunities available for future developments to increasingly improve access to mental health and wellbeing care and integrate digital, scalable solutions into whole-school, state-wide approaches. Kooth is well-placed to partner and collaborate with US academics, legislators, and pagers on investigating and evidencing the health economic impacts, to demonstrate sustainable commissioning of Kooth.



"Having the opportunity to be one of the first pilot districts to access the Kooth platform provides my staff, my students and my community with a real, genuine opportunity to cut the legs out from underneath the stigma of accessing mental health services."

Superintendent, from Pennsylvania

Expert and Academic Profiles

Dr Jessica Schleider



Dr. Jessica L. Schleider is the founder and director of the Lab for Scalable Mental Health. She is an internationally-recognized leader in research on single-session interventions for youth mental health. Currently, she is an Assistant Professor of Psychology at Stony Brook University. In September 2023, Dr. Schleider and her Lab will move to Northwestern University, where she will serve as an Associate Professor of Medical Social Sciences in the Feinberg School of Medicine. Dr. Schleider completed her Ph.D. in Clinical Psychology at Harvard University, along with a Doctoral Internship in Clinical and Community Psychology at Yale School of Medicine. In support of her research on brief, scalable interventions for depression and anxiety in young people, she has secured >\$6 million in federal (NIH, NSF, HRSA), foundation, and industry grant funding as PI or Co-I. Dr. Schleider been recognized via numerous awards, including the NIH Director's Early Independence Award; the ABCT President's New Researcher Award; and the Society for a Science of Clinical Psychology's Susan Nolen-Hoeksema Early Career Research Award. Her work has also been featured in multiple media outlets, including The Wall Street Journal, The Washington Post, and The Atlantic, and in 2020 she was chosen as one of Forbes' 30 Under 30 in Healthcare. Dr. Schleider has published >95 scientific articles and book chapters. She has created or co-created seven open-access, single-session mental health programs, which have reached >35,000 teens and adults to date. Based on these programs, Dr. Schleider and her colleagues wrote a self-help workbook, The Growth Mindset Workbook for Teens. She also co-edited the Oxford Guide to Brief and Low-Intensity Interventions for Children and Young People and wrote a nonfiction book, LITTLE TREATMENTS, BIG EFFECTS (forthcoming, 2023) on how single-session interventions and meaningful moments can transform mental health.

Ellen Fitzsimmons-Craft, PhD, LP



Dr. Fitzsimmons-Craft is an Associate Professor of Psychiatry at Washington University School of Medicine and a licensed clinical psychologist. Dr. Fitzsimmons-Craft's research centers on the use of technology for mental health disorder screening, prevention, and treatment, with a particular emphasis on eating disorders. She is the recipient of a National Institute of Mental Health Career Development Award, the Associate Director of the mHealth Research Core of the Institute of Clinical and Translational Sciences at Washington University, and an Appointed Founding Member of the American Psychological Association Office of Health Care Innovation Advisory Committee for Mental Health Technology. Dr. Fitzsimmons-Craft has published more than 115 peer-reviewed publications in the mental health field that have been cited over 4,500 times in the literature. She is passionate about increasing access to scalable, evidence-based mental health services, collaborating with numerous non-profit organizations, state-wide agencies, and industry partners, including Kooth, in order to do so. Her work has been featured in high-profile media outlets including Wired, Forbes, Scientific American, Slate, and The Verge.

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Appendix: Methodology

Stakeholder recruitment

School and school district staff

Kooth designed separate surveys for teachers, guidance counselors, principals, and superintendents to understand their unique roles and the available opportunities for Kooth to address their individual challenges. The surveys were sent via email to the school district main contacts approximately four weeks after the go-live date for their district. The main contacts used their discretion in forwarding surveys to each staff group. Teachers and guidance counselors from 6 school districts responded to the surveys. Kooth did not collect district-level data from principals and superintendents to protect individual anonymity.

Students

Students were recruited through Kooth email communications and on Kooth via articles, forum posts, home feed cards, and practitioner messages to complete a survey that was described as 'Your Experience on Kooth: What works for you?". The surveys were advertised in both English and Spanish and students had the option to complete the survey in either English or Spanish. All respondents completed the survey in English. Some districts also opted to notify students of the surveys through district communications channels. Students who were eligible to complete the surveys had to be over the age of 14 and provide written informed consent. Students who completed the survey were entered into a prize draw for a chance to win one of five \$30 Amazon gift cards and were advised, if randomly selected, they would be contacted via email after May 31st, 2023.

Who are the young people who took part in the survey?

Data was collected up to 2nd of April 2023. A total of 46 respondents from 16 school districts; 35 of whom completed the whole survey. For some survey respondents, it was their first time using Kooth, whereas others had used Kooth more than 13 times.

Demographic characteristics of students²³ who took part in the survey

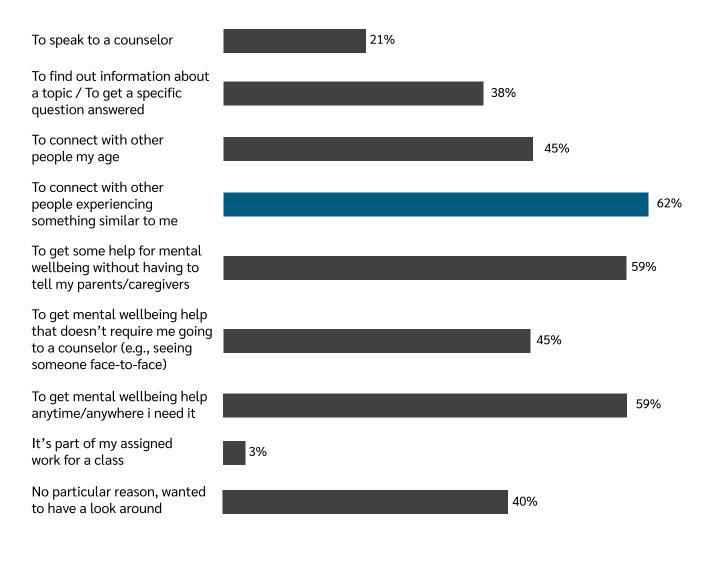
Gender Female Male Non-binary Prefer not to say	46% 32% 19% 3%
Age 14-16 17-19 20+	65% 32% 3%
Ethnicity Caucasian or White Multiracial Black or African American Hispanic or Latino Asian Prefer not to say	59% 14% 8% 8% 5% 5%

75

²³Data was not available for 9 students.

What are the primary reasons they are using Kooth?

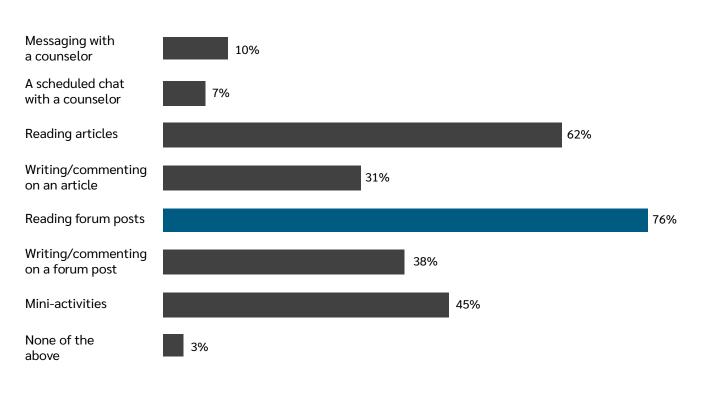
Self-reported Reasons for Using Kooth



(n=29 respondents)

What parts of Kooth have they engaged with?

Self-reported Engagement with Kooth Features



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(n=29 respondents)

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