Sharpen:
Sharpen is a comprehensive mental health platform that informs parents, educators and students about mental health and suicide risk using evidence-based content. Built over the course of 20 years in collaboration with researchers in public health and psychology the platform is used as gold-standard professional development training for districts and as emotional wellness support for families and for young people. Learn more at SharpenMinds.com or email Robyn Hussa Farrell directly at rfarrell@sharpenminds.com.

- Sharpen Leadership
- Sharpen Research
- Sharpen White Papers:
  - SEL vs MHL: There is a Difference
  - Suicide Prevention
  - US Dept of ED Guidelines

School Resource Mapping
- National Center for School Mental Health, University of Maryland

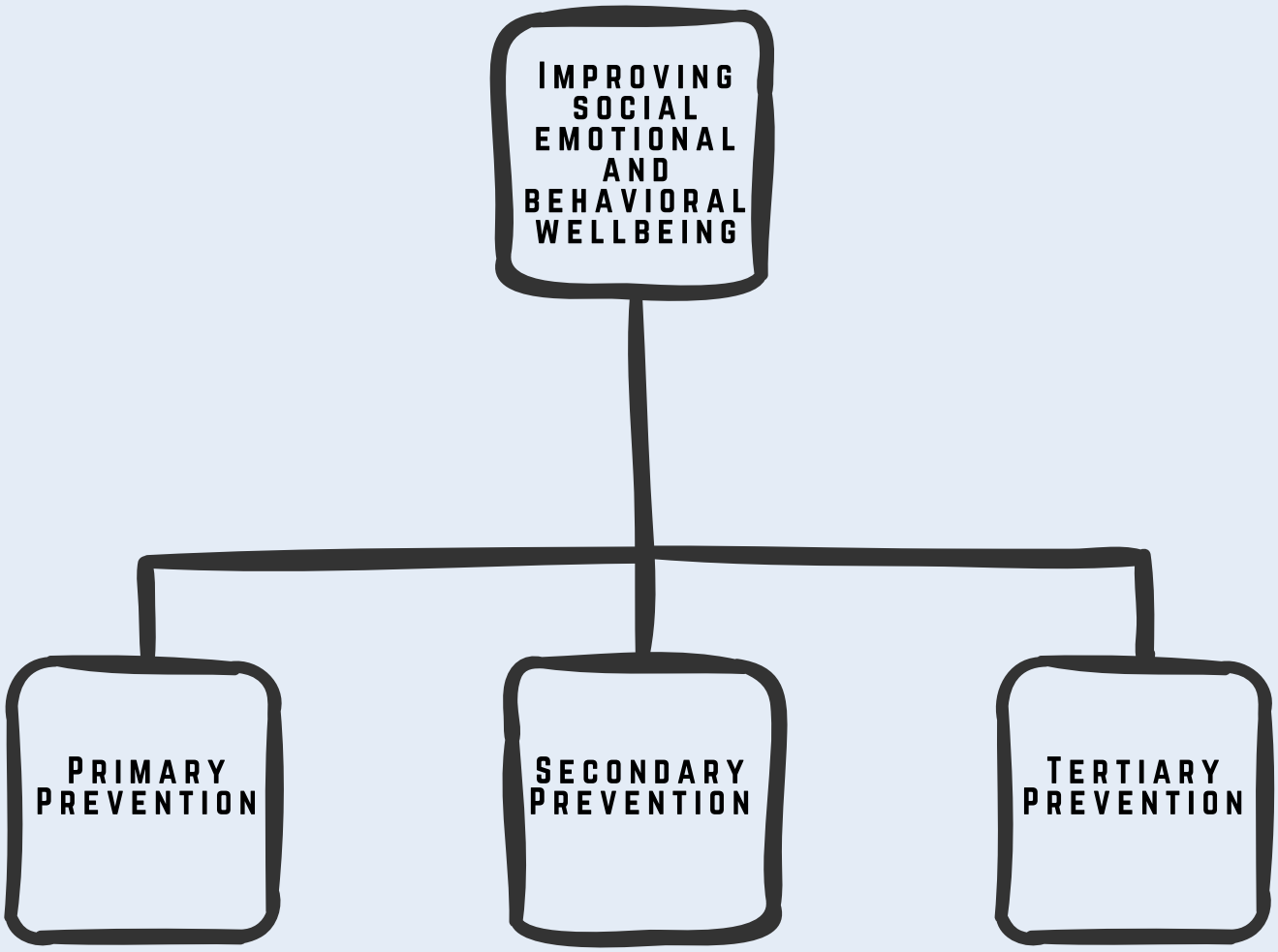
Suicide Prevention Resources
- Dr. Alex Karydi: Helping Kids Cope with Grief: https://www.sharpenminds.com/helping-children-teens
- Accompanying suicide prevention / postvention guide
- Sharpen's library includes over 20 hours of suicide prevention PD

Suicide Prevention Training
- 2021 Surgeon General Suicide Prevention Call To Action: https://www.hhs.gov/sites/default/files/sprc-call-to-action.pdf
- CONNECT Postvention training: https://theconnectprogram.org/available-services/
- Living Works (ASIST, SAFE TALK, etc.): https://www.livingworks.net/asist
- Suicide Prevention Resource Center: https://www.sprc.org/

Trauma-Informed Resources:
- 2020 CA Surgeon General's Report Roadmap for Resilience … https://osg.ca.gov/wp-content/uploads/sites/266/2020/12/Roadmap-For-Resilience_CA-Surgeon-Generals-Report-on-ACEs-Toxic-Stress-and-Health_12092020.pdf
- PACEs Network: https://www.pacesconnection.com/

Resiliency Technologies, Inc.

Building Resiliency Through Public Health Prevention Models



- Improving health literacy
- Decreasing stigma
- Social campaigns
- Peer stories of strength
- Psychoeducational modules
- Connection to Resources
- Building resiliency through evidence-based interventions (mindfulness / MBSR / trauma-informed programs / CBT-focused interventions, SEL)

- Screening & Assessments
- Early identification of those who are struggling
- Suicide and other prevention campaigns that engage in the conversation with those who are struggling
- Building resiliency skills
- Normalizing the daily conversation around mental health

- Connection to Treatment
- Appointment with a therapist
- Crisis intervention support
- 24-7 after-hours counseling
- Counseling or medical visits
- Symptom tracking
- Building resiliency through evidence-based interventions (mindfulness / MBSR / trauma-informed programs / CBT-focused interventions)

Our Logic Model

Building Protective Factors for Each Circle of Influence using Community-Based, Public Health Approaches

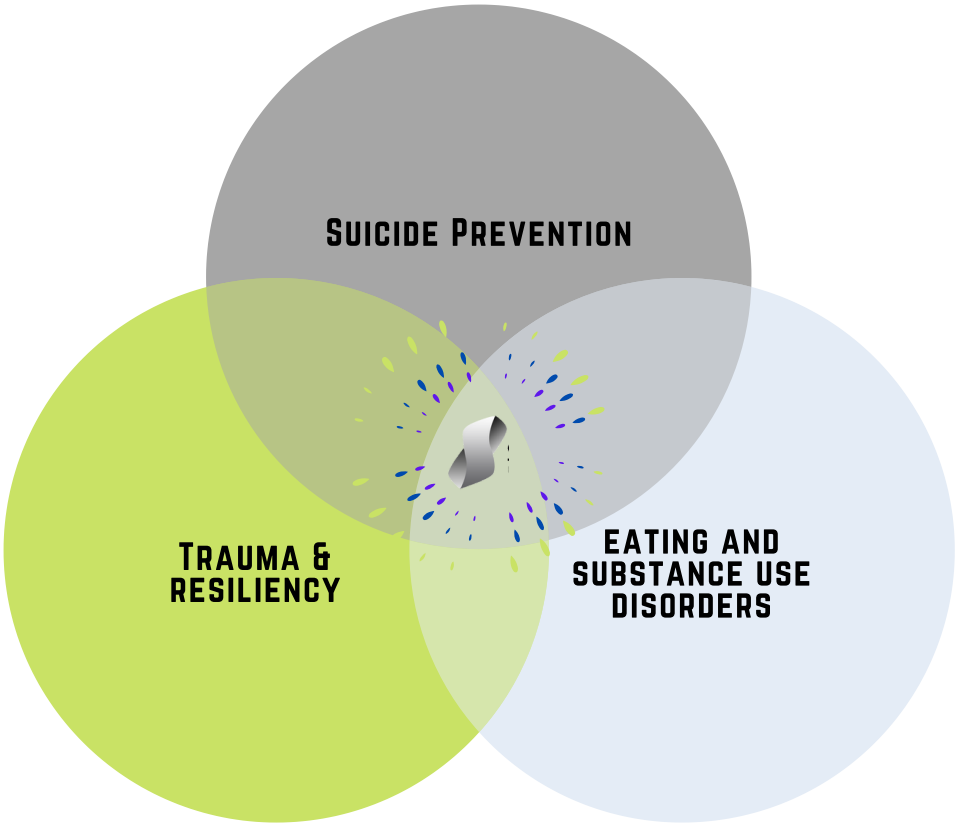
We adhere to the social-ecological model to better understand mental health and substance use disorders and the effect of potential prevention strategies. This model considers the complex interplay between individual, relationship, community, and societal factors. It allows us to understand the range of factors that put people at risk or protect them from suicide, trauma, mental health and substance use disorders.

RESILIENCY TECHNOLOGIES, INC.

PROTECTIVE FACTOR FRAMEWORK

In 1999 the U.S. Surgeon General declared mental health a public health epidemic. In order to effectively address it, we must follow public health guidelines through primary, secondary and tertiary prevention.

Sharpen ties together the following evidence-based models into our comprehensive, user-friendly framework.



TRAUMA, ACES & RESILIENCY

- ACEs focus
- Developed after working in Resilient Schools initiatives for 5+ years in collaboration with over 40 agency partners in child welfare, adverse childhood and mindfulness
- Published research in mindfulness
- Peer-resiliency models developed in K12 school settings over 8 years.
- Follows MBSR framework
- Build social-emotional skills

SUICIDE PREVENTION & POSTVENTION

- Developed after working with state and county-level suicide prevention teams
- ZERO Suicide framework increasing caring contacts and connectedness
- Rooted in evidence-based content stemming from Living Works and American Foundation for Suicide Prevention leadership
- Postvention focus includes improving safe messaging and media / community language
- Strength focused, peer resiliency like “Sources of Strength”

EATING & SUBSTANCE USE DISORDERS

- Published in Eating Disorders: Journal of Treatment and Prevention
- Developed after delivering live trainings in over 14 states
- Coordinated with SUDs treatment centers
- Collaborations with over 200 researchers, practitioners and individuals with lived experiences
- Led by over 80,000 audience member surveys providing qualitative and quantitative feedback
- Focus on weight stigma reduction

RESILIENCY TECHNOLOGIES, INC.

Our Partners

Research Collaborators

- Duke Biber, Ph.D., University of West Georgia
- Gunner Brolinson, M.D., Edward Via College of Osteopathic Medicine (VCOM)
- Department of Mental Health, Spartanburg
- Victoria Cosgrove, Psy.D., Stanford University School of Medicine
- Martin Eaton, Psy.D., USC, Head's Up Checkup
- Natalie Fadel, Psy.D., VCOM-Carolinas
- Stephen Hinshaw, Ph.D., UC Berkeley / UCSF
- Alex Karydi, Ph.D., American Foundation for Suicide Prevention, SPRC
- nView Health
- Lindsey Ridgeway, Ph.D., VCOM-Carolinas
- Alexis Stoner, Ph.D., VCOM-Carolinas
- Spartanburg County Suicide Prevention Task Force
- UC Berkeley Data Analytics "Discovery"
- Upstate Warrior Solution Veteran Service
- Anna Van Meter, Psy.D., Feinstein Institutes for Medical Research

Content Partners and Agencies

- A Child's Haven
- Timothy Brewerton, M.D.
- Craig Burnette, Ph.D.
- Child Advocacy Center Spartanburg
- City of Spartanburg Police Department
- CONNECT Spartanburg
- Emerge Family Therapy Clinic
- Heather Witt, M.A.O.M.
- Highland Neighborhood Association
- Hope Center for Children
- Northside Development Group-Purposebuilt Community
- nView Health
- Mental Fitness
- R3 Continuum
- Robert Post, M.D.
- Safe Homes Rape Crisis Center
- South Carolina Office of Suicide Prevention
- Spartanburg Academic Movement
- Spartanburg Area Mental Health Center / DMH
- Spartanburg Department of Social Services
- The Forrester Center for Behavioral Health and Substance Use Treatment
- United Way of the Piedmont
- Upstate Warrior Solution Veteran Agency
- USC Upstate Child Protection Training Center
- USC Columbia Department of Psychology - Behavioral Alliance of South Carolina (BASC)
- Venture Carolina / Venture South
- VCOM - Edward Via College of Osteopathic Medicine
- Way to Wellville Spartanburg

Experts featured in Content Library

- Chase Bannister, LISW
- Mary Bartlett, Ph.D.
- Ovidio Bermudez, M.D.
- Rick Bishop, M.D.
- Bethany Brand, Ph.D..
- Timothy Brewerton, M.D.
- Candace
- Cynthia Bulik, Ph.D.
- Deb Burgard, Ph.D.
- Craig Burnette, Ph.D.
- Lisa Carroll, M.D.
- Jeff Cashman, D.O.
- Suzy Cole, J.D.
- Carolyn Costin, MFT
- Stephen Davis
- Taylor Davis, Ed.S.
- Julisu Dimucci-Ward, Ph.D.
- Jeff Doemland
- Esther Dyson
- Natalie Fadel, Psy.D.
- Charlie Hall
- Thomas Hargrove
- Stephen Hinshaw, Ph.D.
- Robert O. Hussa, Ph.D.
- Ronald Januchowski, D.O.
- Leroy Jeter
- Liz Jodoin, Ph.D.
- Craig Johnson, Ph.D.
- Alex Karydi, Ph.D.
- Nicholas Kelley, M.D.
- Arialle Kennedy
- Laura Lees, Psy.D.
- Naomi Letts
- Richard Loewenstein, M.D.
- Rahul Mehra, M.D.
- Edward Magalhaes, Ph.D.
- Angela Mensah, Ph.D.
- DJ Moore
- Nate Moore
- James Mulak
- Wendy Oliver-Pyatt, M.D.
- Jennifer Parker, Ph.D.
- Frank Putnam, M.D.
- Lindsey Ridgeway, Ph.D.
- Jason Roberts, LPC
- Major General Mastin Robeson
- Melanie Rogers, R.D.
- Sami
- Pat Santucci, M.D.
- Karen Sossin, MS, CDN
- Alexis Stoner, Ph.D.
- Ida Thompson, M.Ed.
- Tony Thomas
- Ken Weiner, M.D.
- Mark Weist, Ph.D.
- Ted Weltzin, M.D.
- Roger Williams, LISW
- Residents of Northside and Highland communities in South Carolina
- Over 50 veterans and their spouses
- Over 50 individuals with lived experience and expertise

Social Impact

Our business model reflects our intentions of doing well and good in the world. Our content partners participate in a revenue-sharing model which enables nonprofit agency content partners to increase capacity while extending their reach and impact.

A portion of the proceeds from the sale of content benefits our nonprofit partners.

MENTAL FITNESS

SPRING 2022
MINDSETS MENU

Mental Fitness (MFI) is a non-profit, charitable organization established in 2006 to reduce the mental health stigma and to prevent the development of emotional and behavioral disorders. Our mission is to strengthen communities by providing workshops and resources proven to build healthy coping skills through engaging activities and artistic expression.

MINDSET DEVELOPMENT

A Wellness Workshop for Parents, Counselors, Teachers, Coaches & Other Youth Leaders

Learn the Building Blocks that Help Individuals Manage Stress and Overcome Adversity in Healthy Way

SESSION 1
REDEFINING NORMAL

Discover the Building Blocks of Mental Fitness and their impact on improving emotional and behavioral health

SESSION 2
PRACTICE WITH PURPOSE

Engage in a variety of activities that incorporate the Building Blocks of Mental Fitness to reduce stress and conflict.

SESSION 3
MENTAL FITNESS IN MOTION

Learn effective methods to incorporate mindset activities and other Mental Fitness tools into your daily schedule

Rate per Session: $35 per person or $300 per group of 10+
Rate for all 3 Sessions: $75 per person or $700 per group of 10+

Each participant receives a complimentary MindSets Activity Deck.

Mental Fitness Workshops are available virtually or in person with compliance to the guidelines provided by The Centers for Disease Control and Prevention (CDC) to reduce the spread of covid-19.

MINDSETS ACTIVITY DECKS

Simple Techniques that Build Healthy Coping Skills

MindSets Activities by Mental Fitness incorporate basic techniques such as breathing, journaling, music, meditation, exercise, art & more that have been proven to help manage emotion & improve behavior. Each deck includes 10 affirmation and activity cards.

1 unit: $12
12 units: $11 each
24 units: $10 each
36+ units: $9 each

MENTAL FITNESS IN-A-BOX

Group Leader Kit to Help Manage Emotion & Behavior

Mental Fitness in-a-Box includes a variety of tools to develop healthy coping skills by incorporating quick and easy activities into your regular routine.

GROUP LEADER KIT CONTENTS
- MindSets Activity Deck
- Wooden Tower Puzzle
- Chime & Mallet Set
- Liquid Spiral Timer
- Stress Cube

1 unit: $75
12 units: $70 each
24 units: $65 each
36+ units: $60 each

To schedule a live or virtual workshop or to order materials for your group, please send an email inquiry to Lori Burney, Executive Director, at contact@mentalfitnessinc.org.

Heads Up Checkup®

Mental Health and Behavioral Risk Screening System

A Proactive Solution

- Heads Up Checkup® is a cloud based mental health screening tool that can be completed in minutes by the individual or on behalf of the individual by their caregiver.
- We use proprietary screening algorithms that adapt the survey based on prior responses to pinpoint behavioral health priorities enabling mental healthcare professionals to accelerate diagnosis and treatment.

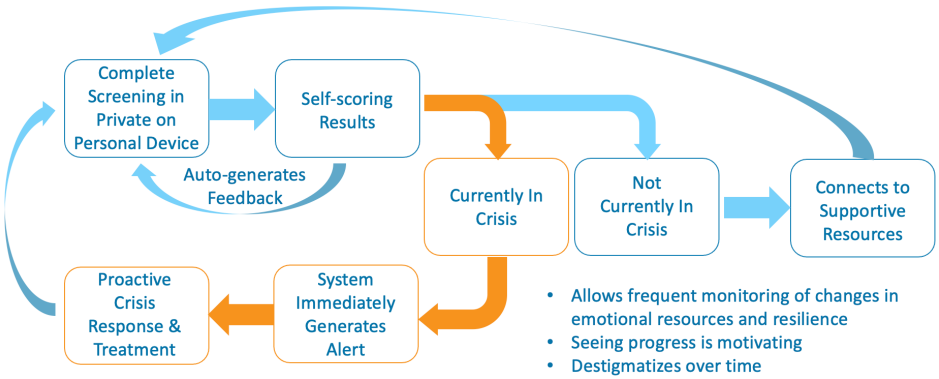
Simplified User Experience – Avg 8 Mins

Rapidly Screens for 90% of the most common mental health concerns including Anxiety, Depression, Risk of Self-Harm, Risk of Harm to Others

Accelerates Identification of Those in Crisis

Connects People to Immediate Support with ability to click on live help when there is a supportive hub waiting to respond to those who want to talk in real time

Screening to Intervention in Minutes



- Allows frequent monitoring of changes in emotional resources and resilience
- Seeing progress is motivating
- Destigmatizes over time
- Develops trust in the process

Results Available Immediately

Screening Self-Scores

PRIORITY NOTIFICATION
Proactively Reach Out to Those in Crisis

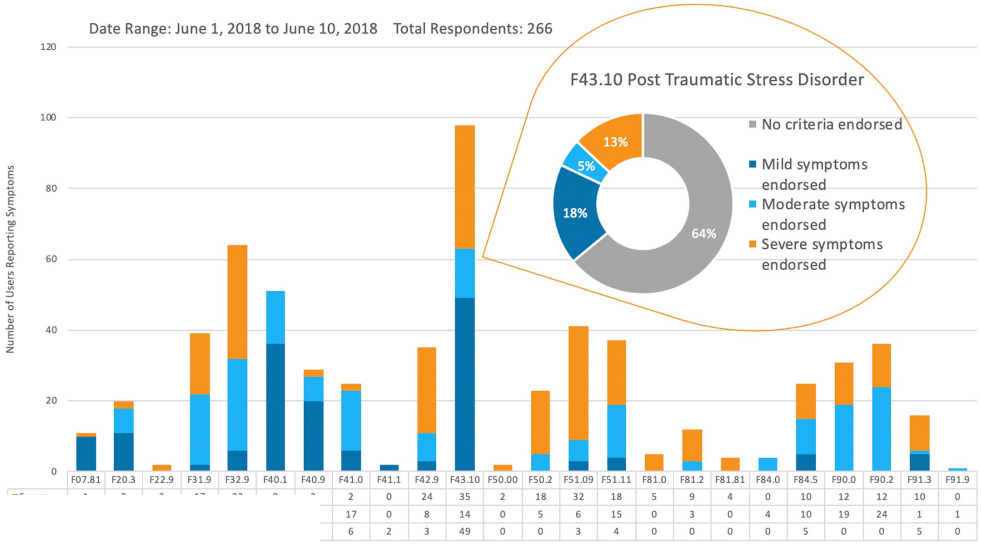
USER FEEDBACK
Personalized, Customized Report, in their Confidential Account

AGGREGATED DATA
Mental Health Report Card, Trends

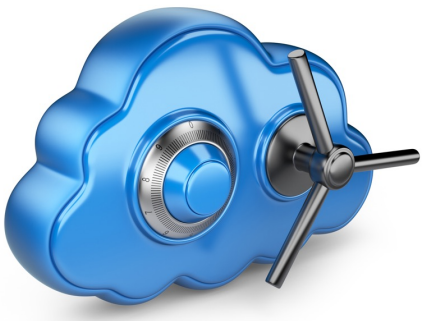
Receive a "mental health snapshot" the same day of the screening

CLINICAL REPORT
Supports Crisis Response and Follow-up Treatment

Aggregate Results for a Mental Health Report Card



	F07.81	F20.3	F22.9	F31.9	F32.9	F40.1	F40.9	F41.0	F41.1	F42.9	F43.10	F50.00	F50.2	F51.09	F51.11	F81.0	F81.2	F81.81	F84.0	F84.5	F90.0	F90.2	F91.3	F91.9
								2	0	24	35	2	18	32	18	5	9	4	0	10	12	12	10	0
								17	0	8	14	0	5	6	15	0	3	0	4	10	19	24	1	1
								6	2	3	49	0	0	3	4	0	0	0	0	5	0	0	5	0



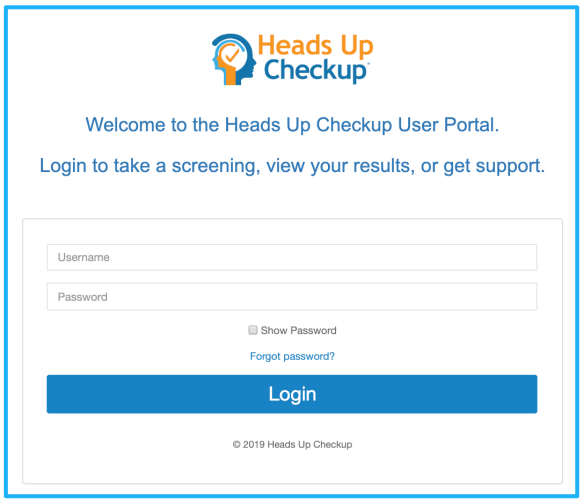
Confidential, Secure

During screening, nothing is downloaded to any local device. All data are stored on HIPAA-compliant servers. Results remain confidential unless the law requires disclosure.

For a free demonstration of the Heads Up Checkup® Screening System visit HeadsUpCheckup.com or call 714.716.1617

Mental Health and Behavioral Risk Screening System

Trial Screenings at https://HeadsUpCheckup.com/portal



To Trial Parent of Ages 0-5 Version
Login with Username: parent0to5

To Trial Parent of Ages 6-11 Version
Login with Username: parent

To Trial Parent of Ages 12-17 Version
Login with Username: parent12to17

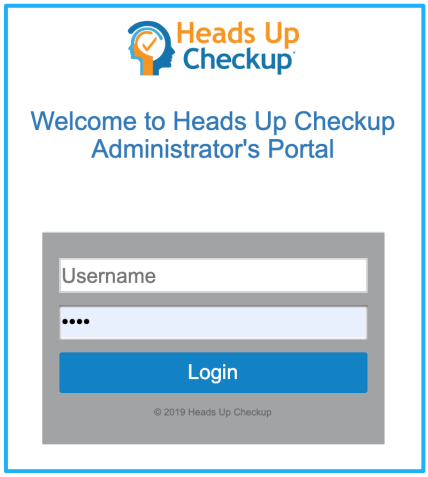
To Trial Self-Report Ages 12-17 Version
Login with Username: adolescent

To Trial Self-Report Ages 18-21 Version
Login with Username: youngadult

Password for all above logins is: hcudemo622

NOTE: Demonstration accounts are accessible by one person at a time. Screenings completed in demo accounts are NOT confidential as results are available to view by anyone accessing the demo accounts. Do not use for personal screening. You can take the screening as many times as you'd like. Please log out when finished so the account is available for other users. Demo account passwords are changed every few months.

Administrator Dashboard Demos at https://HeadsUpCheckup.com/admin



To Trial Data Admin Dashboard
Aggregate and Analyze De-identified Results
Login with Username: schooldata

To Trial Clinical Admin Dashboard
View Clinical Reports from Completed Screenings
Login with Username: schoolclinical

Password for all logins is: hcudemo622

HUCU Abbreviated Report (1), February 18, 2022

The HUCU Priority Index (HPI): An Evidence-Based Approach to Risk Assessment[1]

The Heads Up Checkup (HUCU) is a new generation computerized screening system designed to identify and prioritize the needs of individuals with mental health concerns across a wide array of affective, cognitive, behavioral, and/or developmental issues. To flag cases for follow-up services and/or clinical intervention, the HUCU's algorithm simultaneously analyzes multiple psychiatric diagnostic categories such as, depression, anxiety, behavioral problems, thought disorders, ADHD, ASD/Asperger's, and learning challenges. In addition, the HUCU evaluates the presence of suicidal and homicidal ideation, substance use/abuse, relational abuse, and adverse childhood experiences.

Using a decision-tree method, the HUCU determines a "priority" risk designation for each respondent based on the % criteria met for each psychiatric category, severity of symptoms, level of dysfunctional behaviors, and abuse. Referred to as the HUCU Priority Index (HPI), this risk designation conveys information regarding both the scope and urgency of respondents' mental health issues. Hypothetically, a respondent can simultaneously meet 70-99% of the diagnostic criteria for Major Depressive Disorder and ADHD. In addition, the same respondent could meet 50-69% of the criteria for Insomnia. Within each of these categories, symptoms can vary by duration and impact on daily functioning. Moreover, other sources of dysfunction or adverse psychological circumstances are factored into an HPI rating. Thus, a designated risk level is not determined solely by the presence or absence of symptoms for a single diagnostic category.

Although the clinical relevance of the HPI as a quantifiable measure of mental health risk is evident, ascertaining its validity by examining its psychometric properties has been the primary focus of our work. In part, the HPI's validity stems from the HUCU application's use of psychiatric categories which conform to the ICD-10, an internationally accepted set of standardized diagnostic criteria. Its validity can also be attributed to the algorithm's adaptive ability to present, sort, and generate pertinent clinical information helpful in reducing diagnostic bias, increasing therapeutic consensus, and formulating effective follow-up interventions. In keeping with rigorous evidence-based approaches, statistical tests of the HPI's predictive validity are currently in progress.

Toward this end, two extensive reports[2] have been completed which detail the relationship between HPI classifications and the psychiatric diagnostic categories of major depressive disorder (MDD), social anxiety, generalized anxiety disorder (GAD), and panic disorder. These reports contain statistical support for the HPI's sensitivity and specificity in identifying the likelihood of disorder. In conducting these analyses, it was assumed that the HPI risk level in conjunction with the number of reported symptoms for a specific disorder would yield the necessary predictive characteristics necessary to validate the HPI and the algorithm from which it derives. Using Major Depressive Disorder (MDD) screening data, the purpose of this summary is to demonstrate the basic rationale for this assumption. Basically, what kind of information can we glean from applying HPI risk levels to MDD symptoms?

Table 1 summarizes the frequency distribution for the HPI's risk levels for a non-clinical community sample of (N=2244) adolescents. The cumulative percent column indicates that respondents at or below the 50-69% criteria for at least one diagnostic category, or HPI Levels 1-2, account for 49.5% of the total sample. Respondents at higher risk, or Levels 3-7, account for 50.5% of the sample.

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[1] Contact Nancy Genero, Ph.D. for questions regarding the HPI statistical evaluation at ngenero@wellesley.edu.
[2] Access report links in reference notes.

Table 1. Distribution of HPI by % Diagnostic Criteria (N=2244)

Percent Diagnostic Criteria Met	Priority Index Level	Frequency	Percent	Cumulative %
<50% crit for =>1 dx	1	734	32.7	32.7
50-69% crit for =>1 dx	2	376	16.8	**MEDIAN= 49.5**
70-99% crit for=>1dx	3	438	19.5	69.0
100% crit for =>1dx	4	556	24.8	93.8
Suicidal ideation or abuse	5	113	5.0	98.8
Suicidal, homicidal, hostile, and/or anti-social behavior	6	9	.4	99.2
Acute suicidal ideation	7	18	.8	100.0
Total		2244	100.0	

By converting the data from Table 1 into graphic form, we can see in Figure 1 that the HPI "predicts" that a third (32.7%) of the overall sample meets <50% of the criteria for one or more diagnostic categories. The next highest frequency of cases was Level 4; specifically, according to the HPI 25% of the sample meets 100% criteria for one or more diagnoses. Although, in and of itself, this is useful information, we would also like to know whether this distribution is likely to change when we factor in number of symptoms reported.

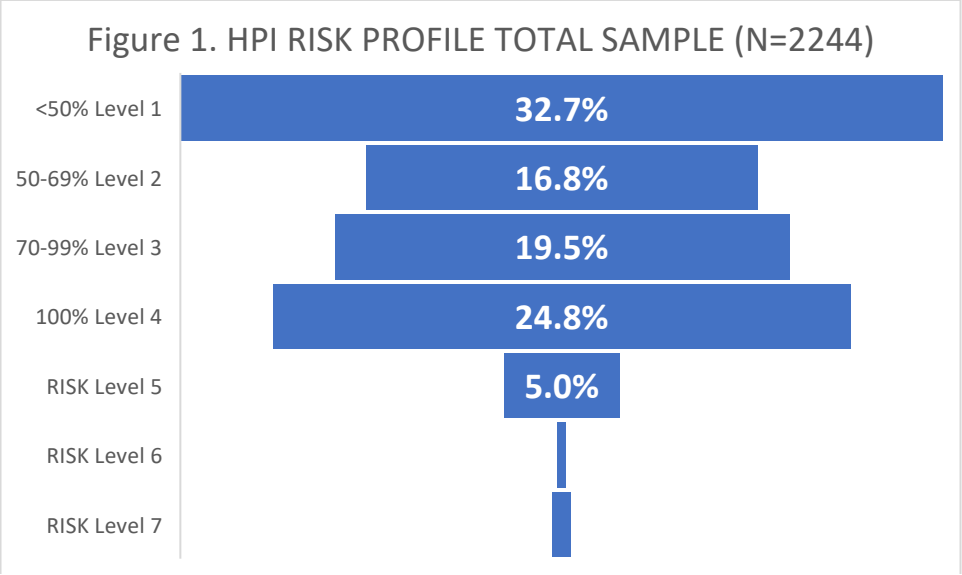


Table 2 summarizes the eleven symptom items which comprise the HUCU-MDD subscale. These items are consistent with the criteria published by World Health Organization for ICD-10 Code F32.9 Major depressive disorder, single episode, unspecified[3].

[3] https://www.icd10data.com/ICD10CM/Codes/F01-F99/F30-F39/F32-/F32.3

Table 2. Description of HUCU-MDD Symptom Items

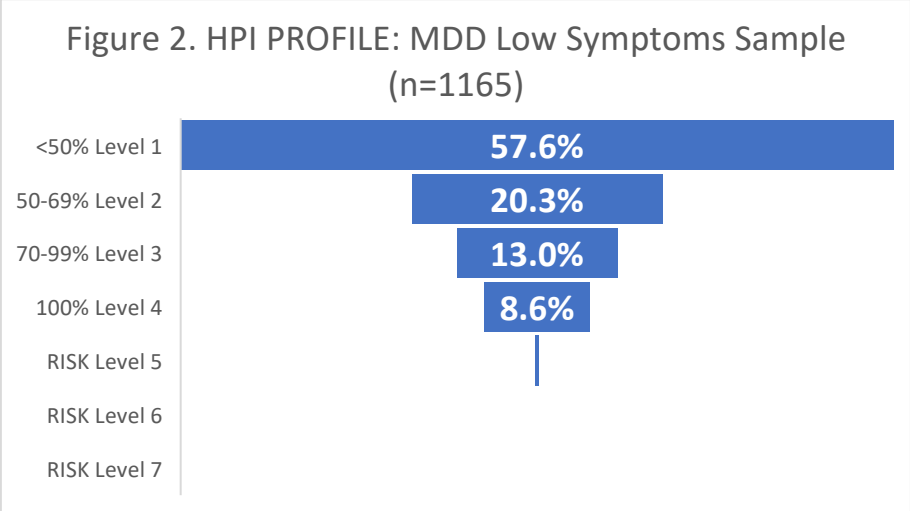
1	(v636) I often feel sad, depressed, or hopeless.
2	(v614) I've lost interest in doing things I used to enjoy.
3	(v615) I don't feel like I have enough energy to do anything.
4	(v639) I feel guilty or unworthy.
5	(v589) I don't feel hungry most of the time.
6	(v590) I don't eat enough
7	(v592) Sometimes I eat way too much or eat when I'm not even hungry.
8	(v586) I sleep too much.
9	(v587) I don't get enough sleep.
10	(v611) I have trouble concentrating or staying focused.
11	(v627) Within the past few weeks, I have had thoughts about killing myself.

Table 3 lists the frequencies for number of MDD symptoms endorsed; percentages do not correspond to any specific MDD symptom. For example, a total of n=503 respondents reported only one symptom, which can be any one of the eleven MDD symptoms. The cumulative frequency distribution shows that over half the sample (Median= 59.9%) endorsed one or fewer symptoms. Cases who endorsed 0 or 1 item would likely be at low risk for MDD. However, cases with two or more symptoms (48.1%) would likely be classified as high risk. For this analysis, two MDD samples were created consisting of 0-1 symptoms (Low MDD, n=1165) and 2-11 symptoms (High MDD, n=1079).

Table 3. Distribution of MDD # Items for Total Sample (N=2244)

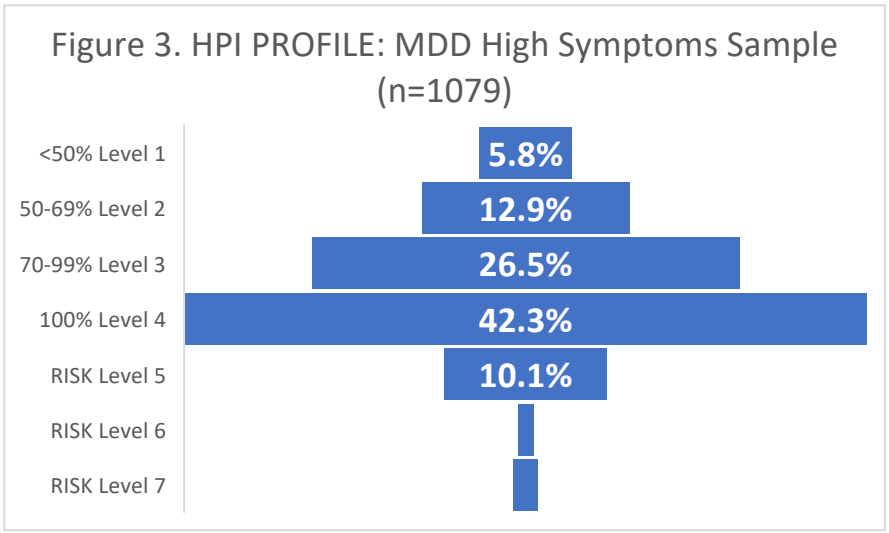
# MDD Items Endorsed		Frequency	Percent	Cumulative Percent
	0	662	29.5	29.5
	1	503	22.4	MEDIAN=51.9
	2	318	14.2	66.1
	3	220	9.8	75.9
	4	176	7.8	83.7
	5	112	5.0	88.7
	6	90	4.0	92.7
	7	74	3.3	96.0
	8	61	2.7	98.8
	9	14	.6	99.4
	10	13	.6	100.0
	11	1	.0	100.0
	Total	2244	100.0	

Figure 2 shows the application of HPI criteria to the MDD Low symptoms sample (n=1165).



Frequencies suggest there is a better than chance probability that 77.9% (Levels 1 & 2) of this sample will be classified as "low risk" by the HPI. This value is an improvement over the percentage associated with the frequency of low MDD symptoms (51.9%) because the HPI determines risk with a more complex set of criteria, not simply by number of symptoms. Note that the HPI also predicts that a smaller percentage of Low MDD cases will fall in the higher risk levels. This is to be expected as the probability values associated with the predictive validity of the HPI are not expected to be 100%. In fact, more extensive analyses show that sensitivity and specificity probabilities are in the 70% to 80% range.

Figure 3 shows the application of HPI criteria to the MDD High symptoms sample (n=1079). Note that the direction of the funnel seen in Figure 2 is reversed as more cases meet 100% criteria for at least one diagnostic category.



The distribution of the HPI designations suggests that there is a better than chance probability that 80% (Levels 3 to 7) of MDD high symptom cases (n=1079) will be classified as "high risk." This percent is also greater than the percentage associated with the high MDD symptom (2-11) group alone (48.1%). In

addition, the HPI criteria "predict" that a small number of cases in the High MDD sample will be at lower risk. This may be attributed to the fact that some respondents may endorse symptoms that are critical to identifying cases at higher risk for MDD but may not meet the HPI criteria sufficiently to place them in the upper Level 3-7 groupings.

In sum, the overall assumption of the relationship between HPI criteria and reported symptom levels was supported by these analyses. More substantial statistical analyses on the psychometric properties of the HPI have demonstrated that it can yield accurate and valuable clinical information. We have also found that assessments based on the HPI vary by gender, a finding that is consistent with decades of published data on the higher prevalence of depression and anxiety among females. Future analyses will involve disaggregating HPI results further by age, race, ethnicity, sexual orientation, and socioeconomic status. In addition, data independent of adolescent self-reports, such as academic grades and absenteeism, will further strengthen the HPI's functionality as an efficient indicator of mental health risk. The historical effects of the COVID-19 pandemic on mental health should also be directly assessed. This information can be integrated into the HUCU and tested to determine the causal relationship between adolescents' perceptions of widespread illness events and psychological outcomes.

Reference Notes

Link to Research Report 1

An Evaluation of the HUCU Priority Index (HPI) and Major Depressive Disorder Subscale Among Adolescents: Establishing Reliability and Predictive Validity Criteria

Link to Research Report 2

The Efficacy of the HUCU Online Adaptive Screening System for Assessing Anxiety among Non-Clinical Community Samples of Adolescents