Thank you for attending today’s webinar! We will be starting soon. If you have any questions, please ask them in the zoom chat. Enjoy!

WHAT WORKS: Mental Health in the Digital Age

JULY 8, 2020
3PM EST
4PM EST
Morton Sherman has more than 30 years’ administrative experience in raising academic standards, closing achievement gaps, and uniting stakeholders. He has served in public education for over 40 years, 25 as a public school superintendent of schools. Now serving as the AASA Associate Executive Director for Leadership Network, he is responsible for programs which support aspiring and sitting superintendents. Recent initiatives include the creation of the AASA Collaborative, The Urban Superintendents Academies in cooperation with Howard University and the University of Southern California, Superintendents Consortium on Personalized Learning and the Aspiring Superintendents Program.
Prof. Murali Doraiswamy is a professor of psychiatry and behavioral sciences at Duke University School of Medicine and a highly respected researcher in the fields of mental health, emotional resilience and cognitive neuroscience. Murali has served as the Chair of the World Economic Forum’s Global Agenda Council on Brain Research and has been an advisor to leading advocacy groups, businesses and government agencies. His research has been featured in many media outlets such as The New York Times and in several acclaimed documentaries.
Mental health leader and social work professional with 20+ years of experience in the development of mental health programs for the Los Angeles Unified School District, the second largest school district in the United States. Direct the efforts of over 2000 school mental health and health professionals, including social workers, nurses, pediatricians, child psychiatrists, human relations and restorative justice experts, and other administrative functions.

Led the operational implementation of a strategic plan to integrate mental health and wellness centers, achieving the mainstreaming of the delivery of essential services to trauma-impacted students. Collaborated with research partners at UCLA, USC and Rand Corporation to develop cutting edge evidence-based practices for the group treatment of youth exposed to community violence and traumatic events.
Exemplary Superintendent with an EdD in Educational & Organizational Leadership and an MBA in General Management. More than 25 years of progressive experience in K-12 educational settings with a background highlighted by professional training and achievement in the areas of education, product and service management. Mastery knowledge of evidence-based instructional practices with demonstrated ability for building collaborative relationships to support teachers and administration in raising student achievement. Deeply committed to playing a critical role in improving the academic and social success of ALL students.
Context setting: Research on brain science

Dr. Murali Doraiswamy
Pre-COVID: Unmet Needs in Mental Health

• ~45M people in US experienced mental health issues
  • 1 in 6 school staff or parents

• Half of all MH illness may start in early life
  • 16% of youth (8M) experienced MH problems
  • Suicide #2 cause of death in age 10-34 (17% of HS students have SI)

• Stigma, Social stressors

• Schools may not have resources or capacity

https://www.weforum.org/press/2019/07/how-to-use-technology-ethically-to-increase-access-to-mental-healthcare
“Greatest psychological experiment of our time”

- 1.3B children stay in place
- 60% increased worries (parents health, finances, school work)
- 60% feel more lonely/bored
- 40% feel closer to families
- 9 hours/day screen time
Flatten the infection curve

Flatten the mental ill-health curve

Increase mental health system capacity

TIME

Adapted by Dr Lachlan Kent from Twitter post by Dr Victor Tseng (@VectorSting Mar 31)
Fundamental Shifts in Mental Health

- How people access care
- Who owns the data
- What is good data
- Monitoring: Active to passive
- Care: Reactive to Predictive
- Power of crowds
- Scale: Hundreds to millions
Empowering 8 Billion Minds
Enabling Better Mental Health for All via the Ethical Adoption of Technologies

Doraiswamy PM et al. NAM Perspectives.
Can we develop a single number to track mental health and resilience?

Adapted from Dr. Vaibhav Narayan
**Digital Neurocognitive Performance Test**

*Repeatable, Self-administered*

| Go/No Go | Forward Memory Span | Reverse Memory Span | Progressive Matrices | Digit Symbol Coding | Trails A | Trails B | Grammatical Reasoning | Arithmetic Reasoning | Object Recognition | Verbal List | Dual Search | Complex Span | Figure Weights | Problem Solving |
|----------|---------------------|---------------------|----------------------|--------------------|--------|--------|------------------------|----------------------|-------------------|-------------|-------------|---------------|---------------|----------------|----------------|
| Speed of Processing | 0 | 0 | 0 | 0 | 0 |
| Memory | 0 | 0 | 0 | 0 | 0 | 0 |
| Attention | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mental Flexibility | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Problem Solving | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
How You Compare

Compare with users in the age group: 25 – 29 years (Your age group)

**BPI**

97.3rd percentile

Congratulations, your BPI is among the best in your age group.

What does Percentile mean?

**Speed**

89.8th percentile

Your Speed is a force to be reckoned with. Keep up the good work.

**Memory**

93rd percentile

Impressive job! Your BPI demonstrates true mastery of Memory.
Text CONNECT to 741741 from anywhere in the USA, anytime, about any type of crisis.

- Fast 24/7 crises coverage
- SMS or Messenger
- Triaged at 3 levels with AI
- High risk served under 5 min
- Crises counsellors
- 105,986,234 messages exchanged since 2013
Can AI/ML predict the risk for acute and/or future suicide?

• Little impact in past 40 years
• Meta-Analysis of 37 Studies
  • 95% of high-risk patients will not die by suicide
  • 50% suicides from lower risk categories
• Predicting suicide following self-harm
  • Major risk factors are common in the population
  • PPV is low <16%
• REACH VET
  • identifies those at a statistically elevated risk
  • provide pre-emptive care and support - in some cases before a Veteran even has suicidal thoughts
  • has identified >30,000 at risk
  • Being scaled over 28 sites
  • Outcomes “positive but not definitive”

PLOS One 2016; BJP 2016; Simon GE et al. AJP 2018

~3M patients; 24133 suicide attempts
Growing Evidence from RCTs for Efficacy of Digital Tools in Mental Health

### Meta-Analysis of Smartphone Apps for Anxiety

**Firth & Torous et al., April 2017**

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<thead>
<tr>
<th>9 RCTs for Anxiety:</th>
<th>1,837 participants</th>
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<table>
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<tr>
<th>Effects on Anxiety</th>
<th>Hedges’ (g)</th>
<th>P-value</th>
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<tbody>
<tr>
<td>All RCTs</td>
<td>0.33</td>
<td>&lt;0.001</td>
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<tr>
<td>Smartphone vs. Waitlist</td>
<td>0.45</td>
<td>&lt;0.001</td>
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<tr>
<td>Smartphone vs. Active Control</td>
<td>0.19</td>
<td>0.003</td>
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</table>

### Meta-Analysis of Smartphone Apps for Depression

**World Psychiatry, Firth & Torous et al., October 2017**

<table>
<thead>
<tr>
<th>18 RCTs for Depression:</th>
<th>3,414 participants</th>
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<table>
<thead>
<tr>
<th>Effects on Depression</th>
<th>Hedges’ (g)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>All RCTs</td>
<td>0.38</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Smartphone vs. Waitlist</td>
<td>0.56</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Smartphone vs. Active Control</td>
<td>0.22</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Potential harms of digital tools/AI in mental health

- Privacy risks
- Long-term benefits uncertain
- Worsening dehumanization?
- Worsening biases and inequities?
- Diagnostic or treatment errors?
- Loss of human touch?
Empowering 8 Billion Minds through Ethical Adoption of Technology

Video

https://vimeo.com/user100349956
Los Angeles Unified School District

Pia Escudero
LAUSD serves 600,000 students in kindergarten through twelfth grade across 1,300 schools. The District has over 200 independently-operated public charter schools, authorized by the LAUSD Board of Education.

Second Largest in the Nation
LAUSD serves 600,000 students in kindergarten through twelfth grade across 1,300 schools. The District has over 200 independently-operated public charter schools, authorized by the LAUSD Board of Education.

Boundaries
710 square miles including the City of Los Angeles and 26 cities and unincorporated areas of Los Angeles County. Approximately 4.8 million people live within these boundaries.

Mission
All youth achieving. The mission of LAUSD is reflected in the upward trend in the graduation rate, progress in the pass rate on the California High School Exit Exam (CAHSEE) and other academic indicators.
Student Health & Human Services (SHHS)

Our Division provides services that:
• Remove Adversities and Disparities
• Improve access to services

By integrating responsibilities and best practices that collectively address barriers in accessing instruction and learning and promote academic achievement.

Our multi-disciplinary practice aims to address individual, familial and cultural trauma, disengagement, health disparities, chronic attendance, and toxic stress through prevention, screening and healing.

Embracing data and research for the basis of planning, assessing, doing, and adjusting our practice to meet the needs of our students and families.
Dr. Carol Kelley
Focus Question One:

How do you address the unknowns?
Focus Question Two:

Future Ready/Virtual Learning with Uncertainty
Focus Question Three:

Toolsets/ Treatments
Moving forward, how do we apply what we have learned?
Questions or Comments?

Murli Doraiswamy, M.D.,
Professor of Psychiatry and Behavioral Sciences,
Duke University School of Medicine

Pa V. Escudero, LCSW,
Executive Director,
Student Health and Human Services,
Los Angeles Unified School District

Dr. Carol Kelley,
Superintendent,
Oak Park Elementary School District 97
THANK YOU FOR ATTENDING TODAY’S WEBINAR!

WE URGE YOU TO CONNECT WITH ONE ANOTHER VIA LINKEDIN, TWITTER, EMAIL, PHONE— INVESTING IN RELATIONSHIPS PAYS HUGE DIVIDEND
High anxiety calls for innovation in digital mental health

Are you feeling depressed or anxious? There’s an app for that. Globally, there are more than 400 million annual downloads of mobile health apps, which suggests that consumers are eagerly seeking technology to manage their health.

https://www.weforum.org/agenda/2020/04/high-anxiety-calls-for-innovation-in-digital-mental-health-6b7b4e7044/
Please visit us at: achieve.lausd.net/shh

Let’s go to see