School Mental Health Literacy: Some Key Considerations for Pre-Service Training

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Mental health literacy is the knowledge, understanding and competencies that provide the foundation for mental health promotion, prevention, intervention and ongoing care that is developmentally appropriate, contextually applied and best evidence* supported.
What is Mental Health Literacy?

Also an evolving concept; informed by realization that it is: complex; must be developmentally appropriate; contextualized in its application (one size does not fit all); must be appropriately measured; must address: knowledge, attitudes and behavior; must be demonstrated to be effectively applied (best scientific evidence); must be part of health literacy (not a stand alone issue); underpinning of all mental health related activities.
What Mental Health Literacy must Embrace

MHL must be built on context and developmentally appropriate, pedagogically substantiated approaches and best science demonstrated results: addressing: Knowledge, Attitudes and Behaviours of the receiver

One size does not fit all!
Conceptual Caution

• Mental Health Awareness is not Mental Health Literacy – at best may be a pre-cursor to MHL, at worst may be an inhibitor of MHL
• Taking a course or getting information about mental disorders is not MHL
• Frenetic activity is not a substitute for knowledge, understanding and self-care competencies – beware simple solutions to complex problems
Some basic MHL

• Understanding the Human Brain (humbly as best as we can)
• Know how to evaluate and understand what you read about mental health (some common challenges)
• Understand foundations of how to think about treatments (apply to all kinds)
• How does what you are doing measure up?
Normal Teen Brain Development: a primer for health providers

Lenroot & Giedd (2006)
• Play brain video here
SEMANTIC CONFUSION

Mental health condition
Mental health issue
Mental health illness
Mental wellness illness
Mental illness
Mental health
Mental wellness
Mental well-being
Mental wholeness
Mental and social well-being
Mental health problem
Mental disorder
Mental happiness and well-being
UNDERSTANDING MENTAL HEALTH STATES

- No Distress, Problem or Disorder
- Mental Distress
- Mental Health Problem
- Mental Disorder/Illness
Clarity is essential: “depression”

**Distress**
- Unhappy
- Disappointed
- Disgruntled

**Problem**
- Demoralized
- Disengaged
- Disenfranchised

**Disorder**
- Depressed
Mental Health State and Type of Action

- Enhancement of mental well being
- Addressing Distress
- Addressing Mental Health Problems
- Addressing Mental Disorders
- Health Promotion
- Helping build resilience
- Avoiding protection from stress
- Enhancing Supports, Prevention
- Prevention, Best in Class Care
### Children and Adolescent Mental Health

**Children and Youth Ages 9-17**

<table>
<thead>
<tr>
<th>Mental Disorder</th>
<th>Six Month Prevalence (%) Age = 9-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety Disorder</td>
<td>13.0</td>
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<tr>
<td>Mood Disorder</td>
<td>6.2</td>
</tr>
<tr>
<td>Disruptive Behavioral d/os</td>
<td>10.3</td>
</tr>
<tr>
<td>Substance Use Disorders</td>
<td>2.0</td>
</tr>
<tr>
<td>Any Disorder</td>
<td>20.9</td>
</tr>
</tbody>
</table>
Child and Adolescent Health: Comparative Burden of Illness for Mental Illness

Table: World: DALYS in 2000 attributable to selected causes by age

<table>
<thead>
<tr>
<th>Condition</th>
<th>Ages 0-9</th>
<th>Ages 10-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuro-psychiatric conditions (including self-inflicted injuries)</td>
<td>12</td>
<td>29</td>
</tr>
<tr>
<td>Malignant Neoplasms</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Cardiovascular Diseases</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Child and Adolescent Mental Disorders

Up to 21% of children and youth age 9-17 in the US suffer from a mental disorder (including addictive disorders) associated with at least minimal functional impairment.

11% of children and youth age 9-17 in the US suffer from a mental disorder associated with significant functional impairment.

5% of children and youth age 9-17 in the US suffer from a mental disorder associated with extreme functional impairment.
Cross-national Comparisons of the Onset of Psychiatric Disorders

Age of onset distributions of any anxiety disorders*

Age of onset distributions of any mood disorders*

Age of onset distributions of any substance use disorders*

*Data for Germany were omitted because of the narrow age range of the sample
Age of Onset of Major Mental Disorders

- PDD/ Autism
- ADHD

Anxiety Disorder
- Obsessive Compulsive Disorder
- Substance Abuse
- Anorexia Nervosa
- Major Depressive Disorder
- Bipolar Disorder
- Schizophrenia
- Bulimia Nervosa

Source: DSM-IV, 2000
Number of Suicides by Age Group Canada, 2005-2009

Source: Statistics Canada
What is the Evidence you Need?

What do the following have in common?

• 1 – Lemon juice soaked sponges
• 2 – Pessaries made from: acacia root and honey; donkey milk; crocodile dung
• 3 – Libations of: hot mercury; camel spittle
What do these have in Common?

- Charles Goodyear
- Margaret Sanger
- Katherine McCormick
- Frank Cotton/Carl Djerassi/John Rock and Edris Rice-Wray/Celso Ramon-Garcia
- The Barbasco Yam
- FDA
- Searle
And there is more!

The Social Context of ENOVID
1 – FDA 1957 – “menstrual disorders”
2 – FDA 1960 – “contraception”
3 - “The Doctors Case Against the Pill’ (1969)
5 - Eisenstein vrs Baird (1972) – crimes against chastity
6 – Our Bodies Ourselves (1970 – Boston Women’s Health Collective)
7 – The Roman Catholic Church
Enhancing Evidence Based Interventions

- Necessity to practice/work within a BEST evidence based framework
- Absence of evidence is not evidence of absence
- Best evidence based practice is not the same as evidence based best practice
- “Promising”, “Best Practice” and “Evidence Informed” – what exactly do those words mean?
Common Conceptual Challenges

1 – Risk factor and protective factor consideration as the justification for outcome expectations

2 – The primacy of “linear causation” – “that which came before caused what happened next”

3 – Wish to find simple solutions to complex problems (the emotional drive for certainty - doing something vs doing the right thing)

4 – The attributional bias

5 – Confusing “symptoms” with “syndrome” - for example: “depression” with “Depression”
Linear Causality = Error

- Symptoms begin
- Events happen
- More events happen
- Diagnosis made
- MOOD
Common Critical Reading Challenges

1 – Percentages as reported results
2 – Within group comparisons instead of between group comparisons
3 – Use of “proxy measures” instead of the key measure
4 – No “placebo” group (attentional controls)
5 – Abstract and Conclusions are not supported by the data in the article
Evidence is Hierarchical

RCT

Case Controlled

Natural Prospective

Case

Case Series

Natural Retrospective

TeenMentalHealth.org  @TMentalHealth  TeenMentalHealth1
Evidence Level of Health Programmes

A systematic Review of Randomized controlled studies

A randomized controlled trial

A pseudorandomised controlled trial
(i.e. alternate allocation or some other method)

A comparative study with concurrent controls
(Non-randomized experimental trial, cohort, case control, interrupted time series with a control group)

A comparative study without concurrent controls
(a historical control study, interrupted time series without a control group)

Case series with either post-test or pre-test/post-test outcomes

Background information/expert opinions
## OJP “What Works Repository” Classification Framework

<table>
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<th>RCT</th>
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<tbody>
<tr>
<td>No known harmful side effects</td>
</tr>
<tr>
<td>Adequately addressed threats to internal validity</td>
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<tr>
<td>Random assignment</td>
</tr>
<tr>
<td>Large sample (Sufficient power?)</td>
</tr>
<tr>
<td>Intervention described</td>
</tr>
<tr>
<td>Independent evaluation</td>
</tr>
<tr>
<td>Adequate outcome measure</td>
</tr>
<tr>
<td>Differences described</td>
</tr>
<tr>
<td>Modest attrition (≤20%)</td>
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<tr>
<td>Intent-to-treat analysis</td>
</tr>
<tr>
<td>Accurate interpretation of results</td>
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<tr>
<td><strong>Statistically significant positive effect of program</strong></td>
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<tr>
<td>Effect sustained for ≥1 year post-program</td>
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<tr>
<td>≥1 external replication (RCT)</td>
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OJP “What Works Repository”

Note:
The OJP What Works Repository classifies programs into 6 levels of evidence of effectiveness and 3 levels of readiness for dissemination, using rigorous scientific criteria.
OJP “What Works Repository”
Two Examples of School Based Suicide Prevention Programs

- **Ineffective**
  - Insufficient evidence
  - 
  - Yellow Ribbon Suicide Prevention

- **Effective with reservation**
  - Promising
  - Inconclusive evidence
  - Insufficient evidence
  - Signs of Suicide Prevention

- **Effective**
  - Fully prepared for widespread dissemination
  - Fully prepared for limited dissemination
  - Not ready for dissemination
  - Signs of Suicide Prevention

- **Yellow Ribbon Suicide Prevention**
Treatment Categories

1) Standard
2) Complementary
3) Alternative
1) Standard Treatments

- Scientific evaluations (RCT)
- Effective/Safe*/Pure*
- Usually regulated (medicine therapy)
- Ongoing systematic reviews
- Professional endorsement/standards of care
- Ongoing monitoring (medicine therapy)
- Big business - good return on investment (ROI)
2) Complementary Treatments

• In addition to Standard Treatments, usually does not qualify as a Standard Treatment
• Big business - excellent ROI
• Adds value:
  • Improves Standard Treatment effect
  • Decreases Standard Treatment side effect
  • Targets different domain
3) Alternative Treatment

• Instead of a Standard Treatment
• Does not qualify as a Standard Treatment
• Is not used as a Complementary Treatment
• May or may not add value (effective, safe, pure)?
• Big business – outstanding ROI
More Key Treatment Concepts

Placebo  Nocebo
Body System/Adverse Events | Percentage of Patients Reporting Event
---|---
Dry mouth | PROZAC (N=2444) | Placebo (N=1331)
Dyspepsia | 10 | 7
Flatulence | 3 | 2
Vomiting | 3 | 2
Metabolic and Nutritional Disorders
Weight loss | 2 | 1
Nervous System
Insomnia | 20 | 11
Anxiety | 13 | 8
Nervousness | 13 | 9
Somnolence | 13 | 6
Dizziness | 10 | 7
Tremor | 10 | 3
Libido, decreased | 4 | -
Respiratory System
Pharyngitis | 5 | 4
Yawn | 3 | -
Skin and Appendages
Sweating | 8 | 3
Rash | 4 | 3
Pruritus | 3 | 2
Special Senses
Abnormal Vision | 3 | 1
Treatment: Person or Group

- Disorder Amount

- Treatment Group
- Placebo Group
The Treatment Impact
How do we determine intervention impacts?

• Odds ratio
• Effect size
• NNT
• NNT, NNH
Intervention: Magnitude of Effect

Hurricane Juan, Halifax, 2003
Intervention: Magnitude of Effect

Hurricane Katrina, New Orleans, 2005
What Must Programs Demonstrate?

- Effectiveness
- Safety
- Cost effectiveness
- Feasibility

ESCeF Criteria
Working within EXISTING Systems

• Use a system – strengthening model instead of developing a parallel system model
• Focus on reproducibility of results not on fidelity of application
• Build on existing strengths (in schools: teachers; administrators; community links; etc.)
• Integrate interventions as much as possible into existing site ecologies (embed not parachute)
What is Mental Health Literacy for Youth and Educators (Middle and Secondary Schools)?

• Understand how to obtain and maintain good mental health
• Understand and identify mental disorders and their treatments
• Decrease stigma
• Enhance help-seeking efficacy: know where to go; know when to go; know what to expect when you get there; know how to increase likelihood of “best available care” (skills and tools)
Mental Health & High School Curriculum Guide is the first and only evidence based mental health literacy resource to address youth mental health in a systematic manner for Canadian schools, with the focus on students and teachers.
Guide: Curriculum Resource

• Builds on the three core components of schools globally: students; teachers; curriculum
• A resource that can be embedded into existing health or other appropriate courses – not a program in a box
• Delivered by usual classroom teachers who have been trained in the use of the resource – builds on traditional pedagogic practices
• Imparts MHL to students and teachers using existing resources and in school activities
• Mental Health by Stealth
Table 1: The Guide Outcomes

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<thead>
<tr>
<th>Province</th>
<th>Study type</th>
<th>Year</th>
<th>Participants</th>
<th>Increased Knowledge</th>
<th>Improved Attitudes</th>
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<td>Nova Scotia</td>
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<td>2012-2013</td>
<td>218 Educators</td>
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<td>Ontario</td>
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<td>p&lt;0.03, d=1.26</td>
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<tr>
<td>Cross-</td>
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<td>Alberta</td>
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<td>NS, d=0.21</td>
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*: two month follow-up results
Your Challenge Now

• From the following list of well-known programs, decide: evidence is: high; medium; low/unknown for effectiveness and safety
• Guess at the cost: $$$; $$; $
• Rank order (1 to 5)
• Programs: Drug Abuse Resistance Education (DARE); Tribes; Stop Now and Plan (SNAP); Lion’s Quest; The Virtues Project (UN endorsed)

LeBlanc et al. Social and Emotional Learning Programs for Schools; CPSC Atlantic; 2013
WRAP UP DISCUSSION