Maintaining Resilience During (and After) a Pandemic: A Stress Vaccine for Health Care Workers

Southern Ontario Obstetrics and Gynecology Network
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Learning Objectives

• Understand the psychological burden of pandemics in healthcare workers (HCWs), lessons learned from SARS
• Differentiate between normal and maladaptive coping
• Discuss some organizational and individual interventions that can promote staff resilience
Traumatic Exposures as HCWs

- Pandemics – COVID 19 (SARS, H1N1, Ebola); predictable occurrence in light of globalization, travel, viral mutation, infection-illness latency (Morganstein et al, 2018)
- Staff member suicide
- Staff member suicide attempt in the hospital
- Sudden unexpected death of a colleague
- Homicide
- Tragic adverse clinical outcomes
- Decompensation of a staff member at work
- Assaults on a staff member
- Ethical dilemmas (life and death choices—who gets a ventilator)

- High exposure to severe health risk posed unique occupational stress (Maunder et al, 2003)
- High mortality rate 10%; intubation rate of 25%; 44 deaths in Toronto
- Primarily hospital-based transmission
- 40% of 20,000 quarantined in Toronto were HCWs
- At MSH, 11 healthcare workers ill with SARS; > 100 staff quarantined
- Perception of personal danger heightened by known lethality and emotional identification with hospitalized colleagues
- Working in SARS-affected hospitals was traumatic for some HCWs
  - an event that “threatens an individual’s life or physical integrity and involves a subjective response of fear, helplessness, or horror”

Ref: Dr. Molyn Leszcz
Early SARS research

The immediate psychological and occupational impact of the 2003 SARS outbreak in a teaching hospital

Robert Maunder, Jonathan Hunter, Leslie Vincent, Jocelyn Bennett, Nathalie Peladeau, Melyn Leszcz, Joel Sadavoy, Lieve M. Verhaeghe, Rosalie Steinberg, Tony Mazzulli

Fast-tracked article, published at www.cmaj.ca on Apr. 16, 2003

Long-term Psychological and Occupational Effects of Providing Hospital Healthcare during SARS Outbreak

Robert G. Maunder,† William J. Lancee,† Kenneth E. Balderson,† Jocelyn P. Bennett,†
Blug Borgundvaag,† Susan Evans,§ Christopher M.B. Fernandes,¶ David S. Goldbloom,††
Mona Gupta,† †† Jonathan J. Hunter,† Linda Mc Gillis Hall,† Lynn M. Nagle,† Clare Pain,††
Sonia S. Peczenik,‡‡ Glenna Raymond, §§ Nancy Read,‡ Sean B. Rourke,‡‡ Rosalie J. Steinberg,†
Thomas E. Stewart,†† Susan Van De Velde-Coke,‡ Georgina G. Veldhorst,¶¶
and Donald A. Wasylenki††
Adverse outcomes > 1 yr. after SARS

Table 4. Prevalence of adverse outcomes in Hamilton and Toronto healthcare workers*

<table>
<thead>
<tr>
<th>Adverse outcomes</th>
<th>Toronto, n = 587, %</th>
<th>Hamilton, n = 182, %</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High burnout (MBI-EE score ≥27)</td>
<td>30.4</td>
<td>19.2</td>
<td>0.003</td>
</tr>
<tr>
<td>High psychological distress (K10 score ≥16)</td>
<td>44.9</td>
<td>30.2</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>High posttraumatic stress (IES score ≥26)</td>
<td>13.6</td>
<td>8.4</td>
<td>0.06</td>
</tr>
<tr>
<td>Since SARS have</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decreased face-to-face patient contact</td>
<td>16.5</td>
<td>8.3</td>
<td>0.007</td>
</tr>
<tr>
<td>Decreased work hours</td>
<td>8.6</td>
<td>2.2</td>
<td>0.003</td>
</tr>
<tr>
<td>Increased smoking, drinking alcohol, or other behavior that could interfere with work or relationships</td>
<td>21.0</td>
<td>8.1</td>
<td>0.001</td>
</tr>
<tr>
<td>Missed ≥4 work shifts because of stress or illness</td>
<td>21.6%</td>
<td>12.6%</td>
<td>0.007</td>
</tr>
</tbody>
</table>

*MBI-EE, Maslach Burnout Inventory; K10, Kessler Psychological Distress Scale; IES, Impact of Events Scale; SARS, severe acute respiratory syndrome.

- Substantial psychological and occupational morbidity – high care demands on staff; absenteeism; ethical dilemmas; avoidance of patient exposure; burnout (*Maunder et al, 2003; 2006;2008*)
- 33-50% of SARS exposed HCWs experience substantial and lasting distress in the form of symptoms of anxiety/ depression/ burnout/ maladaptive coping (*Maunder et al, 2003; 2006;2008*)
- COVID19 is more contagious, higher media coverage, community>hospital spread >>potentially higher levels of distress
Psychological burden of COVID following similar SARS pattern

• Jan 29—Feb 3 cross sectional survey of 1259 Chinese HCWs
• 34 hospitals
• high rates of depression (50%), anxiety (45%), insomnia (34%),
• PTSD
• HCWs particularly at risk
  – front line workers
  – nurses,
  – younger staff
  – staff with young families
  – preexisting MH problems
Understanding and Addressing Sources of Anxiety Among Health Care Professionals During the COVID-19 Pandemic

- access to appropriate PPE
- being exposed to COVID-19 at work, bringing infection home
- rapid access to testing if symptoms develop
- fear of propagating infection at work
- uncertainty that organization will support/take care of personal needs if infected
- access to child care (during work hours and school closures)
- support for personal/family needs as work demands increase (food, hydration, lodging, transportation)
- being able to provide competent medical care if deployed to a new area
- lack of access to up-to-date information and communication

Jama Viewpoint Published online April 7, 2020
Specific populations groups have been affected by COVID-19 in different ways. Some of these are highlighted in this brief:

First responders and frontline workers, particularly workers in health and long-term care play a crucial role in fighting the outbreak and saving lives. However, they are under exceptional stress, being faced with extreme workloads, difficult decisions, risks of becoming infected and spreading infection to families and communities, and witnessing deaths of patients. Stigmatization of these workers is common in too many communities. There have been reports of suicide attempts and suicide death by health-care workers.

Mental health of healthcare workers during COVID-19 pandemic

- In Canada, 47% of health-care workers reported a need for psychological support.
- In the People’s Republic of China, healthcare workers reported high rates of depression (50%), anxiety (45%), and insomnia (34%).
- In Pakistan, large numbers of health-care workers have reported moderate (42%) to severe (26%) psychological distress.
The healthcare impact of COVID over time

1st Wave
Immediate mortality and morbidity of COVID-19

2nd Wave
Impact of resource restriction on urgent non-COVID conditions

3rd Wave
Impact of interrupted care on chronic conditions

4th Wave
- Psychic trauma
- Mental illness
- Economic injury
- Burnout

Health Footprint of Pandemic

Time

May 26, 2020
Russell Branzell, CEO and president of the College of Healthcare Information Executives (CHIME)
No One Is Supporting the Doctors

I have ceased to expect appropriate help from administrators, institutions, and the government itself.

APRIL 18, 2020

Steven McDonald
Professor of emergency medicine at Columbia University
Irving Medical Center

• “Abdication of leadership”

• “The directive throughout [residency] was that I needed to pull myself up by my bootstraps. No one would do it for me or teach me how”

• “As a physician, I was stuck in the middle, left to absorb the ire of patients who accused me of being uncaring”

• “These institutions, just like my attendings, are teaching me a lesson through absence: how to manage a pandemic alone. They could have counseled me on how to process the immense human suffering…Instead they mostly did not, leaving me to internalize my agony”

• “Now doctors are left alone to sort through our own mental anguish.”
Coronavirus pandemic could inflict emotional trauma and PTSD on an unprecedented scale, scientists warn

Researchers are warning that the coronavirus pandemic could inflict long-lasting emotional trauma on an unprecedented global scale.

The COVID-19 crisis has combined mental health stressors that have been studied before in other disasters, but which have never been seen consolidated in one global crisis, experts in trauma psychology said.

"The scale of this outbreak as a traumatic event is almost beyond comprehension," said one expert.
May 20, 2020

Prioritizing Physician Mental Health as COVID-19 Marches On

Jennifer Abbasi

Psychological trauma: a wave or a tsunami?

Credit: Richard Borge

Psychological Trauma Is the Next Crisis for Coronavirus Health Workers

Hero worship alone doesn’t protect frontline clinicians from distress

April 7, 2020 · by Joe Babaian · in Healthcare Leadership · 1 Comment
UNIQUE CHALLENGES OF HEALTH CARE PROVIDERS

COMMON REACTIONS DURING CRISIS

- Anticipatory anxiety (what if?)
- Feeling overwhelmed
- Frustrated with decision-makers (system)
- Irritation with communication issues
- Perceived lack of control
- Uncertainty about role, tasks or what guidelines apply (vs general public)
- Information overload/oversaturation
- Stress related to trial and error of dealing with an unprecedented event
- Sleep problems and anxiety

- Feeling conflicted between responsibilities and obligations (professional, family, community)
- Tensions with coworkers (tension between professions, specialties, hierarchies)
- Us vs them (general public vs health care providers)
- Ethical and moral dilemmas
- Helplessness and exhaustion
- Difficulty meeting the demands of the workload
- Fear of infecting self or family members
- Anxiety related to knowing colleagues who are infected at work
- Being in “go mode” (task-oriented, survival mode)
- Feeling detached
- Increased irritability

- Feelings of exhaustion
- Recovery period
- Potential for trauma-related reactions (e.g., PTSD, depression and anxiety)
- Potential growth and lessons-learned
<table>
<thead>
<tr>
<th>Request</th>
<th>Principal desire</th>
<th>Key components of response</th>
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<tbody>
<tr>
<td><strong>Hear me</strong></td>
<td>Listen to and act on health care professionals’ expert perspective and frontline experience and understand and address their concerns to the extent that organizations and leaders are able</td>
<td>Uncertainty whether leaders recognize the most pressing concerns of frontline health care professionals and whether local physician expertise regarding infection control, critical care, emergency medicine, and mental health is being appropriately harnessed to develop organization-specific responses. Create an array of input and feedback channels (listening groups, email suggestion box, town halls, leaders visiting hospital units) and make certain that the voice of health care professionals is part of the decision-making process.</td>
</tr>
<tr>
<td><strong>Protect me</strong></td>
<td>Reduce the risk of health care professionals acquiring the infection and/or being a portal of transmission to family members</td>
<td>Concern about access to appropriate personal protective equipment, taking home infection to family members, and not having rapid access to testing through occupational health if needed. Provide adequate personal protective equipment, rapid access to occupational health with efficient evaluation and testing if symptoms warrant, information and resources to avoid taking the infection home to family members, and accommodation to health care professionals at high risk because of age or health conditions.</td>
</tr>
<tr>
<td><strong>Prepare me</strong></td>
<td>Provide the training and support that allows provision of high-quality care to patients</td>
<td>Concern about not being able to provide competent nursing/medical care if deployed to new area (eg, all nurses will have to be intensive care unit nurses) and about rapidly changing information/communication challenges. Provide rapid training to support a basic, critical knowledge base and appropriate backup and access to experts. Clear and unambiguous communication must acknowledge that everyone is experiencing novel challenges and decisions, everyone needs to rely on each other in this time, individuals should ask for help when they need it, no one needs to make difficult decisions alone, and we are all in this together.</td>
</tr>
<tr>
<td><strong>Support me</strong></td>
<td>Provide support that acknowledges human limitations in a time of extreme work hours, uncertainty, and intense exposure to critically ill patients</td>
<td>Need for support for personal and family needs as work hours and demands increase and schools and daycare closures occur. Provide support for physical needs, including access to healthy meals and hydration while working, lodging for individuals on rapid-cycle shifts who do not live in close proximity to the hospital, transportation assistance for sleep-deprived workers, and assistance with other tasks, and provide support for childcare needs. Provide support for emotional and psychologic needs for all, including psychologic first aid deployed via webinars and delivered directly to each unit (topics may include dealing with anxiety and insomnia, practicing self-care, supporting each other, and support for moral distress). and provide individual support for those with greater distress.</td>
</tr>
<tr>
<td><strong>Care for me</strong></td>
<td>Provide holistic support for the individual and their family should they need to be quarantined</td>
<td>Uncertainty that the organization will support/take care of personal or family needs if the health care professional develops infection. Provide lodging support for individuals living apart from their families, support for tangible needs (eg, food, childcare), check-ins and emotional support, and paid time off if quarantine is necessary.</td>
</tr>
</tbody>
</table>
Hospital-based interventions can promote adaptive coping (Prevention, Intervention and Post-vention)

- Development of post SARS interprofessional pandemic team (later used for H1N1)
- Psychosocial pandemic plan—organizational disaster planning
- Buddy system
- On-line educational tools (Stress Vaccine)
- Measurable outcomes
  - Staff able to RTW without aversion
  - Decreased sick days
  - Organizational resilience, psychological preparedness
- Psychiatry has critical and essential role to play organizationally
- Resilience stress training rolled out organizationally
  - STEADY Project @SBK = Social Support, Tracking Distress, Education and Discussion Community

May 26, 2020
Psychological First Aid for Frontline Health Care Providers

A QUICK GUIDE TO WELLNESS
Stepped Approach

Figure 1: Stepped psychological response
Why groups?

“The solidarity of a group provides the strongest protection against terror and despair, and the strongest antidote to traumatic experience”. (J. Herman, Trauma and Recovery, 1997)

During traumatic periods such as pandemics, our interventions should focus on five important goals:

1. Create **safety** as we intervene to help.
2. Become **aware** of emotions and **put them to words**.
3. **Teach** and highlight concepts/behaviours that increase **resiliency**.
4. Articulate a sense of **meaning and purpose** for present actions.
5. Create a sense of supportive **community**. (Leszcz M, 2020)
COVID HCW Support Group Themes

Early Themes:

• Anticipatory anxiety ("calm before the storm",)
• Emotional contagion—anxiety spreading > virus
• Fear of personal exposure
• Scanning for COVID symptoms (somatic preoccupation)
• Guilt/fear of exposing family members
• Displaced anger (at community, admin, government, “us and them”)
• Distrust >> changing info (teammates, leadership, government)
• Stigma (interpersonal, societal)
• Existential crises (planning wills, POAs)
COVID HCW Support Group Themes (cont)

Mid-Crisis:
• Feeling irrelevant (unessential, undervalued)
• Restlessness (less time doing, more time thinking)
• Grief (loss of role, celebrations, transitions, patients, personal connection to colleagues)
• (Re)Traumatized (SARS)—insomnia, nightmares, avoidance, hyperarousal
• Moral injury (ethical dilemmas—vents, EOL care, resource allocation when we recover)
• Financial insecurity
• Not knowing vs. expected heroism
• Difficulty asking for and receiving help
Psychoeducation 101

Stress is an understandable, universally experienced response to extraordinary life circumstances
Stress Adaptation Model

• Stressors must be identified, articulated and normalized as much as possible >>> resilience
Hero not superhero: we are not perfect

COMMON PITFALLS: THE BURDEN OF THE SUPERHERO

The only mask you should be wearing is a medical mask; please discard the infallible mask, as research has shown it suffocates its users.

What you show: Secondary emotions
- Your reactions towards your primary emotions.
  - For ex: getting angry when scared
- How you cope with your vulnerability.
- What you show the world.

Under the surface: Primary emotions
- Your "gut" response to what is happening.
- Usually leaves you feeling more vulnerable (for ex., fear and hurt).
- Related to your needs, especially attachment needs (to be seen, comforted, reassured).
### Mental Health Continuum Model

<table>
<thead>
<tr>
<th>HEALTHY</th>
<th>REACTING</th>
<th>INJURED</th>
<th>ILL</th>
</tr>
</thead>
</table>

#### Signs and indicators

- **HEALTHY**
  - Normal fluctuations in mood
  - Normal sleep patterns
  - Physically well, full of energy
  - Consistent performance
  - Socially active
  - No trouble/impact due to substance use

- **REACTING**
  - Nervousness, irritability, sadness
  - Trouble sleeping
  - Tired/low energy, muscle tension, headaches
  - Procrastination
  - Decreased social activity
  - Limited to some trouble/impact due to substance use

- **INJURED**
  - Anxiety, anger, pervasive sadness, hopelessness
  - Restless or disturbed sleep
  - Fatigue, aches and pains
  - Decreased performance, presenteeism
  - Social avoidance or withdrawal
  - Increased trouble/impact due to substance use

- **ILL**
  - Excessive anxiety, easily enraged, depressed
  - Suicidal thoughts and intentions
  - Unable to fall or stay asleep
  - Exhaustion, physical illness
  - Unable to perform duties, absenteeism
  - Isolation, avoiding social events
  - Dependence

#### Actions to Take at Each Stage of the Continuum

- **Focus on task at hand**
  - Break problems into manageable chunks
  - Identify and nurture support systems
  - Maintain healthy lifestyle

- **Recognize limits**
  - Get adequate rest, food, and exercise
  - Engage in healthy coping strategies
  - Identify and minimize stressors

- **Identify and understand own signs of distress**
  - Talk with someone
  - Seek help
  - Seek social support instead of withdrawing

- **Seek consultation as needed**
  - Follow health care provider recommendations
  - Regain physical and mental health
Target Optimal Zone of Emotional Arousal

THE WINDOW OF TOLERANCE FRAMEWORK (WTF)

Adapted from Siegel, Ogden and Minton

High Activation Arousal (Hyper-arousal)
- fight, flight, panicked, agitated, obsessive, impulsive, overwhelm, angry, racing thoughts, anxiety

Sweet Zone
- Calm yet alert, wise, fully engaged, present

Low Activation Arousal (Hypo-arousal)
- No energy, can’t think, ashamed, depressed, passive, numb, helpless, dissociated, complete freeze, collapse
Anxiety=brain’s automatic survival mechanism becomes maladaptive

Maladaptive Cognitions:

• Threat Scanning—
  – frequently checking for COVID symptoms, mind assigns meaning to harmless events or minor symptoms

• Catastrophizing—
  – assuming the worst, “My family is going to get this from me” or mental images of losing loved ones.

• Hypothetical Worry—
  – "what if" thoughts that you have little control over, "What if someone gets to close to me at Costco and I get this?"

• Emotional Reasoning—
  – emotions that don’t reflect reality—"I feel so scared, I must be in danger"

• Fortune Telling—
  – mind interprets predictions as facts—"I’m going to stuck inside forever"
HEALTH PROVIDER'S MIND DURING COVID

- Do we have enough PPE? Am I safe?
- What new form?
- Should I self-isolate from my family?
- I just want to watch Tiger King
- Virtual care?
- God I need a hair cut
- If I hear about another webinar or listserve, I may lose it.
- Do I know enough about the COVID-19 to offer proper care?
- What if my colleagues knew my kids just spent 2 hours in front of the TV eating frozen pizza?
Maladaptive Behaviors

Day 5 in quarantine:

People: *stocking up on toilet paper and water*
Me:

@momshavingbadly
# Tripartite Coping Model
*(Folkman and Greer)*

## 1. Problem Focused
**things you can control**
- Availability of PPE
- Clear policies and procedures
- Training
- Problem solving
- Getting the facts
- Clear communication (assertiveness and listening)

## 2. Emotion Focused
**social connection and self care**
- Offer and accept support
- Avoid isolation
- Remember shared experience and expertise
- Prepare for procedures to change with new info
- Team building
- Avoid blaming and criticism
- Sleep, exercise and nutrition
- Healthy limits

## 3. Meaning Focused
**shared values and purpose**
- Reflect on the value of our work and why we chose it
- Work—its value to you, value to society
- Reflect on other sources of purpose and meaning
- Spiritual supports
**Ask: What can I reasonably control?**

<table>
<thead>
<tr>
<th>Within My Control</th>
<th>Outside My Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Building resilience</td>
<td>• Other people's decisions</td>
</tr>
<tr>
<td>• Following the latest information and advice</td>
<td>• Other people's health</td>
</tr>
<tr>
<td>• Focusing on what's important to me</td>
<td>• The news</td>
</tr>
<tr>
<td>• My information diet</td>
<td>• The government's actions</td>
</tr>
<tr>
<td>• My routine</td>
<td>• Schools opening or closing</td>
</tr>
<tr>
<td>• Relaxation</td>
<td>• The state of the healthcare system</td>
</tr>
<tr>
<td>• Cultivating connection</td>
<td>• Flights and holidays being cancelled</td>
</tr>
<tr>
<td>• Eating well</td>
<td>• Traffic</td>
</tr>
<tr>
<td>• Exercising</td>
<td>• Public transport</td>
</tr>
<tr>
<td>• Seeking and offering support</td>
<td>• Aging</td>
</tr>
<tr>
<td>• Voting and activism</td>
<td>• The weather</td>
</tr>
</tbody>
</table>
I CANNOT CONTROL
(So, I can LET GO of these things.)

IF OTHERS FOLLOW THE RULES OF SOCIAL DISTANCING

THE AMOUNT OF TOILET PAPER AT THE STORE

I CAN CONTROL
(So, I will focus on these things.)

THE ACTIONS OF OTHERS

MY POSITIVE ATTITUDE

TURNING OFF THE NEWS

FINDING FUN THINGS TO DO AT HOME

HOW LONG THIS WILL LAST

PREDICTING WHAT WILL HAPPEN

HOW I FOLLOW CDC RECOMMENDATIONS

LIMITING MY SOCIAL MEDIA

MY KINDNESS & GRACE

MY OWN SOCIAL DISTANCING

OTHER PEOPLE’S MOTIVES

Clipart: Carrie Stephens Art
TheCounselingTeacher.com
Sublimation (turning distress into success)

- Dr. Wang delivered 140,000 masks to > 30 GTA healthcare facilities, 200K more on the way
- volunteer pilots now flying PPE to Sudbury, Thunder Bay and Kapuskasing
25 Wellness Tips

1. Stick to a routine. e.g. Sleep Hygiene
2. Dress for the social life you want, not the social life you have.
3. Get out at least once a day, for at least thirty minutes.
4. Find some time to move each day, ideally for at least thirty minutes.
5. Reach out to others, once daily for thirty minutes.
6. Stay hydrated and eat well.
7. Develop a self-care toolkit. (sensory, vestibular and proprioceptive)
8. Spend extra time playing with children.
9. Give everyone the benefit of the doubt, and a wide berth.
10. Everyone find their own retreat space.
11. Expect behavioral issues in children, and respond gently.
12. Focus on safety and attachment.
Wellness Tips (continued)

13. Lower expectations and practice radical self-acceptance.
14. Limit social media and COVID conversation, esp. w/ children.
15. Notice the good in the world, the helpers.
16. Help others. Find ways, big and small, to give back to others.
17. Find something you can control, and control the heck out of it.
18. Find a long-term project to dive into.
19. Engage in repetitive movements and left-right movements.
20. Find an expressive art and go for it.
21. Find lightness and humor in each day.
22. Reach out for help—your team is there for you.
23. “Chunk” your quarantine, take it moment by moment.
24. Remind yourself daily that this is temporary.
25. Find the lesson. Find meaning in the face of suffering
Post-traumatic Growth and Resilience

Find a purpose

I stop compulsively consuming things that harm me, from food to news.

I think of how I can help others.

Use my skills to service the ones in need.

I show empathy to myself and others.

Who do I want to be during COVID-19?

Hoard food, toilet paper & medicines I don’t need
I complain all the time
I identify my emotions

I start letting go of things that are out of my control

I show gratitude

FEAR ZONE

LEARNING ZONE

I transmit my anger and fear related emotions to others

I make myself aware of the situation and think about the best way to act

I verify information before I share it

I live in the present and focus in the future

GROWTH ZONE

I acknowledge everyone is trying their best

I practice calmness, patience, relationships and creativity

I find ways to adapt to changes

I keep myself emotionally happy and transmit hope

I show gratitude

May 26, 2020
Maintain Hope
If you need more support

• Don’t’ wait!
• Contact your local wellness leads
• Self referral to confidential psychiatric support at CAMH

https://redcapsurveys.camh.ca/redcap/surveys/?s=JK4XK83AYC