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

Southern Ontario Obstetrics and Gyneacology Network
May 25, 2020

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when it matters MOST

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

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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)

Ref:Dr. Molyn Leszcz
Psychiatry UNIVERSITY OF TORONTO
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SARS Experience in Toronto (2003)

- 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
Psychiatry UNIVERSITY OF TORONTO
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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, Molyn Leszcz, Joel Sadavoy, Lieve M. Verhaeghe, Rosalie Steinberg, Tony Mazzulli

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

RESEARCH

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,* Bjug Borgundvaag,*† Susan Evans,§ Christopher M.B. Fernandes,¶# David S. Goldbloom,†** Mona Gupta,† †† Jonathan J. Hunter,*† Linda McGillis Hall,† Lynn M. Nagle,† Clare Pain,*† Sonia S. Peczeniuk,‡‡ Glenna Raymond,§§ Nancy Read,‡ Sean B. Rourke,†‡ Rosalie J. Steinberg,*† Thomas E. Stewart,*† Susan VanDeVelde-Coke,†† Georgina G. Veldhorst,¶¶ and Donald A. Wasylenki†‡

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Adverse outcomes > 1 yr. after SARS

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

Adverse outcomes	Toronto, n = 587, %	Hamilton, n = 182, %	p value
High burnout (MBI-EE score ≥27)	30.4	19.2	0.003
High psychological distress (K10 score ≥16)	44.9	30.2	<0.001
High posttraumatic stress (IES score ≥26)	13.8	8.4	0.06
Since SARS have			
Decreased face-to-face patient contact	16.5	8.3	0.007
Decreased work hours	8.6	2.2	0.003
Increased smoking, drinking alcohol, or other behavior that could interfere with work or relationships	21.0	8.1	0.001
Missed ≥4 work shifts because of stress or illness	21.6%	12.6%	0.007

*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


JAMA Network Open

Original Investigation | Psychiatry

Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019

Jianbo Lai, MSc; Simeng Ma, MSc; Ying Wang, MSc; Zhongxiang Cai, MD; Jianbo Hu, MSc; Ning Wei, MD; Jiang Wu, MD; Hui Du, MD; Tingting Chen, MD; Ruiting Li, MD; Huawei Tan, MD; Lijun Kang, MSc; Lihua Yao, MD; Manli Huang, MD; Huafen Wang, BD; Gaohua Wang, MD; Zhongchun Liu, MD; Shaohua Hu, MD

- Jan 29—Feb 3 cross sectional survey of 1259 Chinese HCWs
- 34 hospitals
- high rates of depression (50%), anxiety (45%), insomnia (34%),
- PTSI
- HCWs particularly at risk
  - front line workers
  - nurses,
  - younger staff
  - staff with young families
  - preexisting MH problems

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VIEWPOINT

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

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UN Policy Brief On Mental Health (May 13 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.[31] There have been reports of suicide attempts and suicide death by health-care workers.[32]

Mental health of healthcare workers during COVID-19 pandemic

- In Canada, 47% of health-care workers reported a need for psychological support.[33]
- In the People's Republic of China, healthcare workers reported high rates of depression (50%), anxiety (45%), and insomnia (34%).[34]
- In Pakistan, large numbers of health-care workers have reported moderate (42%) to severe (26%) psychological distress.[35]

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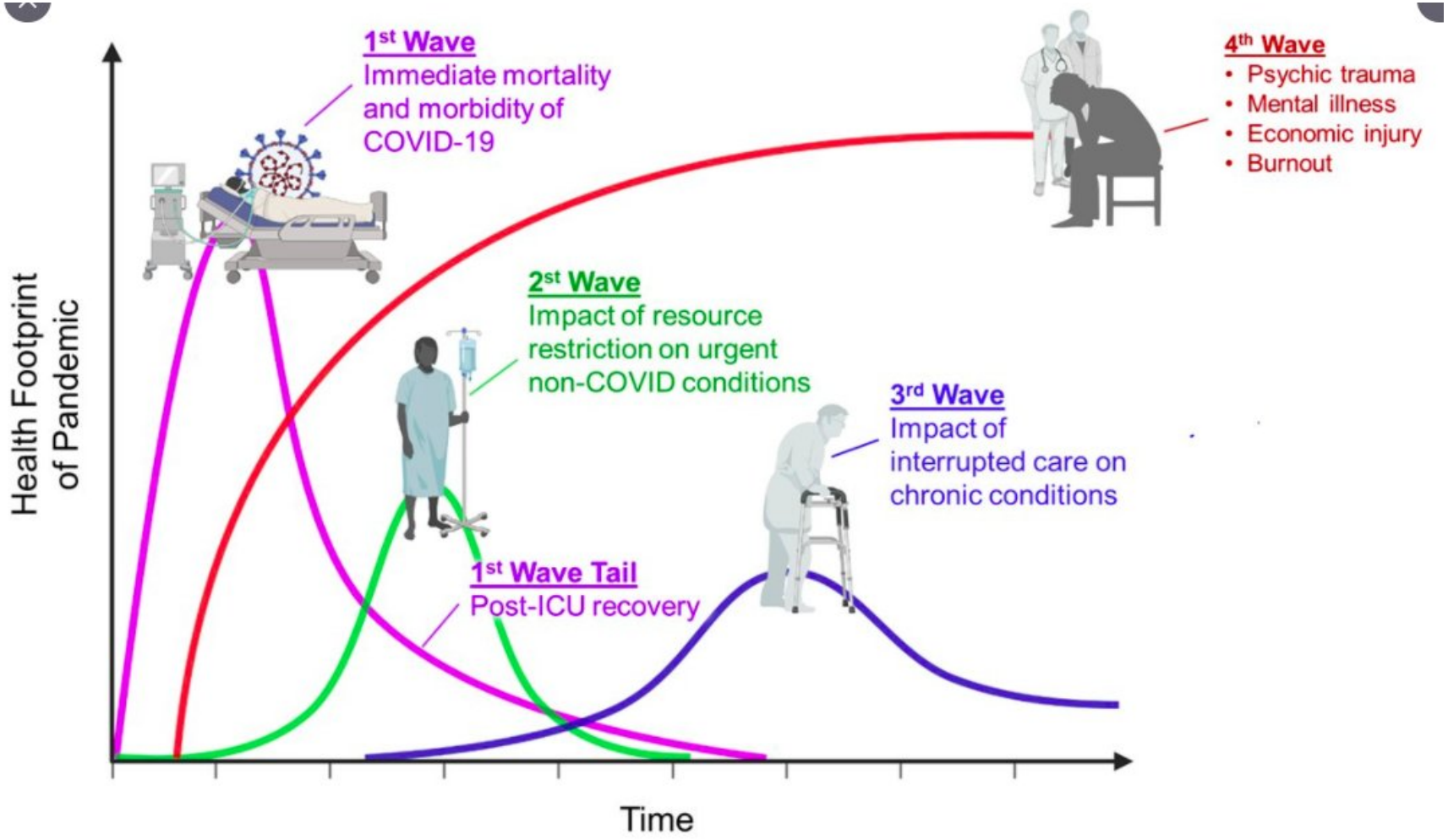
The healthcare impact of COVID over time



Russell Branzell, CEO and president of the College of Healthcare Information Executives (CHIME)

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IDEAS

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."*

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POLITICS

Coronavirus pandemic could inflict emotional trauma and PTSD on an unprecedented scale, scientists warn

PUBLISHED FRI, MAR 27 2020·7:27 PM EDT

Tucker Higgins
@IN/TUCKER-HIGGINS-5B162295/
@TUCKERHIGGINS

SHARE

KEY POINTS

- 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.

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May 20, 2020

Prioritizing Physician Mental Health as COVID-19 Marches On

Jennifer Abbasi

JAMA. Published online May 20, 2020. doi:10.1001/jama.2020.5205

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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

By: Jillian Mock

THE PANDEMIC'S 4TH WAVE

April 7, 2020 · by Joe Babaian · in Healthcare Leadership · 1 Comment

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UNIQUE CHALLENGES OF HEALTH CARE PROVIDERS

COMMON REACTIONS DURING CRISIS

Ramping up to 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 applies (vs general public)
- Information overload/oversaturation
- Stress related to trial and error of dealing with an unprecedented event
- Sleep problems and anxiety

In the thick of it

- 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

When the dust settles

- Feelings of exhaustion
- Recovery period
- Potential for trauma-related reactions (for ex., PTSD, depression and anxiety)
- Potential growth and lessons-learned

Table. Requests From Health Care Professionals to Their Organization During the Coronavirus Disease 2019 Pandemic

Request	Principal desire	Concerns	Key components of response
Hear me	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	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
Protect me	Reduce the risk of health care professionals acquiring the infection and/or being a portal of transmission to family members	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
Prepare me	Provide the training and support that allows provision of high-quality care to patients	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
Support me	Provide support that acknowledges human limitations in a time of extreme work hours, uncertainty, and intense exposure to critically ill patients	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
Care for me	Provide holistic support for the individual and their family should they need to be quarantined	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

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)

Psychological First Aid for Frontline Health Care Providers

A QUICK GUIDE TO WELLNESS

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Stepped Approach

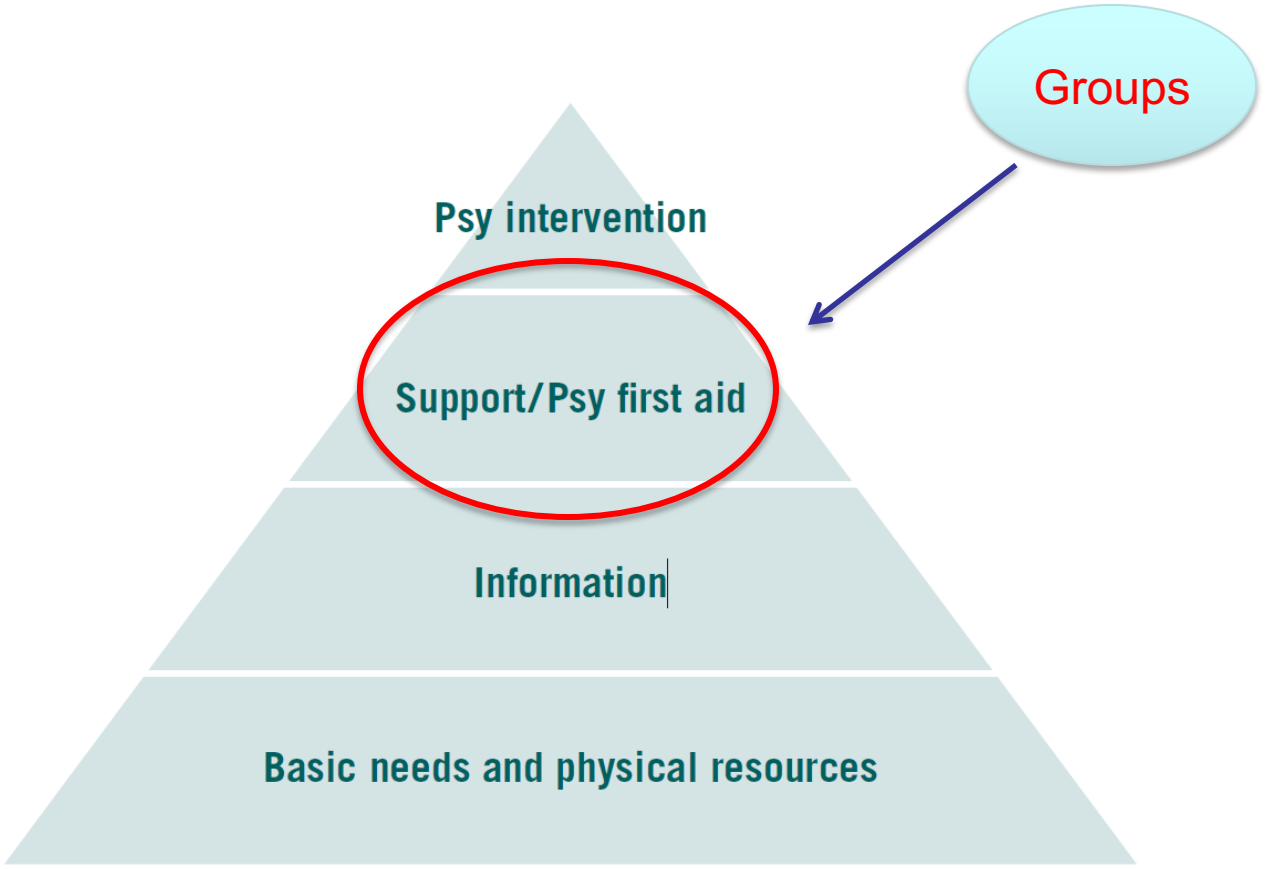

Figure 1: Stepped psychological response

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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

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Stress Adaptation Model

- Stressors must be identified, articulated and normalized as much as possible >>> resilience

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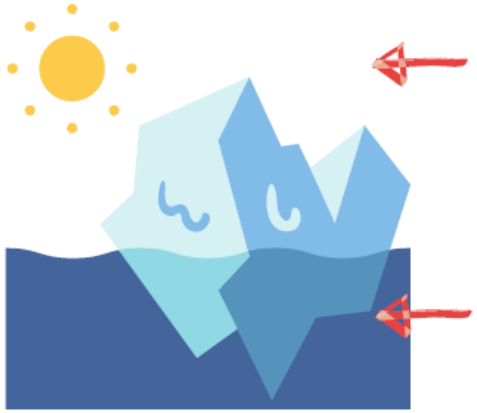
Hero not superhero: we are not perfect

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

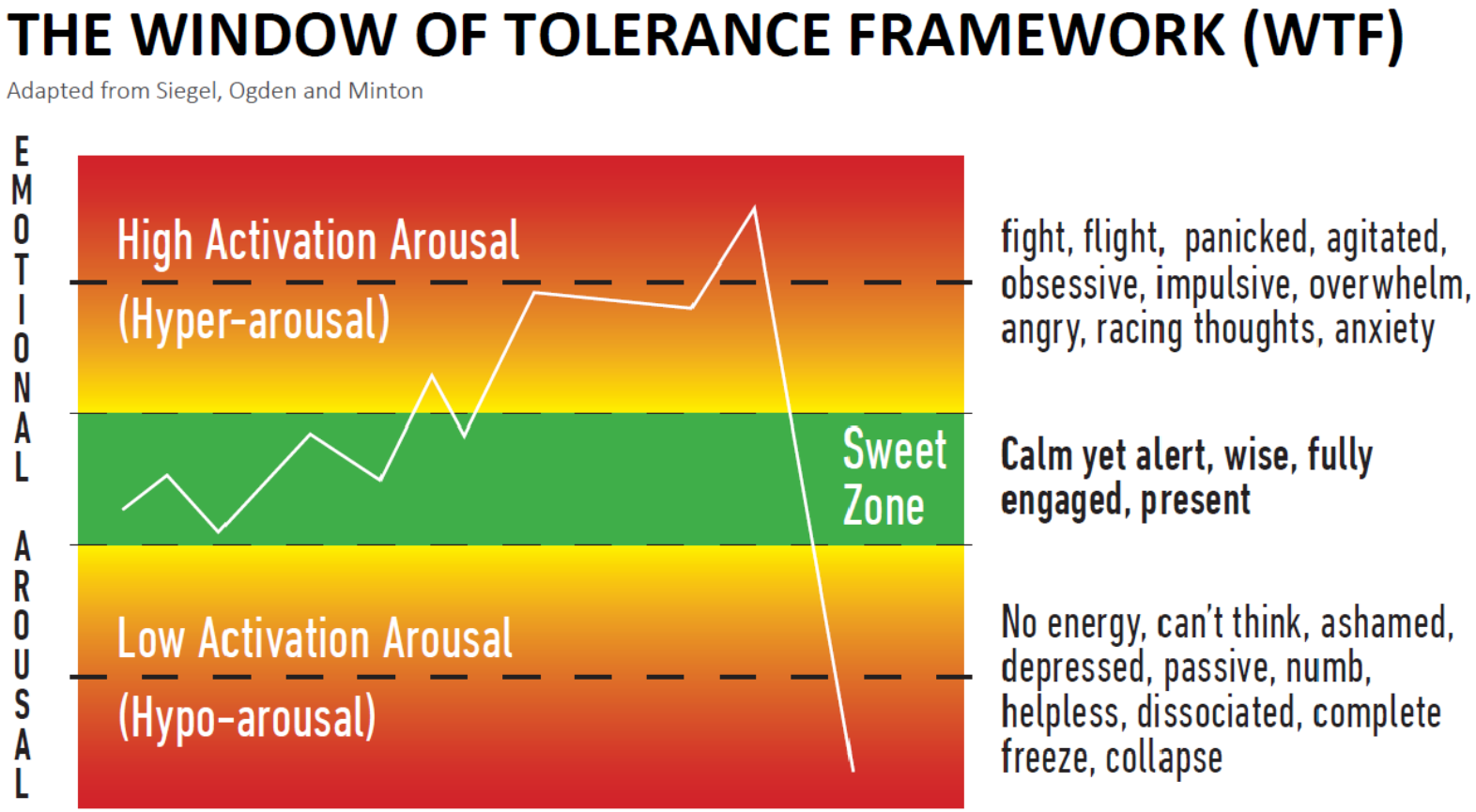
Signs and indicators

HEALTHY	REACTING	INJURED	ILL
▸ Normal fluctuations in mood ▸ Normal sleep patterns ▸ Physically well, full of energy ▸ Consistent performance ▸ Socially active ▸ No trouble/impact due to substance use	▸ Nervousness, irritability, sadness ▸ Trouble sleeping ▸ Tired/low energy, muscle tension, headaches ▸ Procrastination ▸ Decreased social activity ▸ Limited to some trouble/ impact due to substance use	▸ 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	▸ 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 ▸ Dependance

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



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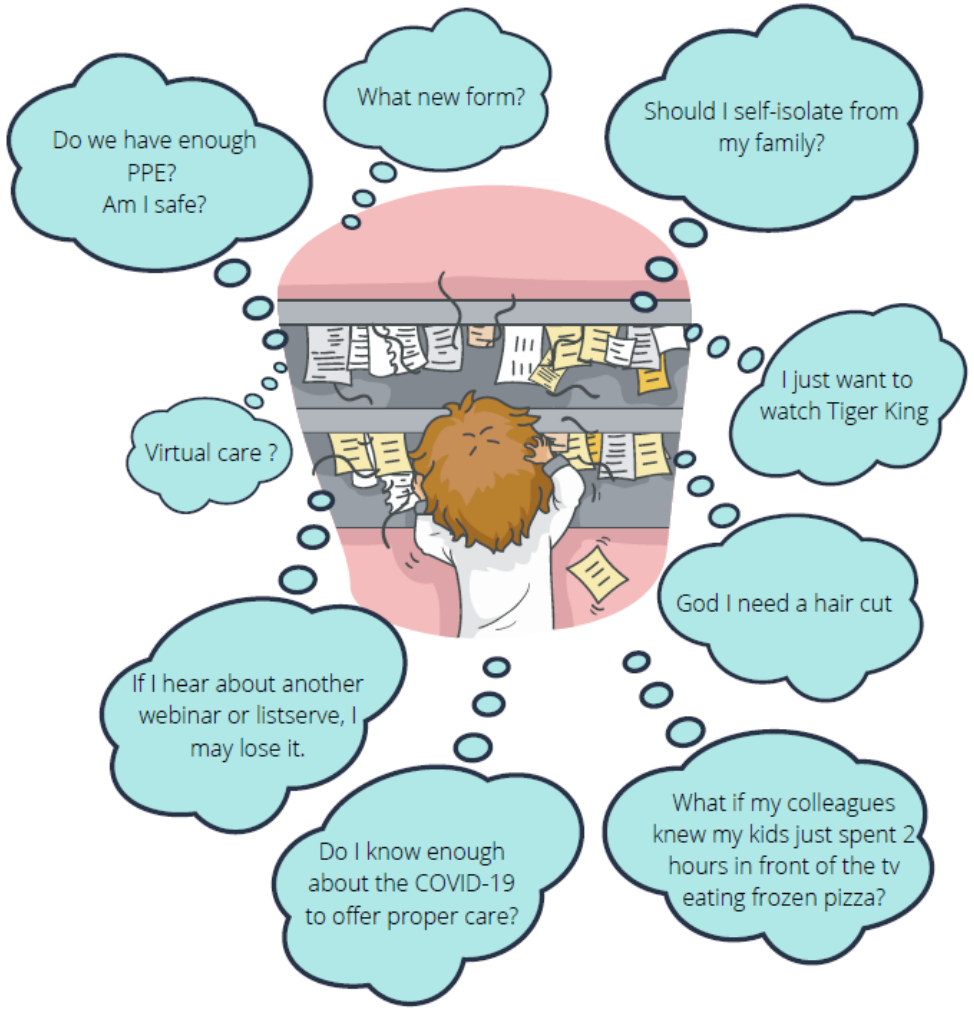
Anxiety=brain's automatic survival mechanism becomes maladaptive

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



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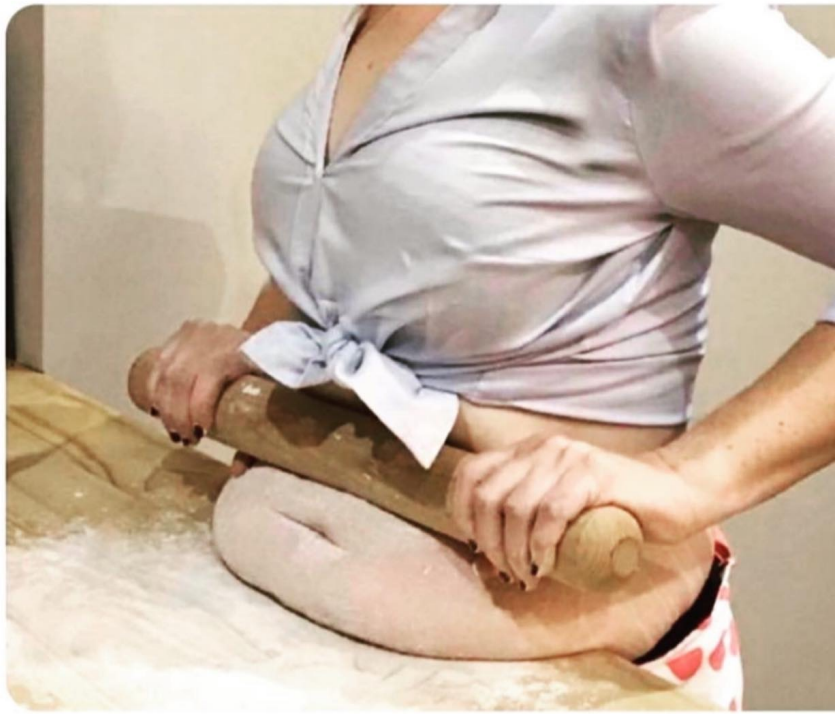
Maladaptive Behaviors

Day 5 in quarantine:



People: *stocking up on toilet paper and water*

Me:

amazonPrime

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?

Within My Control	Outside My Control
• Building resilience • Following the latest information and advice • Focusing on what's important to me • My information diet • My routine • Relaxation • Cultivating connection • Eating well • Exercising • Seeking and offering support • Voting and activism	• Other people's decisions • Other people's health • The news • The government's actions • Schools opening or closing • The state of the healthcare system • Flights and holidays being cancelled • Traffic • Public transport • Aging • The weather

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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

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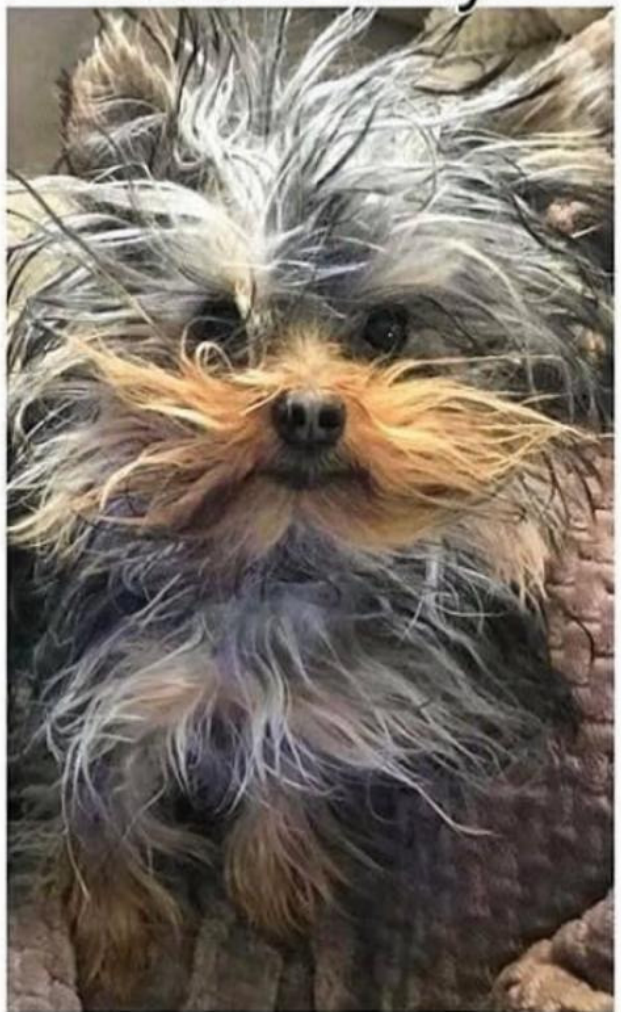
25 Wellness Tips

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.

Zoom Meeting

Audio only



With video

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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

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Maintain Hope

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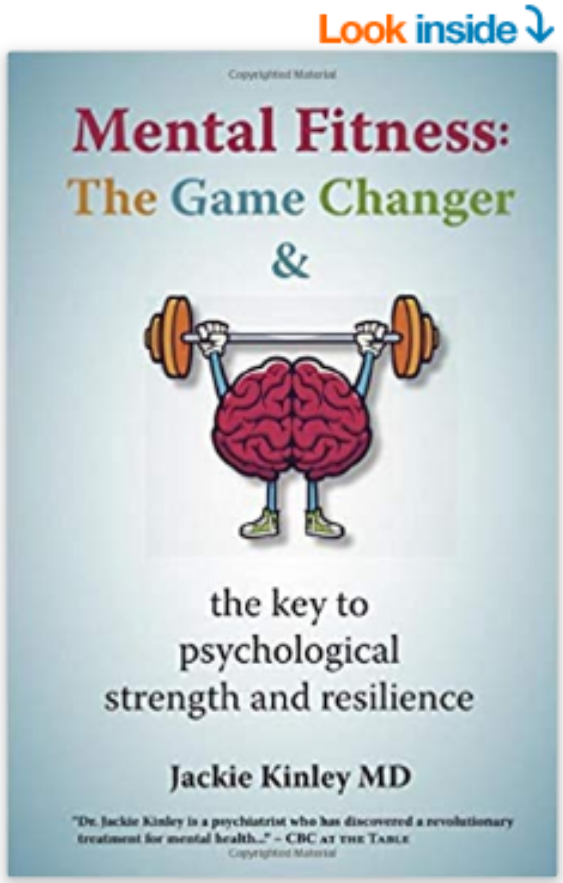

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If you need more support

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

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

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