BEYOND LIFE AND DEATH: ADDRESSING PSYCHOLOGICAL IMPACTS OF CRITICAL ILLNESS

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Consulted to Roche Canada
LEARNING OBJECTIVES

- To describe the impact of ICU stay on mental health outcomes of patients and families
- To review preventative interventions to improve psychological outcomes of patients and families following critical illness
- To discuss current strategies and interdisciplinary approaches to manage patient and family distress in the ICU during the COVID-19 period in Manitoba

Thank you to Dr. Kendiss Olafson for assistance with this presentation
For 3 weeks I was held in a room,
I was tied to the bed if I tried to get away.
I couldn’t talk; I couldn’t eat;
I was not allowed to sleep;
Groups of people would enter the room and look at me and talk about me and I was sometimes undressed in front of a small audience.
I was shot full of drugs;
I was too weak to move;
Sometimes, they would move me into another room so they could secretly try to kill me, or wait until the middle of the night to kill me when no one was around
I told my partner about the enemy in hushed tones so that they would not hear and redouble their efforts to kill me.
Where was I? They asked me everyday and I never knew the answer.
I was in the ICU of one of the best hospitals in the world, where nurses and doctors were using all the most current medical know-how to save my life.
What happened to me in the hospital? Yes, my life was saved, and I am grateful for that, but life AFTER the ICU was extraordinarily difficult, not only physically but also mentally.

https://americandeliriumsociety.org/blog/art-and-science-delirium

Nancy Andrews 2017
39 yr old with “The Flu”

Emergency room and hospital admission

- ICU admission with respiratory failure and shock
- Comatose, dialysis and heart-lung bypass
- Awakens with agitation and delirium req. antipsychotic/sedative medication
- Long stay in ICU, rehab in medical ward
- Returns home in wheelchair

Total time in hospital is 31 days

- 12 days of delirium or coma
ICU SURVIVAL

- ICU survival rates are improving (Esteban et al, 2013)
  - 1990-2005: Acute Respiratory Distress Syndrome (ARDS) survival has improved from 50-60% to 75% (Erikson et al, 2009)

- BUT, poor rates of return to pre-illness levels of physical, emotional, societal functioning and QoL (Oeven, 2010)
  - Neurocognitive disability (Hopkins et al, 2005)
  - Readmission to acute care, home care, functional dependency
  - High costs for post-ICU care
CRITICAL ILLNESS IS STRESSFUL

- Sources of stress identified by patients:
  - Pain
  - Thirst
  - Inability to communicate
  - Lack of control
  - Delirium
  - Lack of sleep
  - Noise
  - Fear of death
Post-Intensive Care Syndrome (PICS)

- New or worsening impairments in physical, cognitive or mental health status arising after critical illness and persisting beyond acute care hospitalization

Post Intensive Care Syndrome

- Patients (PICS)
  - Mental Health
    - Anxiety
    - PTSD
    - Depression
  - Cognitive Impairment
    - Executive function
    - Memory
    - Attention
    - Visuo-spatial
    - Mental Processing Speed

- Family Members (PICS-F)
  - Physical Impairments
    - Pulmonary
    - Neuromuscular
    - Physical function
  - Mental Health
    - Anxiety
    - PTSD
    - Depression
    - Complicated Grief
IMPACT OF ICU ON PATIENT MENTAL HEALTH

- Multiple factors contribute to poor mental health post-ICU
  - Ventilation/agitation in ICU
  - Sedation
  - Delirium
  - Hallucinations/delusions in ICU and memories of same
  - Pre-existing mental health issues (anxiety in particular)
  - Physical weakness/functional dependence
  - Economic stress, female, younger age, less social support

“It’s almost as if they have survived the acute illness but now suffer from the consequence of every last reserve in their body being drained” – Dr. Ian Fraser, National Post 2015
<table>
<thead>
<tr>
<th>Major Depressive Disorder</th>
<th>Generalized Anxiety Disorder</th>
<th>Panic</th>
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</thead>
<tbody>
<tr>
<td>Depressed mood most of the day (sad, empty, hopeless, tearful)</td>
<td>Excessive anxiety and worry on range of topics (&gt;6mo)</td>
<td>Abrupt surge of intense fear/discomfort w/4 of:</td>
</tr>
<tr>
<td>Diminished interest or pleasure in all/almost all activities</td>
<td>Difficult to control the worry</td>
<td>Increased HR/palpitations</td>
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<tr>
<td>Significant weight loss or weight gain/change in appetite</td>
<td>Restlessness/'on edge'</td>
<td>Sensation of choking</td>
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<tr>
<td>Insomnia or hypersomnia</td>
<td>Easily fatigued</td>
<td>Chest pain</td>
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<tr>
<td>Worthlessness or guilt</td>
<td>Difficulty concentrating-going blank</td>
<td>Sweating</td>
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<tr>
<td>Difficulty with concentration or decision making</td>
<td>Irritability</td>
<td>Trembling</td>
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<tr>
<td>Recurrent thoughts of death, suicidal ideation with or without a plan</td>
<td>Muscle tension</td>
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<td>Sleep disturbance</td>
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### Posttraumatic Stress Disorder

#### Exposure to actual or threatened death, serious injury, or sexual violence

<table>
<thead>
<tr>
<th>Intrusion symptoms</th>
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<tbody>
<tr>
<td>- recurrent, involuntary, distressing – memories, dreams, flashbacks of the event</td>
<td></td>
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<tr>
<td>- intense/prolonged distress with exposure to cues of event</td>
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<tr>
<td>- marked physiological reactions to cues related to event</td>
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<thead>
<tr>
<th>Avoidance</th>
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<tr>
<td>- memories, thoughts, or feelings related to event</td>
<td></td>
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<tr>
<td>- external reminders of event (people, places)</td>
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</table>

<table>
<thead>
<tr>
<th>Negative alterations in cognitions and mood</th>
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<tbody>
<tr>
<td>- inability to remember important aspects of event</td>
<td></td>
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<tr>
<td>- persistent/exaggerated negative beliefs</td>
<td></td>
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<tr>
<td>- persistent distorted cognitions about cause/consequence of event</td>
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<tr>
<td>- persistent negative emotional state</td>
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<tr>
<td>- feelings of detachment from others</td>
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<tr>
<td>- inability to experience positive emotions</td>
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<table>
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<tr>
<th>Alterations in arousal/reactivity</th>
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<tbody>
<tr>
<td>- irritable behaviour/angry outbursts</td>
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<td>- reckless/self-destructive behaviour</td>
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<td>- hypervigilance</td>
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<td>- exaggerated startle response</td>
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<td>- problems w concentration</td>
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<td>- sleep disturbance</td>
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<tbody>
<tr>
<td>Beeping noise of alarm at home → panic sx</td>
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<tr>
<td>Ongoing physical symptoms as cues</td>
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<tr>
<td>Not driving by hospital, avoiding medical appts</td>
<td></td>
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<tr>
<td>Not putting face under water/swallowing certain foods (choking sensation – ventilator/dyspnea)</td>
<td></td>
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<tr>
<td>Doctors/nurses can’t be trusted</td>
<td></td>
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<tr>
<td>I should have taken better care of myself so I didn’t end up so sick</td>
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</tr>
<tr>
<td>I will never be the same again</td>
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</tbody>
</table>
“Whatever the precise cause, the thing that makes these phenomena especially terrifying and insidious is the fact that unlike ordinary nightmares and more like paranoid delusions, they tend to occur in real time and to hook onto slices of external reality….. It is the merging of reality and vicious invention that is most confusing and upsetting. One quite literally loses one’s grip on what is true and what is false because the true and the false are mixed together in one mess of experience.”

-Cheryl Misak, PhD (Philosopher, Vice President and Provost UofT and ICU survivor) from “ICU Psychosis and Patient Autonomy: Some Thoughts from the Inside”, 2005
ICU RELATED MEMORIES

Myths:

- Patients don’t remember their ICU stay
  - They often do (not always factual or clear)
  - Frightening memories (often delusions and hallucinations) of the ICU stay are a well-established predictor of PTSD (e.g., Parker et al, 2015)
- We don’t need to consider mental health in the ICU because patients are asleep!
  - Goal is to keep patients awake and as minimally sedated as possible
<table>
<thead>
<tr>
<th>N=45</th>
<th>Memories reported (ICUMT) St. Boniface Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>95.6%</td>
<td>Remember parts of ICU stay</td>
</tr>
<tr>
<td>15.5%</td>
<td>Remember whole ICU stay clearly</td>
</tr>
<tr>
<td>75.6%</td>
<td>Confusion</td>
</tr>
<tr>
<td>66.7%</td>
<td>Breathing tube</td>
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<tr>
<td>66.7%</td>
<td>Voices</td>
</tr>
<tr>
<td>62.2%</td>
<td>Faces</td>
</tr>
<tr>
<td>57.8%</td>
<td>Discomfort</td>
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<tr>
<td>53.3%</td>
<td>Feeling “down”</td>
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<tr>
<td>46.7%</td>
<td>Panic</td>
</tr>
<tr>
<td>42.2%</td>
<td>Hallucinations</td>
</tr>
<tr>
<td>31.1%</td>
<td>People trying to hurt them</td>
</tr>
<tr>
<td>28.9%</td>
<td>Nightmares</td>
</tr>
</tbody>
</table>

Blood seeping from the walls, killer doctors: ICU hallucinations haunt a staggering number of patients

The doctors were standing in the corner of Cheryl Misak’s room, wearing little Christmas party hats. Then, they stripped naked...

Sharon Kirkey
Sep 24, 2015 • Last Updated 4 years ago • 7 minute read

Kredentser et al, (2018) CCM
MENTAL HEALTH OUTCOMES FOR PATIENTS

- “...this was and is the worst experience of my life...” (patient in our ICU diary study)

- Based on systematic reviews/meta analysis of mental health outcomes post-ICU:
  - 20% PTSD (Parker et al, 2015)
  - 25-46% Anxiety (Nikayin et al, 2016)
  - 43% Depression (Rabiee et al, 2016)

- N=45 study participants from SBGH (Kredentser et al, 2018)
  - 30 days post ICU
    - 20.5% Anxiety, 20.5% Depression, 12.8% PTSD
  - 90 days post ICU
    - 32.4% Anxiety, 13.5% Depression, 13.5% PTSD

12 mo. prevalence (DSM5)
- PTSD 3.5%
- GAD 2.9%
- Panic 3%
- MDD 7%
INCIDENCE AND PREVALENCE OF MENTAL HEALTH OUTCOMES
MANITOBA ICU POPULATION

- Used data from Manitoba Health at MCHP
- All ICU admissions between 2000-2012 with 5 year washout period to identify incident admissions
- 49,439 ICU patients were matched on age (+/-2), sex, region of residence and year of admission (+/-1 year) to develop 2 control study cohorts;
  - Non-ICU hospitalized cohort (N= 146,568)
  - General population (N= 141,937)
- Examined incidence and prevalence of Mental illness (Any mental illness, Mood & Anxiety, Personality Disorders, Psychotic disorders, Substance Abuse, Schizophrenia).
- Using MCHP data, PTSD is only identified for in-patient encounters
INCIDENCE OF NEW MENTAL HEALTH OUTCOMES

- ICU effect increased over time
- Risk of new mental disorder higher in:
  - Younger ages
  - Female sex
  - Preexisting comorbidities
  - Repeat ICU exposures

Sareen et al 2020 Crit Care Med
COVID-19 MENTAL HEALTH OUTCOMES

Mental disorders affect more than half of COVID-19 survivors: study

Graham Slaughter  CTVNews.ca Writer

Published Tuesday, August 4, 2020 5:39PM EDT

- N=402 COVID-19 survivors in Italy
- Psychiatric interview, standardized MH measures, inflammatory biomarkers
- 28% PTSD, 31% Depression, 42% anxiety, 20% OC symptoms, 40% insomnia
- Worse outcomes for outpatients, women, younger people, and pre-existing MH
- Baseline systemic immune-inflammation index (SII), which reflects the immune response and systemic inflammation based on peripheral lymphocyte, neutrophil, and platelet counts, positively associated with scores of depression and anxiety at follow-up.

Mazza et al 2020 Brain, Behavior and Immunity
## PREVENTING ADVERSE MENTAL HEALTH OUTCOMES

### ABCDEF Bundle

<table>
<thead>
<tr>
<th>Letter</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td><strong>Assess, prevent, and manage pain</strong></td>
</tr>
<tr>
<td>B</td>
<td><strong>Both spontaneous awakening trials and spontaneous breathing trials</strong></td>
</tr>
<tr>
<td>C</td>
<td><strong>Choice of analgesia and sedation</strong></td>
</tr>
<tr>
<td>D</td>
<td><strong>Delirium: Assess, prevent, and manage</strong></td>
</tr>
<tr>
<td>E</td>
<td><strong>Early mobility and exercise</strong></td>
</tr>
<tr>
<td>F</td>
<td><strong>Family engagement and empowerment</strong></td>
</tr>
</tbody>
</table>

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[https://www.icudelirium.org/medical-professionals/overview](https://www.icudelirium.org/medical-professionals/overview)

Pun et al 2019 CCM
ICU DIARIES

- The ICU Diary is a narrative tool that tells the story of the patients' ICU stay, helping them create a whole memory of the traumatic experience they faced.

- Bedside notebook for family, friends, visitors and hospital staff to document a patient's time in ICU.

- Health care staff and patients' relatives take part in writing entries on daily events, including procedures, treatments, changes in health, facts about patients' conditions, and their response to treatments.

- The entries, which are often accompanied by photographs, are in chronological order, and are written in second-person using in everyday language.
SUPPORT FOR ICU DIARIES

- Studied in numerous European centers with successful reduction in PTSD incidence in ICU survivors, as well as in their family members (e.g., Jones et al, 2010, 2012).
  - **50% reduction in PTSD** incidence for patients
  - Low cost to implement
  - No dependence on “high-tech” resources
- Qualitative interviews with families (Garrouste-Orgeas et al., 2014)
  - Used diaries to access, understand, and assimilate medical information written in diaries by staff members and share this information with other family members
  - Diaries enabled families to maintain a connection with the patient by expressing their presence and love. Families confided in diaries to maintain hope. Family members felt diaries humanized medical staff and patient. Family members felt valuable in the process.
PREVENTING ADVERSE MENTAL HEALTH OUTCOMES IN ICU

Preventing Posttraumatic Stress in ICU Survivors: A Single-Center Pilot Randomized Controlled Trial of ICU Diaries and Psychoeducation*

Maia S. Kredentzer, MSc; Marcus Blouw, MD, MHA, FRCPC; Nicole Marten, RN;
Jitender Sareen, MD, FRCP(C); O. Joseph Bienvenu, MD, PhD; Jennifer Iyu, MD; Brooke E. Beatie, MA;
Sarvesh Logsetty, MD, FRSCG, FACS; Lesley A. Graf, PhD; Shauna Eggertson, RN, RN;
Sophia Sweatman, MD, PhD; Braedon Debroni, MD; Nina Cintanfoe; Rakshi C. Arora, MD, PhD, FRSCG;
Ryan Zarychanski, MD, MSc, FRCP(C); Kendis Olson, MD, MPH, FRCP(C)

*See also p. 2048.

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4Department of Psychiatry, Faculty of Medicine, University of Manitoba, Winnipeg, MB, Canada.
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6Department of Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA.
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10Memorial Clinical Research Unit, Duke Cancer Institute, Duke University School of Medicine, Durham, NC.
11Department of Pediatrics, Faculty of Medicine, University of Toronto, Toronto, ON, Canada.
12Department of Family Medicine, MacLaren College of Medicine, Faculty of Health Sciences, University of Manitoba, Winnipeg, MB, Canada.
13College of Dentistry, Faculty of Health Sciences, University of Manitoba, Winnipeg, MB, Canada.
14Cantac: Sciences Program, St. Boniface General Hospital, Winnipeg, MB, Canada.

Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Clinical Trials Registration: Registration Number NCT020967509.

Supplemental digital content is available for this article, Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal’s website (http://ijicu.sagepub.com/compendium).

4-arm pilot RCT (TAU, ICU Diaries, Psychoeducation (PE), Diary +PE) at SBGH (10 bed ICU)

N=58 enrolled, N=45 completed

Mechanically ventilated >72 hours

Objectives: Critical illness can have a significant psychological impact on patients and their families. To inform the design of a larger trial, we assessed feasibility of ICU diaries and psychoeducation to prevent posttraumatic stress disorder, depression, and anxiety following ICU stays.

Design: Four-arm pilot randomized controlled trial.

Setting: A 10-bed tertiary ICU in Winnipeg, MB, Canada.

Patients: Critically ill patients greater than 17 years old with predicted ICU stays greater than 72 hours and mechanical ventilation duration greater than 24 hours.

Interventions: Patients were randomized to usual care, ICU diary, psychoeducation, or both ICU diary and psychoeducation.

Measurements and Main Results: Our primary objective was to determine feasibility measured by enrollment/retention. Secondary outcomes included acceptability of the ICU diary intervention and psychological distress, including patients’ memories 1 week post...
MEASURES

ICU Admission
- Demographics
- Diagnosis
- Illness severity

Daily in ICU
- Evaluation of diaries (feasibility)
- Agitation
- Sedation (RASS)
- Delirium (CAM-ICU)

ICU Discharge
- Length of ICU stay
- Survival

Hospital Discharge
- Length of hospital stay
- Survival

1 week follow up
- Memories (ICU Memory Tool)

30 day follow up
- PTSD symptoms (IES-R)
- Anxiety and Depression (HADS)

90 day follow up
- PTSD symptoms (IES-R)
- Anxiety and Depression (HADS)

1 week follow up
- Memories (ICU Memory Tool)

30 day follow up
- PTSD symptoms (IES-R)
- Anxiety and Depression (HADS)

90 day follow up
- PTSD symptoms (IES-R)
- Anxiety and Depression (HADS)
 RESULTS

- Between 30 day and 90 day f/u
  - Diary + Psychoeducation arm had sig. decreases in depression and PTSD scores
- At 90 day f/u
  - Sig. lower anxiety scores in Diary and Diary + Psychoeducation arms
  - Trending lower depression scores in Diary + Psychoeducation arm
Implementing an intensive care unit (ICU) diary program at a large academic medical center: Results from a randomized control trial evaluating psychological morbidity associated with critical illness

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4Department of Pulmonary, Critical Care Medicine, and Sleep Medicine, University of New Mexico School of Medicine, 5 University of New Mexico, Albuquerque, NM 87131, USA

ABSTRACT
Background: Psychological morbidity in both patients and family members related to the intensive care unit (ICU) experience is an often overlooked, and potentially preventable, healthcare problem recognized by the Society of Critical Care Medicine as Post-Intensive Care Syndrome (PICS). ICU-related psychological morbidity, including ICU-related post-traumatic stress disorder (PTSD), depression, and anxiety. As we encounter a growing number of ICU survivors, in particular in the wake of the coronavirus pandemic, clinicians must be equipped to understand the severity and prevalence of significant psychiatric complications of critical illness.

Methods: We compared the efficacy of the ICU diary, written by family and healthcare workers during the patient’s intensive care course, versus education alone in reducing acute PTSD symptom after discharge. Patients with an ICU stay >72 h, who were intubated and mechanically ventilated over 24 h, were randomized and randomized to either receive a diary at bedside with psychosocial intervention or psychosocial intervention alone. Intervention participants received their ICU diary within the first 24 h of admission into the intensive care unit. Psychological symptom screening with IES-R, PHQ-9, IAMQ and CPTSD was used at baseline within 1 week of ICU discharge and at weeks 4, 12, and 24 after ICU discharge. Change from baseline in three nurses was assessed using Wilcoxon rank sum test.

Results: From September 26, 2017 to September 25, 2018, our team screened 263 patients from the medical and surgical ICUs at a single large academic urban hospital. 60 patients were enrolled and randomized, of which 59 patients completed post-ICU discharge follow-up (α = 0.10) in the diary intervention group (n = 177) in the educationally control group. The control group had a significantly greater decline in PTSD, hyperarousal, and depression symptoms at week 4 compared to the intervention group. There were no significant differences in other measures, or in other follow-up intervals. Both study groups exhibited clinically significant PTSD symptoms at all timepoints after ICU discharge. Follow-up phone interviews with patients revealed that while many were interested in getting follow-up for their symptoms, there were many barriers to accessing appropriate therapy and clinical attention. Conclusion: Results from psychological screening tools demonstrate the need for ICU diary given immediate, bedside education alone in reducing PTSD symptoms related to the intensive care stay. However, our study finds an important gap in clinical practice – patients at high risk for PICS are already connected to appropriate follow-up care. Perhaps ICU diaries would prove beneficial if utilized to support the work within a program providing wraparound services and chronic physical follow-up for PICS patients. This study demonstrates the high prevalence of ICU-related PICS in our cohort of survivors, the high barrier to accessing care for appropriate treatment of PICS, and the consequence—prolonged psychological morbidity.

Trial registration: NCT03199595

Grant identification: GH-17-022 (Arnold P. Gold Foundation).

1. Background

Patients enduring critical illness carry an increased risk for developing new-onset post-traumatic stress features related to their course in the intensive care unit (ICU). This is largely due to the near-death nature of their medical conditions and complicated hospital courses, which often involve acute stress, delirium, and delusional memories.

The prevalence of post-traumatic stress disorder (PTSD) in ICU survivors is estimated at 25–60% after the first month following discharge, and 17–54% during the next 6–12 months.[1, 2] ICU-related psychological sequelae, such as PTSD, depression, and anxiety, comprise clinically important components of Post-Intensive Care Syndrome (PICS). Both post-ICU PTSD and depression are associated with a significant decrease in patient quality of life after...
• Delivery of the diary may be a key component of the intervention
• Reading a diary is very emotional for patients (avoidance)
• Diaries may not address delusions/hallucinations and this requires a trained therapist (ideally a health psychologist with understanding of ICU and PTSD) to guide and integrate
COLLABORATION AND RESEARCH

- Canadian COVID19 Prospective Cohort Study (CanCOV) (PIs: Cheung & Herridge)
- Understanding and managing the effects of COVID-19 restricted visitation policies on the families and healthcare providers of critically ill patients (PI: Fiest)
COLLABORATION AND RESEARCH

The RECOVER Program
A patient and family-centered practice standard for follow-up care after critical illness and National ICU-outcomes (PI: Dr. Margaret Herridge, U of T/UHN)
Caregiving post-ICU is stressful

Post-ICU family members 3-6 month prevalence rates of:

- 15-35% for anxiety
- 6-26% for depression (16% with sig. sx at one year follow-up)
- 33-49% for PTSD
- 28-46% for complicated grief

(e.g., Long, Kross, Davydow, & Curtis, 2014; Cameron et al 2016 NEJM)
WHAT DO FAMILIES NEED IN THE ICU?

Needs of Family Members

**Assurance**
- Assurance that their loved one is being cared for

**Communication**
- Clear, timely honest communication about their loved one’s condition, treatment plan and prognosis

**Shared Decision-making**
- Opportunity to participate in decision-making

**Psychological Support**
- Understanding the most frequent psychological responses to a loved one in ICU and providing support

**Access to loved one**
- Unrestricted access to their loved one

Azoulay 2001 Am J Respir Crit Care Med
PREVENTING ADVERSE CAREGIVER OUTCOMES

- Provision of accurate and consistent information
  - Leaflet, consistent messaging from different HCP
  - Regular meetings with team and family – screen family mental health, comprehension, satisfaction
- End-of-life conferences
  - Private, dedicated room, information about bereavement
- Discussions of organ donation
  - Families of non-donors report less support and less satisfaction with communication
- Choice in what they witness
  - CPR, death

*de Jong et al 2020 Post-intensive care syndrome (book Eds Preiser, Herridge, Azoulay)*
Manitoba

'I don't want to see him die': Winnipeg woman fighting to visit COVID-positive husband in ICU


Ban on hospital visitors has profound effect on patients, families

Family members play key role in patient care, advocates say

CBC Radio · Posted: Apr 17, 2020 8:40 PM ET | Last Updated: April 18
Keeping in Touch through Touch Screens, Thanks to HSC Foundation Donors

April 24, 2020

“This technology may be the only way families can see their loved ones before they pass away”

Since launching the HSC Foundation COVID-19 Crisis Response Fund, we purchased and placed ten iPads in HSC Winnipeg’s Intensive Care Unit (ICU) to allow communication between patients and their loved ones while hospital visitor restrictions are in place.

In this interview, ICU physician Dr. Kendiss Olafson reflects on the importance of this initiative.

- Between April 21 and July 31 there were 1170 ICU admissions across the 5 ICU (Grace ICU, MICU, SICU, ICMS, ICCS) (70 Beds)
- April 21-June 8 Strict visitor restrictions
- June 9-July 31 Less strict visitor restrictions

Med students connect ICU patients and families during COVID-19 lockdown

MAY 21, 2020 — Third-year medical students are working in hospitals around Winnipeg to ensure ICU patients are able to stay in touch with their families while visitor restrictions due to COVID-19 are in place.

The students have been volunteering for the last month as family liaisons to facilitate video conferencing between patients and their families.

The program started when Dr. Kendiss Olafson, an ICU attending physician and assistant professor of internal medicine at the Max Rady College of Medicine, recognized that the visitor restrictions could cause a further mental health burden on patients and families and decided to reach out to the students.

Medical student Anita Gray is volunteering at St. Boniface Hospital, where between her and two other students, there is someone present seven days a week. She says the program has been very popular with patients and families.

“I wasn’t sure how people would react, but it has been so positive. They haven’t shied away and most people do it every day,” says Gray.

Much of the students’ role is to act as tech support, setting up meetings for patients with family members.
ICU FAMILY LIAISON PROJECT

- N=47 medical student volunteers (Med 1,2,3)
- Video conferencing visits between patients and families (iPad provided for patients)
- Phone visits between patients and families
- Use of the Get to Know my Loved One form
- Video/telephone conferencing with the medical team
- ICU webpage with resources
- Daily calls with the patient-family liaison
- Process for referral to Social Work, Spiritual Health Services, Indigenous Health Services, Clinical Health Psychology

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https://wrha.mb.ca/critical-care/communication-with-patients-in-icu/
BRIEF TREATMENT FOR FAMILY MEMBERS IN DISTRESS

- 1-3 phone or video sessions
- Anxiety/worry
- Insomnia
- Acute grief
- Questions about patients’ health, psychological state (delirium), and communication with team
- Facilitating use of other resources (e.g., EAP)
Surveys to patients, families, and staff who participated in family liaison intervention

ICU location, length of stay, engagement with and utility of tools offered

Data entered for N=668 admissions
- 52% had family liaison involvement
- 1618 virtual visits logged
NEXT STEPS

- Further evaluation of the family liaison intervention through qualitative methods
  - Interviews with patients and family members who were in ICU during the period of visitor restrictions
  - Focus groups with staff and family liaison volunteers who worked in the ICU during the period of visitor restrictions
“...solely addressing physiological recovery in the ICU, without also placing focus on psychological recovery, is limiting and not sufficient for recovery of the entire patient—both body and mind.” (Karnatovskaia et al, 2015, p.210)
APPLYING MASLOW'S HIERARCHY OF NEEDS

Self-Actualization
- Incorporating spiritual values into patient care, acceptance of new limitations, reconciliation of new identity

Esteem
- Respectful team communication, recognition of dignity/value in each patient, optimizing pre-illness cognition and physical function through rehabilitation

Love and Belonging
- Open visitation of family/friends, family rounds, daily awakening for patient/family interaction, post-ICU support groups and post-ICU clinics

Safety
- Prevention of errors: protocolization/ABCDE’s, delirium monitoring and management, hospital acquired infections, falls, DVTs, pressure ulcers, medication errors

Physiological
- Support for failing organs (e.g., M.V., vesopressors, dialysis), pain and symptom management, nutrition

Jackson et al, 2014

Karnatovskaia et al, 2015
Early intra-intensive care unit psychological intervention promotes recovery from post traumatic stress disorders, anxiety and depression symptoms in critically ill patients

Adriano Peris, Manuela Bonizzoli, Dario Iozzelli, Maria Luisa Migliaccio, Giovanni Zagl, Alberto Bacchereti, Marta Debolini, Elisetta Vannini, Massimo Solaro, Ilaria Balzi, Elisa Bendoni, Ilaria Bacchi, Valtere Giovannini & Laura Belloni

February 18, 2019

Effect of a Nurse-Led Preventive Psychological Intervention on Symptoms of Post-traumatic Stress Disorder Among Critically Ill Patients

A Randomized Clinical Trial

Dorothy M. Wade, PhD; Paul R. Mouncey, MSc; Alvin Richards-Belle, BS; et al.

https://www.apa.org/monitor/2016/12/integrated-care
WHAT SHOULD BE THE ROLE OF A PSYCHOLOGIST IN CRITICAL CARE?

- “This is a highly complex role in a sensitive, complex, medical environment”

- Acute care
  - Supervise psychological and cognitive assessment of all patients in ICU (e.g., IPAT tool)
  - Providing or supervising psychological support to patients and relatives who are highly stressed or traumatized
  - Help staff manage communication with distressed families
  - Attending multidisciplinary rounds, consultation on issues related to communication, sleep, effects of sedation, anxiety, stress, mood, delirium, behavioural challenges, family issues

- Follow-up care
  - Comprehensive assessment, treatment planning, and treatment delivery for post-ICU psychological distress

- Support ICU staff
  - Strategies to address stress and burnout
  - Consultation regarding organizational/systemic issues influencing patient and staff wellbeing
TAKE HOME MESSAGES

- ICU stay is associated with short and long term adverse mental health outcomes for patients and their caregivers
- Interventions within the ICU (e.g., ABCDEF, ICU diaries, psychologist involvement in care) and comprehensive ICU follow-up care can improve these outcomes
- Use of volunteers in the ICU to facilitate technology for ongoing communication is feasible and important to patients, families, and staff
- Continued partnership between critical care and clinical health psychology is an important step in promoting recovery of the whole person following ICU stay
RESOURCES

- https://icusteps.org
- www.icu-diary.org
- https://artandscienceofdelirium.wordpress.com
- https://www.icudelirium.org
THANK YOU

- Dr. Kendiss Olafson
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- Dr. Gloria Vasquez Grande
- Dr. Carmen Hrymak
- Dr. Clare Ramsey
- Family Liaison volunteers
- Wpg Critical Care Program Family Advisory Group
- Family liaison program collaborators (spiritual care, social work, Indigenous health)
QUESTIONS?