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“I was just … and then out of nowhere, the patient kicked me!” -

Supporting Staff to Manage Aggressive Patient Behaviour in Acute Care: A Randomized Controlled Trial

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All those who helped along the way

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- **Pilot Unit 2015:** 10 North ACE Unit
- **Research Study Units:** 10S, 11S, 11N, 12S, 14S, 14N

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Research Grant

- Academic Health Science Centre (AHSC) Alternative Funding Plan (AFP) Innovation Fund

We have no disclosures

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What are we going to be talking about today?

The Behavioral Universal Precautions (UP) Research Project

- An evidence-based, comprehensive program for minimizing the risk for healthcare workers of aggressive behaviour from patients

- Mount Sinai investigators received a 2 year AFP Innovation Fund grant to **implement and evaluate** the UP program

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Agenda

- Safe Patients/Safe Staff
- Workplace Violence Overview
- Universal Precautions Aggressive Behaviour Alert Research Project

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Learning Objectives

1. Describe the challenges of addressing patient aggressive behaviour in the acute care setting with sensitivity to the patient experience
2. Become familiar with the recommended approaches for managing risks of aggressive behaviour and the lack of controlled trials evaluating implementation impact
3. Review the results of our randomized controlled trial evaluating the effects of the Aggressive Behaviour Alert program on staff outcomes

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Patient Cases

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What we heard…..

I sure hope the nurses wouldn't stop caring for my mom just because she tried to hit one time when she was in pain

Do you know how many times I've gone in to give care and been hit out of nowhere?

I got kicked and scratched for no reason. I am just trying to do my job.

"We need to keep ourselves and our patients safe"

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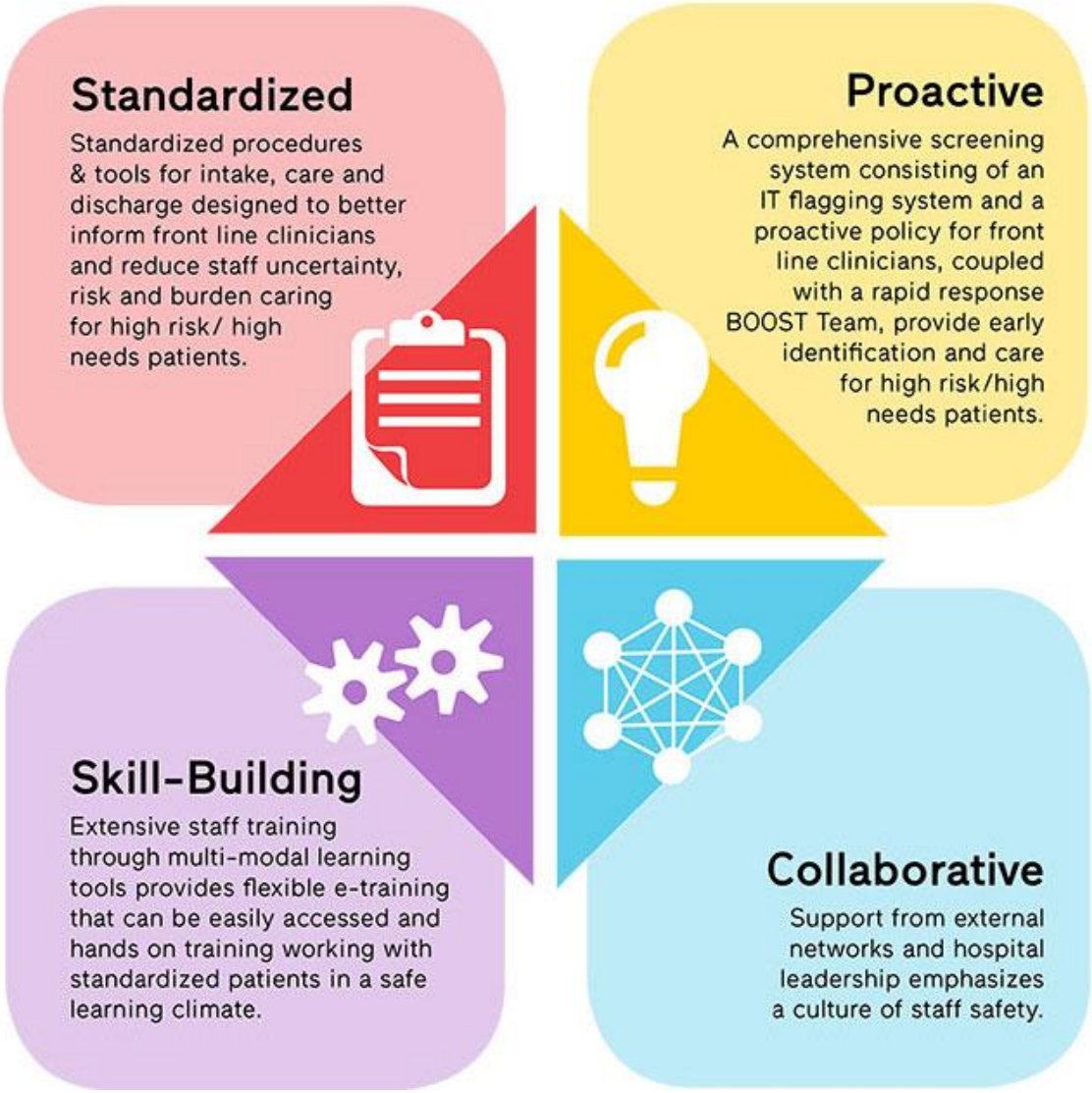
Safe Patients/Safe Staff™ Program: A Four-Pronged Approach



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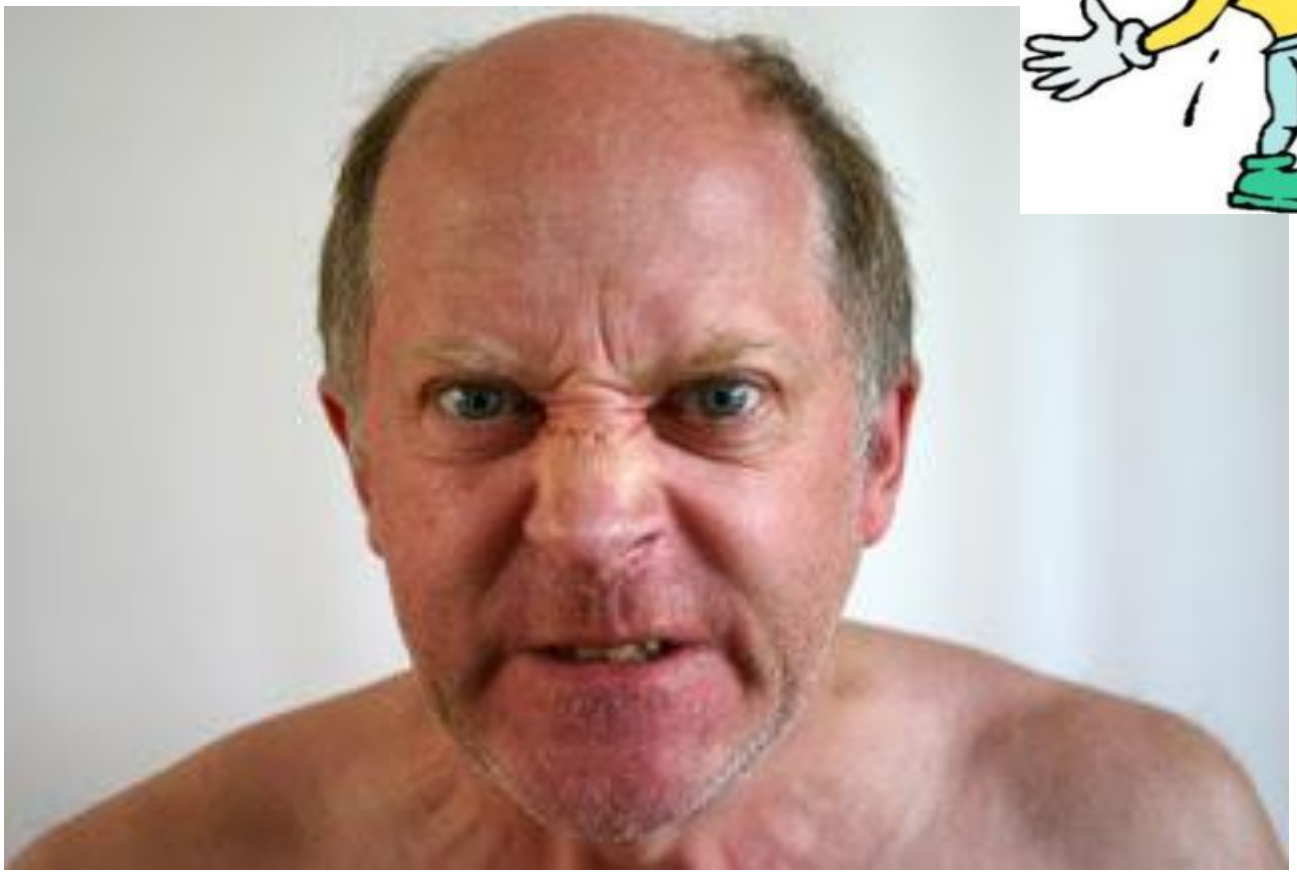
Patient Case



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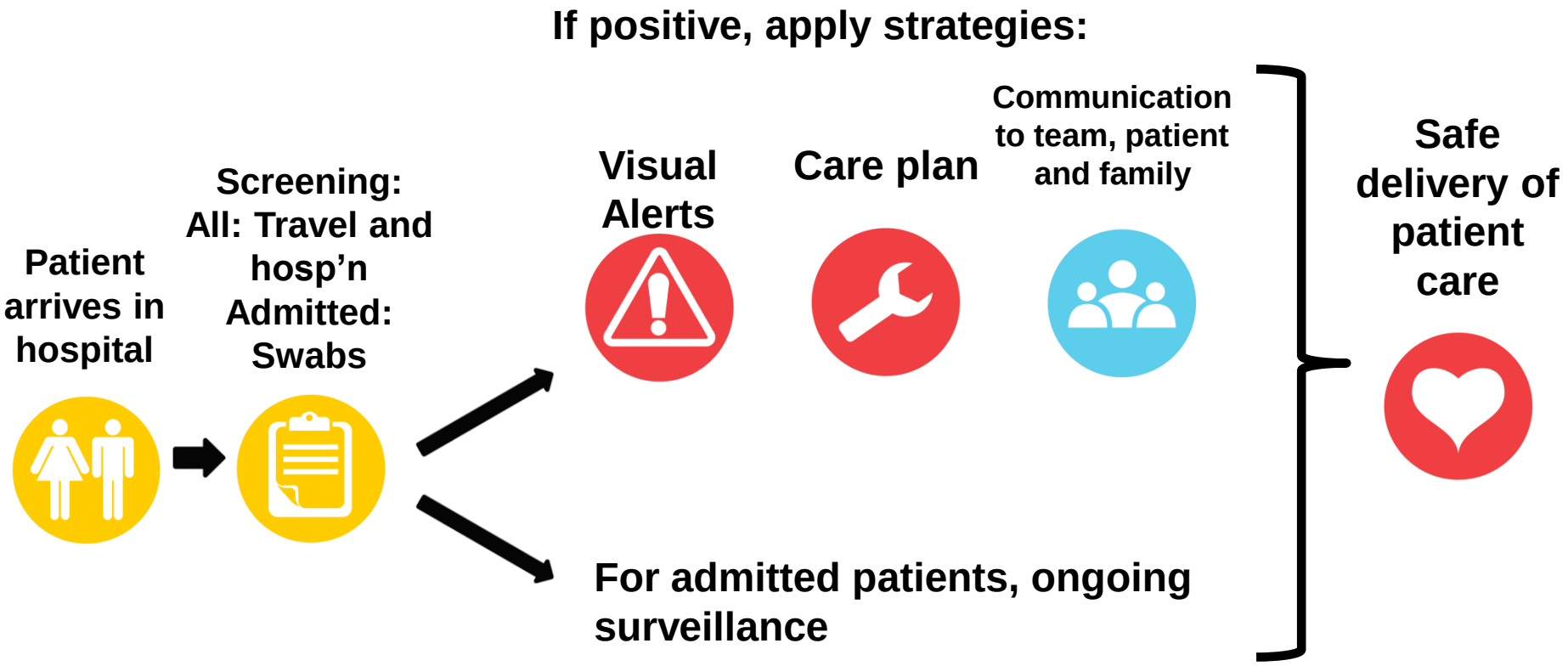
Infection Prevention & Control



Routine Practices used for all patient care: Includes Hand Hygiene, Personal Protective Equipment, Safe Handling of Sharps, etc.

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Workplace Violence

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Aggressive Behavior in Healthcare

- The healthcare sector has one of the highest levels of workplace violence (De Léséleuc, 2007; Farrell et al., 2006)
- Patients are the most common source of aggressive behaviour (Wang et al., 2008; O'Brien-Pallas & Whitehead, 2005)
- Under the Occupational Health and Safety Act employers have obligations to protect workers, including disclosure of information about a violent or potentially violent patient, to keep employees safe (Occupational Health & Safety Act, 1990, last amendment 2014)

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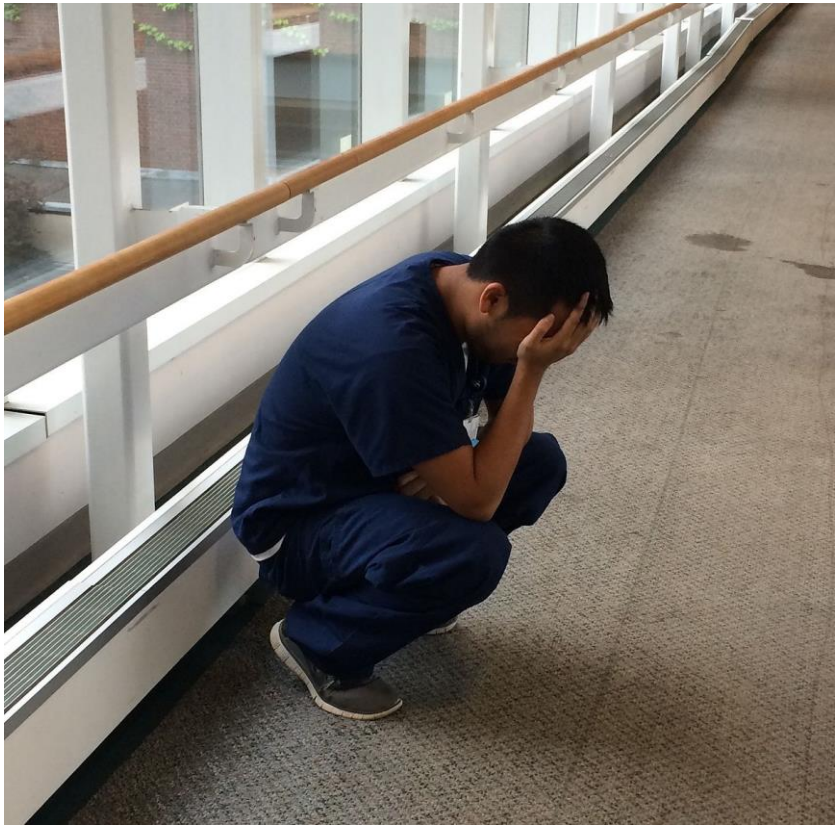
Public Services Health & Safety Association™
Your Health. Your Safety. Our Commitment.

Impact on Staff

- The effects of aggression on healthcare staff can be considerable and include
  - Physical injuries
  - Psychological trauma (ONA, 2012)
  - Increased sick leave (O'Connell at al., 2000)
  - Development of post-traumatic stress and substance abuse disorders (Liss & McCaskell, 1994)



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Impact on Patients

- Under-managed behavioural symptoms contribute to poorer patient outcomes
- Patients with aggression may have deferred clinical care and/or be treated with excessive chemical or physical restraints (Foster et al., 2007; Nakahira et al., 2008)

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Organizational Supports for Workplace Violence

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Screening and Flagging

- On May 15, 2017 the Ministry of Labour released “The Workplace Violence Prevention in Healthcare Leadership Table Report”
  - Recommendations included for all Ontario hospitals to use Public Service Health and Safety Association (PSHSA) Violence, Aggression and Responsive Behaviour (VARB) tools
  - Effective violence prevention involves three components — risk assessment, flagging & care planning
  - Our program is similar to 2 PSHSA (2017) toolkits:
    - Individual Client Risk Assessment
    - Communicating the Risk of Violence A Flagging Program Handbook for Maximizing Preventative Care

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Interventions for Managing Patient Aggressive Behaviour

- Most literature focuses on quantifying the problem, not on interventions (Phillips, 2016)
- Intervention literature is limited, often no empirical outcomes or flawed methodology (Phillips, 2016)
- Effective interventions to address patient aggressive behaviour are:
  - Worker education and training (Tolli et al., 2017)
  - Flagging of high-risk patients (Drummond et al., 1989; Kling et al., 2011)

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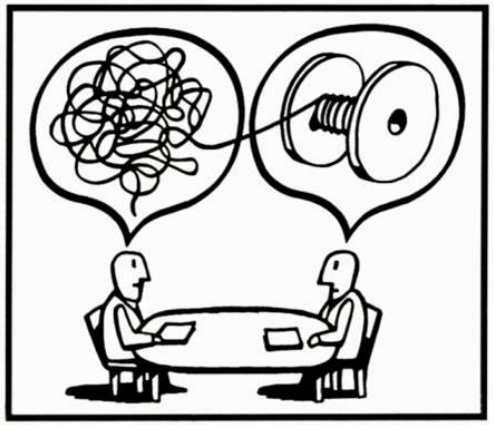
Training

- Systematic review of 17 studies of training interventions on enhancing the competence of nursing staff to manage challenging patient behaviour (Tolli et al., 2017)
  - Increased staff confidence (5 studies), but no effect on attitudes or knowledge
  - 3 of 4 studies observed a decrease in violent incident rates post-intervention



- Post-training follow-up is required through coaching the ideal application of skills (Wang et al., 2008)
- Training is seen as part of a larger prevention program rather than a standalone strategy (Wang et al., 2008)

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Flagging

- Kling et al. (2011) implemented a flagging system in an acute care hospital in British Columbia along with violence prevention training
  - The hospital violence (number of incidents/100,000 work hours) did not change from pre- to post-implementation, although it did decrease briefly during the implementation phase
  - The flagging system correctly identified patients who displayed aggressive behaviour later during their hospital stay

- Drummond et al. (1989) implemented a flagging system at a Veterans Health Administration hospital.
  - In the 12 months after the flags were implemented, the flagged patients displayed 90% fewer incidents of violence compared to the year prior to implementation

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How are other organizations implementing flagging systems?

- Screening tool used
- Who does screening?
  - Nurse versus inter-professional team
- When does screening occur?
  - Triage in ED, unit admission
- Reassessment
  - Frequency, triggers
- Types of visual alerts
  - Wristband, signage, electronic health record, unit whiteboard
- Manager-mediated permanent flag
- Types of visits that flagging occurs in
  - Inpatient, outpatient, across visits

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London

This London woman has been flagged as 'potentially violent', but she disagrees

Stephanie McCabe is one of almost 100 people who have launched appeals against LHSC's purple armband policy

Kate Dubinski · CBC News · Posted: Jan 28, 2019 5:00 AM ET | Last Updated: January 28

Values/Tensions

- Safety for all (patients, staff, families, visitors)
- Prevention, proactive, protection
- Risk management
- Values: Humanity, Inclusivity, Discovery, Service
- Privacy/confidentiality
- Stigma, labelling
- Patient- and family-centred care

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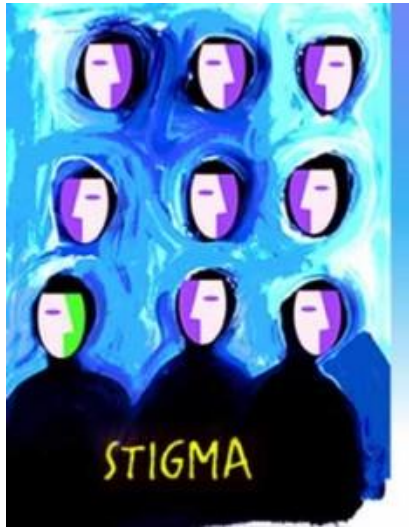
Stigma

From PSHSA Communicating the Risk of Violence A Flagging Program Handbook for Maximizing Preventative Care:

> "Flagging activities are not intended to stigmatize at-risk patients, and will be conducted in a manner that respects ethical principles and aligns with the organization's duty to care"



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Our Research Study

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The Behavioral Universal Precautions Program

Within the Behavioral Universal Precautions program, the information about a patient's risk of aggression is communicated

1. without discrimination,
2. in order to plan care to ensure aggression is de-escalated, and
3. to assure the safety of healthcare personnel, patients, families and visitors

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Research Design

Experimental Units

- 1 medical, 2 surgical units
- Staff received face-to-face didactic training
- Ongoing audit and feedback of use of the program

Control Units

- 1 medical, 2 surgical
- Existing protocols remained in place

*Program was also implemented on two units (medical and psychiatric) that were not involved in the research study during the same timeframe

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Staff Involved

Unit-Based

- Nurses
- Ward clerks
- Service assistants
- Social workers*

Not Involved in Research Study, Did Receive Information on UP

- Physicians, surgeons, residents
- Security
- Volunteers
- Linen delivery
- Central Dispatch
- Engineering
- Chaplaincy

Floating (work across multiple units)

- Service assistants
- Porters
- Food delivery
- Diagnostic imaging
- ECG/echo technicians
- Physiotherapists
- Occupational therapists
- PTA/OTA
- Social workers (some are unit-based)
- Dietitians, dietary technicians
- Pharmacy, pharmacy technicians
- Respiratory therapists

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Results

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Outcome Measures

Outcome	Measure
1. Implementation - Quantitative: Adoption	Process measures: -Spot checks of adherence to UP protocol -Knowledge questionnaire for staff
2. Staff Outcomes: Staff knowledge, attitudes, confidence and safety experience (experimental, control and floating groups)	Outcome measures: -Questionnaires for staff at pre-implementation, 3 months and 6 months later
3. Implementation - Qualitative: Facilitators and barriers to use of the program	Qualitative data: -Focus groups/interviews with staff

Outcome #1 – Implementation: Adoption

Criteria	Outcome
Number of staff trained	10S – 100% (n=30) 11S – 87% (n=39) 14S – 100% (n=37) Floating – 48% (n=553)
Adherence to Protocols – Screening	10S – 75.3% (n=538) 11S – 70.9% (n=795) 14S – 79.5% (n=419) **Across units – 74.7% (n=1195)**
Adherence to Post-Positive Protocols – Visual Alerts	Across units n=55 (5% of patients are positive) 0 alerts – 25.5% 1 alert – 21.6% 2 alerts – 21.6% 3 alerts – 13.7% 4 alerts – 9.8% 5 alerts – 7.8% **1 or more alerts – 74.5%**
Staff knowledge scores post-training	Baseline – 37% 3 month follow up – 40% 6 month follow up – 41%

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Outcome #2: Staff Knowledge, Attitudes, Confidence & Safety Experience

- Staff in the experimental, control and floating groups completed questionnaires pre-implementation and over the 6-month follow up period
- Results reviewed for whether there is a change over the course of the implementation and at 6-months post-implementation compared to the matched control units?
  - Expected to see positive shift in experimental and floating groups over time and in comparison to control group
  - Expected control group to not change over time

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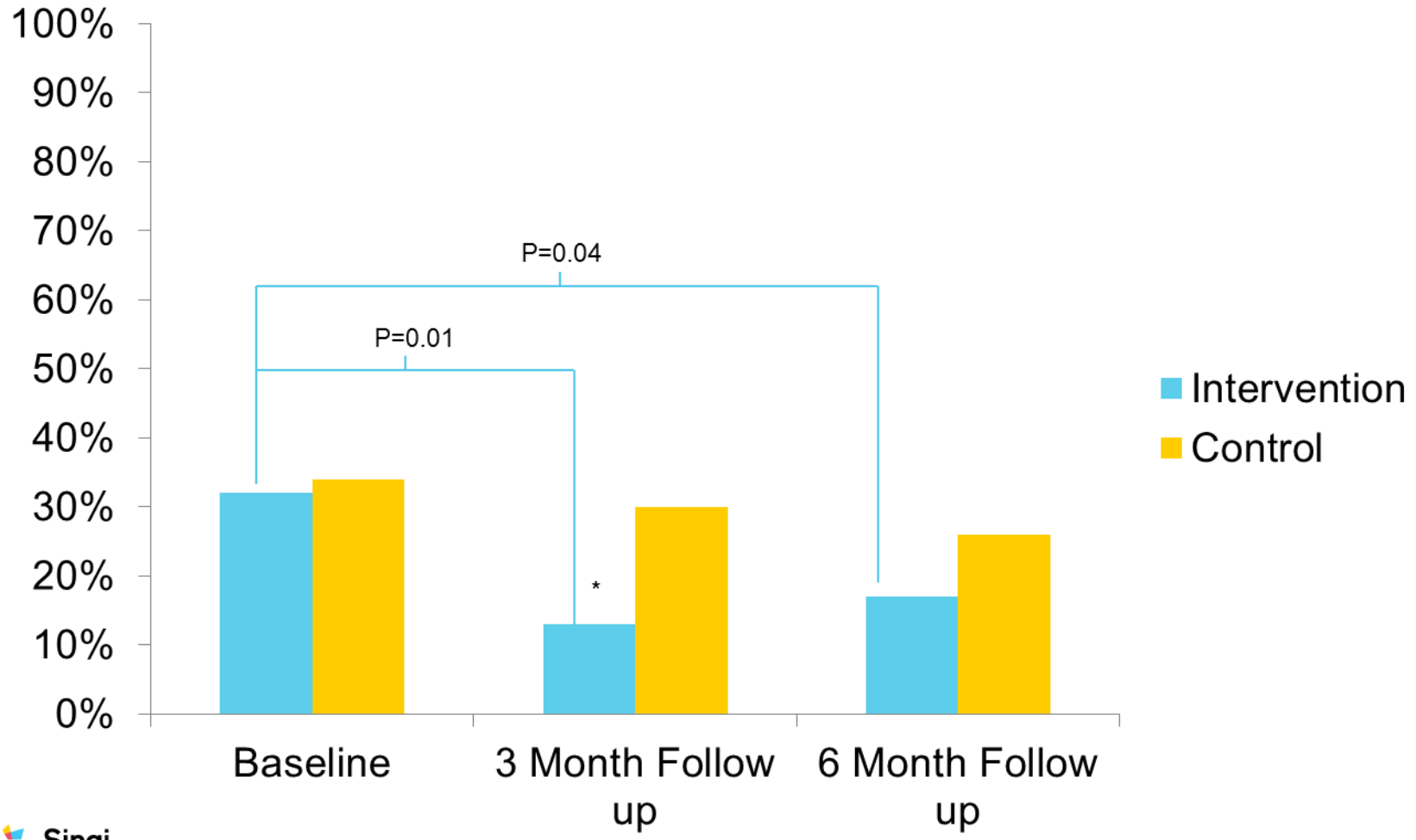
Outcome #2: Staff Knowledge, Attitudes, Confidence & Safety Experience

Criteria	Description	Findings
Knowledge	-Investigator-developed questionnaire	-No differences between groups or over time
Attitudes	Attitudes Toward Aggressive Behaviour Questionnaire (Collins, 1994) -8 individual item Likert scale	-Only 1 item of 8 on tool showed a difference, this item was actually about confidence -Both experimental and floating group improved over time on this item (and control did not change)
Confidence	-Confidence in Coping with Patient Aggression Instrument (McGowan et al., 1999) -10 item Likert scale, summed score	-Confidence tool scores increased over time in all 3 groups
Experience	-Canadian Nurses Survey of Three Occupational Groups tool (O'Brien-Pallas &Whitehead, 2005) -5 individual items	-In general, experimental group reported less aggression at follow ups and in comparison to control group -Floating group also had decrease for two items

Experience of Aggression #3: *In the last 10 shifts, have you experienced physical aggression from patients?*



*P=0.009

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Outcome #3: Implementation – Qualitative Results: Facilitators and Barriers

Facilitators	Barriers
-Task integrated into existing work routines	-Lack of knowledge of patient at time of screening/care plan development
-Reminders and training	-Resource limitations for implementing parts of care plan
-Visual alerts similar to other programs, colour choice effective	-Competing alerts/signage
-Perceived benefit	-Patient/family perception
-Simplicity of screening tool/Powerchart form	-Time and workflow
-Only screening had more facilitators reported than barriers	-Multiple steps in process
	-Care plan too generic, too long

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Outcome #3: Facilitators and Barriers

- Key modifications proposed:
  - Increase collaboration with other hospital units
  - Automated alert system (previous visits, printing of care plans)
  - Opportunities for reassessment
  - Add alert to unit whiteboard
  - Push notifications of positive patients to staff (email?)
  - Developing care plans as role of CNS
  - More training on implementing care plan
  - Medical team and family input into care plan

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Recent publication from Humber River Regional Hospital (Burkoski et al., 2019)

- Standardized symbols display on patient's medical record and on digital signage next to patient's door
- Qualitative study looking at nurses' experiences using the system
  - Nurses appreciated being forewarned, this generated feelings of safety
  - Nurses used the flags to take proactive preventive measures
  - Communication and tactical strategies were used
  - Despite flags and strategies, there was a sense that not all violence can be prevented

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Considerations for Sustainability and Spread of Aggressive Behaviour Alert Program

- Continued Ministry of Labour requirements for safety and media attention on this workplace issue
- Research results show benefit for staff in terms of confidence and experience of aggression
- Screening has best uptake; post-positive screening intervention workflow needs to be optimized
- Patients and families do not seem to be negatively affected by the alerts- no complaints
- Qualitative results provide insight into facilitators and barriers that need consideration prior to any spread

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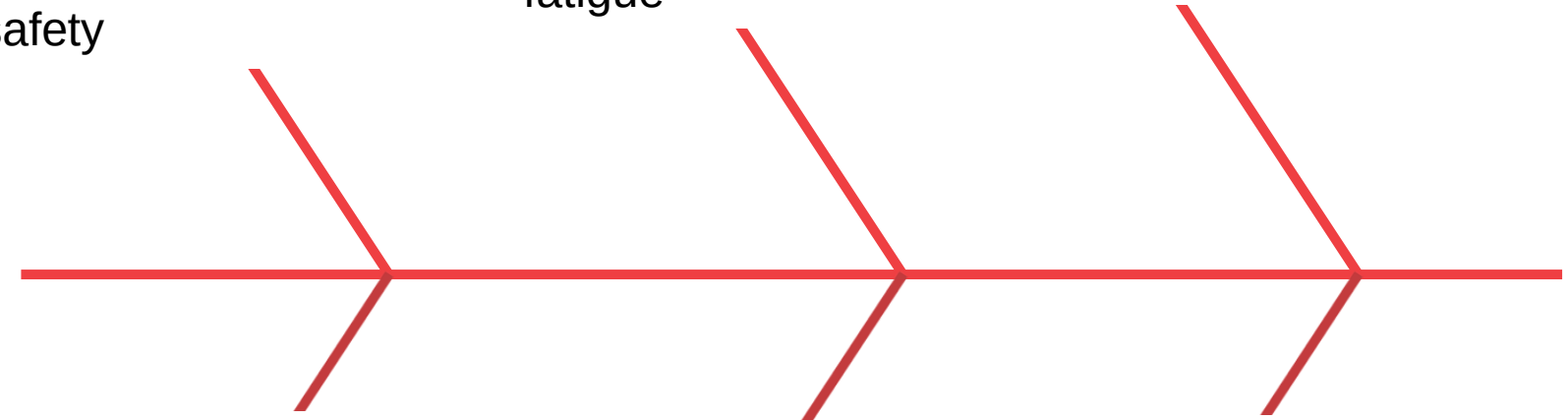
Fishbone Diagram- Considerations for Scale and Spread



People
- Training needs
- Turnover of staff
- Culture prioritizes patient care over safety

Materials
- Alert/signage fatigue

Machines
- Flagging limitations in electronic health record
- Sharing info with other electronic health records

Policies/External Drivers
- Occ Health/Safety Compliance
- Media Attention
- Health Equity

Physical Environment
- Crowding
- Noise

Workflow
- Ease of screening completion
- Reminders about screening and alerts
- Competing screening tools done at admission

Case

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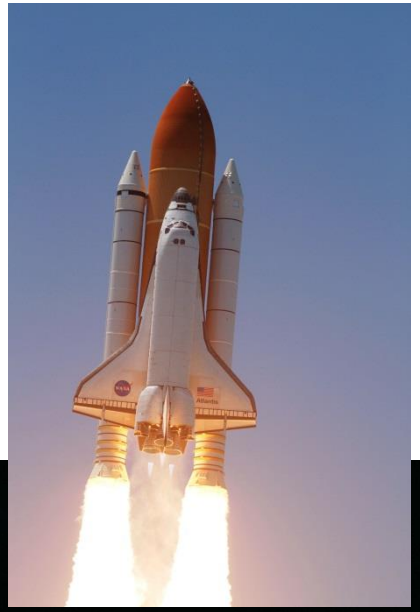
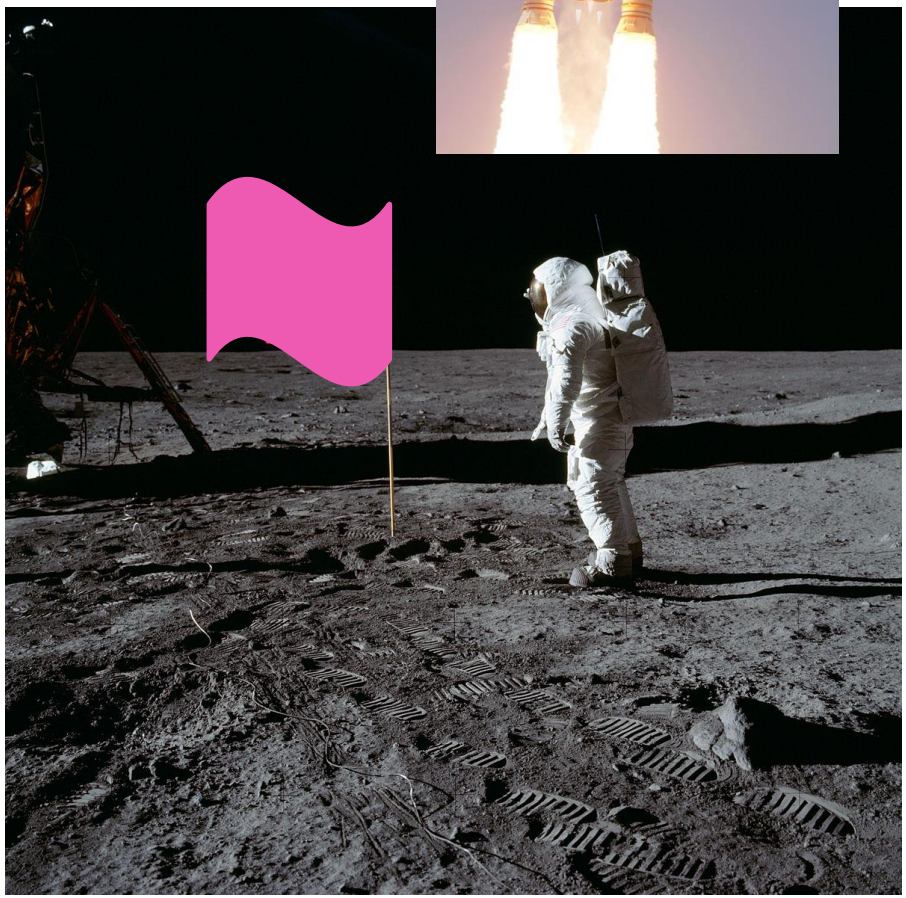
Conclusions

- To our knowledge, this is the only randomized, controlled trial evaluating the implementation of a violence flagging system in a hospital
- Staff on the experimental units reported experiencing less aggression than control units
- Unlike other organizations, there were no voiced concerns from patients and families
- We have ideas for future improvements to this program





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