



THE ECOSYSTEM OF EVIDENCE

Lessons learned in the pandemic era and future challenges

10th International Conference for EBHC Teachers and Developers
10th Conference of the International Society for EBHC
Taormina, 25th - 28th October 2023

#EBHC2023



Applying the behaviour change wheel to patient safety events to enhance evidence-based practice in a pediatric tertiary care centre

Mari Somerville, PhD, MPH,
RD

IWK Health &



Background

- 10-18% of patients experience an adverse event during their hospital stay (de Vries et al., 2008; WHO, 2021)
- Incident reporting systems identify, monitor and respond to safety events
- Little change in patient safety in past 20 years (Pierre et al., 2022)

Need to understand how patient safety interventions are implemented & whether they target underlying behaviour



Aims

- 1) To categorize moderate-level patient safety events & recommendations using a behaviour change framework
- 2) Examine whether the types of recommendations are implemented with an evidence-based behaviour change strategy



Methods

Setting & Population:

- Women & children's hospital, serving patients from 3 Canadian provinces
- 58 moderate-level safety events reported between 2020 and 2022
- Across all departments & populations



Methods

Incident Reporting System

“Pt has remote **Hx of childhood rash to penicillin. Ampicillin was ordered & given during delivery for a maternal fever. Pt did not get a rash or any other side effect.** Vitals signs stable and pt was in birth unit for 4 hours post administration”

Description of Event

"When units are extremely busy or patients' statuses are rapidly changing, **human errors** happen"

Recommendation(s)

"Imperative that **error prevention techniques** be used at busy, overwhelming times. All staff require **Error Prevention Training** to minimize instances of human error (training offered monthly)"

Safety Event Occurs

Team Review



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GIMBE
EVIDENCE FOR HEALTH

Methods

COM-B:

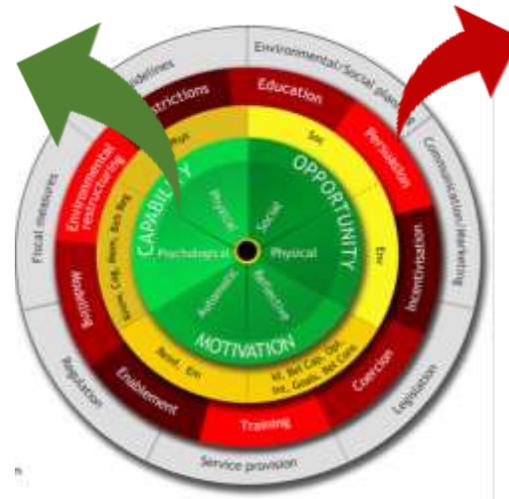
Source of behaviour



TDF: Specific factors influencing behaviour



Description of event



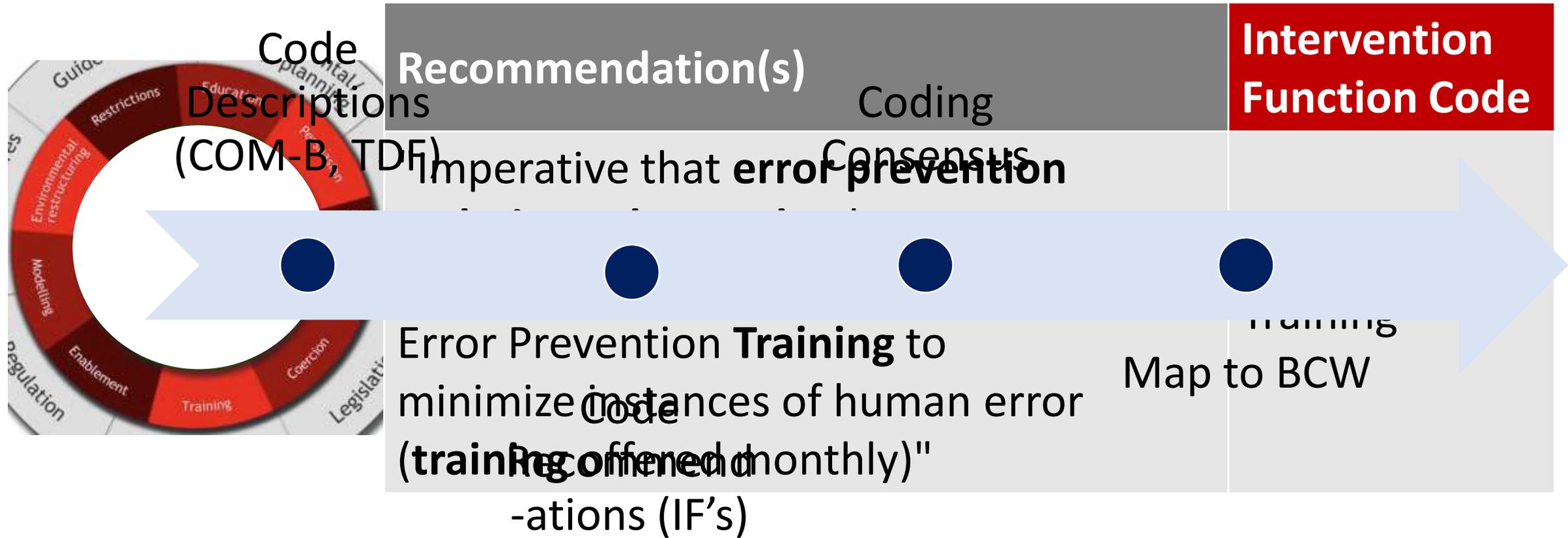
Intervention Functions:
Types of interventions



Recommendations

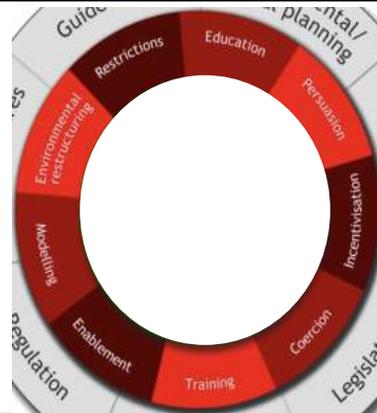
Methods

Data Analysis



Results

Safety Event Recommendations	
Intervention Function	Frequency (%)
Education	83 (45.0)
Enviro restructuring	48 (26.0)
N/A	16 (9.0)



Results

TDF Domain	Intervention Functions			
	Education	Persuasion	Enviro Restructuring	No Code
Cognitive Interpersonal skills	15	1	5	2
Knowledge	15		2	1
Memory, attention, decisions	18	3	10	4

Limits

- Self-reported data, multiple reporters
- Some data could not be coded
 - Inconsistent approach to describing safety events/recommendations
 - Not using behavioural terms



Conclusions

Majority of safety events **were not** addressed with implementation strategies that could bring about change, according to an evidence-based behaviour change tool.



- Need consistent reporting approach across hospital
- Need behaviour change taxonomy to identify & address underlying behavioural issue(s)

