Project Title

To reduce Assault Rate by 50% in a Long Stay Psychiatric Ward (Ward 73AB) in IMH within 6 months time

Project Lead and Members

- D. Kalaivanan
- Tay Kim Huat
- Mohammed Hendra
- Zhou Zhenyu
- Li Ruifeng
- Hafiz Bin Mahmood
- Ho Soo Fung

Organisation(s) Involved

Institute Mental of Health

Healthcare Family Group Involved in this Project

Allied Health, Nursing

Applicable Specialty or Discipline

Psychiatry

Project Period

Start date: Jun 2020

Completed date: Oct 2021

Aims

To reduce Assault Rate* by 50% in a Long Stay Psychiatric Ward (Ward 73AB) in IMH within 6 months time.

*Assault Rate

Refers to injuries caused from physical violence directed to another

Patient => Patient and Patient => Staff

Assault rate is calculated based on: number of assaults / number of patient days ×1000

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Conclusion

See poster appended/ below

Additional Information

Accorded the NHG Quality Day 2022 (Category B: Service Redesign & Delivery) Merit Award

Project Category

Care & Process Redesign

Value Based Care, Safe Care, Productivity, Cost Saving

Keywords

Psychology, Mental Illness, Mental Health, Conflicts, Assaults, Patient Safety

Name and Email of Project Contact Person(s)

Name: Mr Kalaivanan s/o Dakshnamoorthy

Email: kalaivanan_d@imh.com.sg

INSTITUTE of MENTAL HEALTH
National Healthcare Group

To reduce Assault Rate by 50% in a Long Stay Psychiatric Ward (Ward 73AB) in IMH within 6 months time.

D. Kalaivanan, Dept of Nursing Administration

National Healthcare Group
Adding years of healthy life

Mission Statement

To reduce Assault Rate* by 50% in a Long Stay Psychiatric Ward (Ward 73AB) in IMH within 6 months time.

*Assault Rate

Refers to injuries caused from physical violence directed to another

Patient => Patient and Patient => Staff

Assault rate is calculated based on: number of assaults / number of patient days × 1000

Team Members

Name	Designation	Department
D. Kalaivanan	Assistant, Director of Nursing	Nursing
Tay Kim Huat	Senior Nurse Manager	Nursing
Mohammed Hendra	Nurse Clinician	Nursing
Zhou Zhenyu	Senior Nurse Clinician / APN	Nursing
Li Ruifeng	Senior Staff Nurse	Nursing
Hafiz Bin Mahmood	Senior Healthcare Assistant	Nursing
Ho Soo Fung	Principal Occupational Therapist	OT Dept

Sponsors => Dr Christopher Cheok & Ms Anita Ng

Evidence for a Problem Worth Solving

Assaults can be very traumatizing and may result in:

- Victims requiring medical attention in RHs (stitching, urgent X-rays, etc.)
- Non value adding – staff need to accompany patient, require for outsourced ambulance, police report
- Family needs updating; legal issues
- Fear in staff – need counselling
- Staff on Incident MC; Burnout
- Increase in staffs' request for transfers
- Decreased work satisfaction and lower quality care output

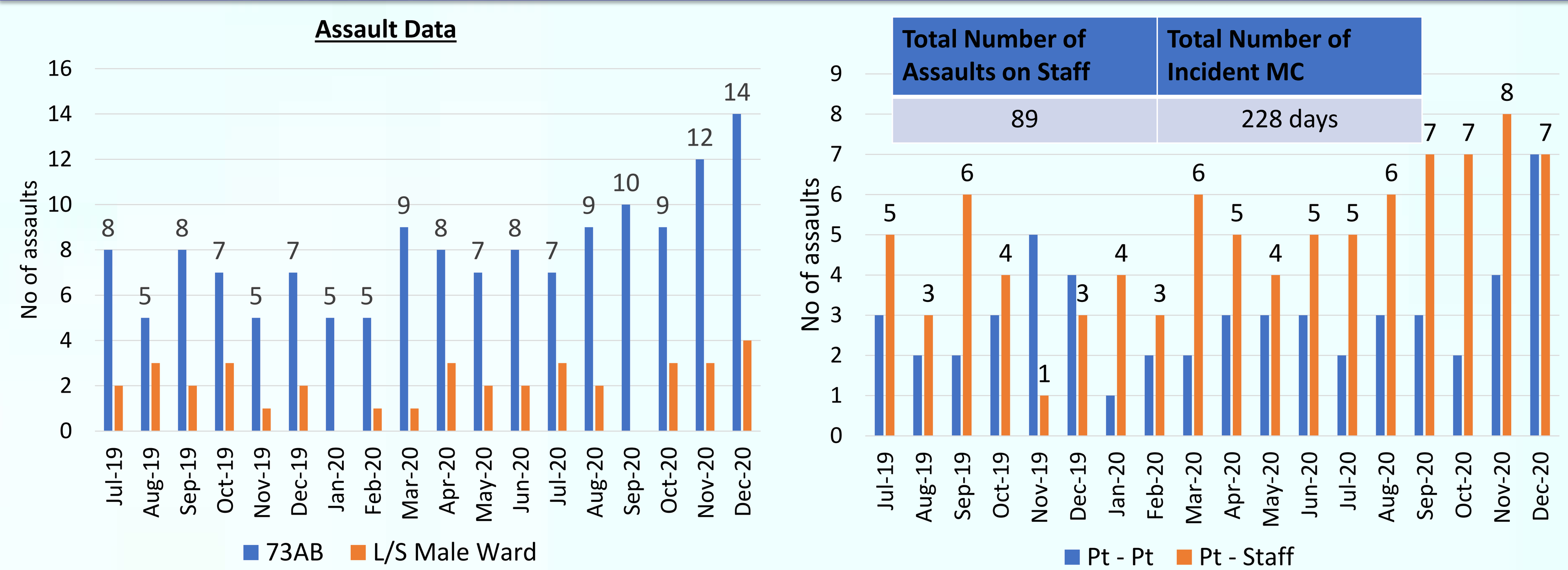
Patient

- Total (10 pts; 3 FGs)
- All had been physically assaulted by fellow pts.
- 2 pts admitted provoking aggressor.
- All wanted aggressors to be charged / removed from ward.
- 90% agreed that assaulting others is unacceptable and organization should not condone such events.
- 7 pts felt that staff could have done more to prevent assaults.
- 3 pts admitted that they would take revenge.
- All felt that assault incidents are preventable.

Staff

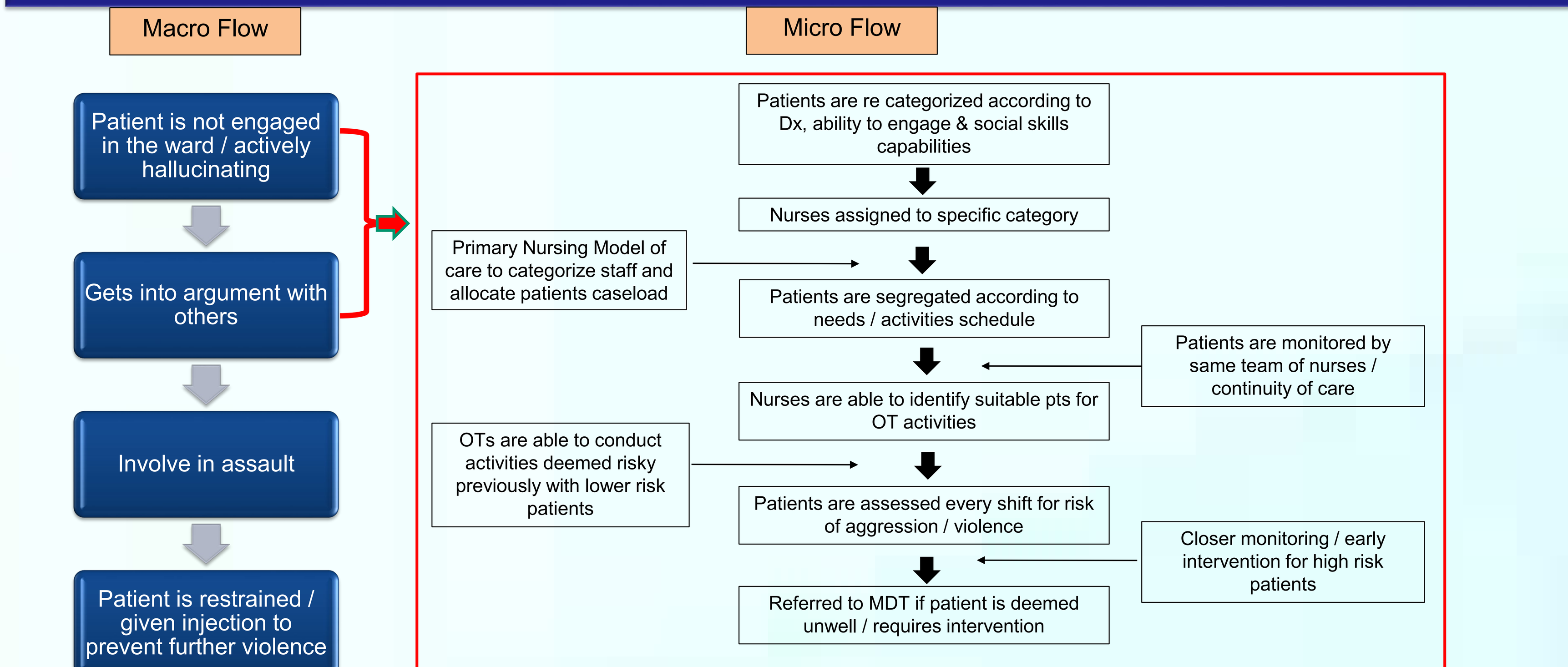
- Total (20 nurses; 4 FGs).
- All had been either physically assaulted / verbally abused by pts).
- 90% agreed that assault incidents strains pt- nurse relationship.
- Fear (85%), unwillingness to engage same pt (50%), anger towards organization (50%).
- Request for transfer (n – 5), intention to leave (n - 3).
- All agreed we should have more measures / strategies to reduce assault.
- 90% commented that not possible to totally prevent, but can reduce current rate.

Current Performance of a Process

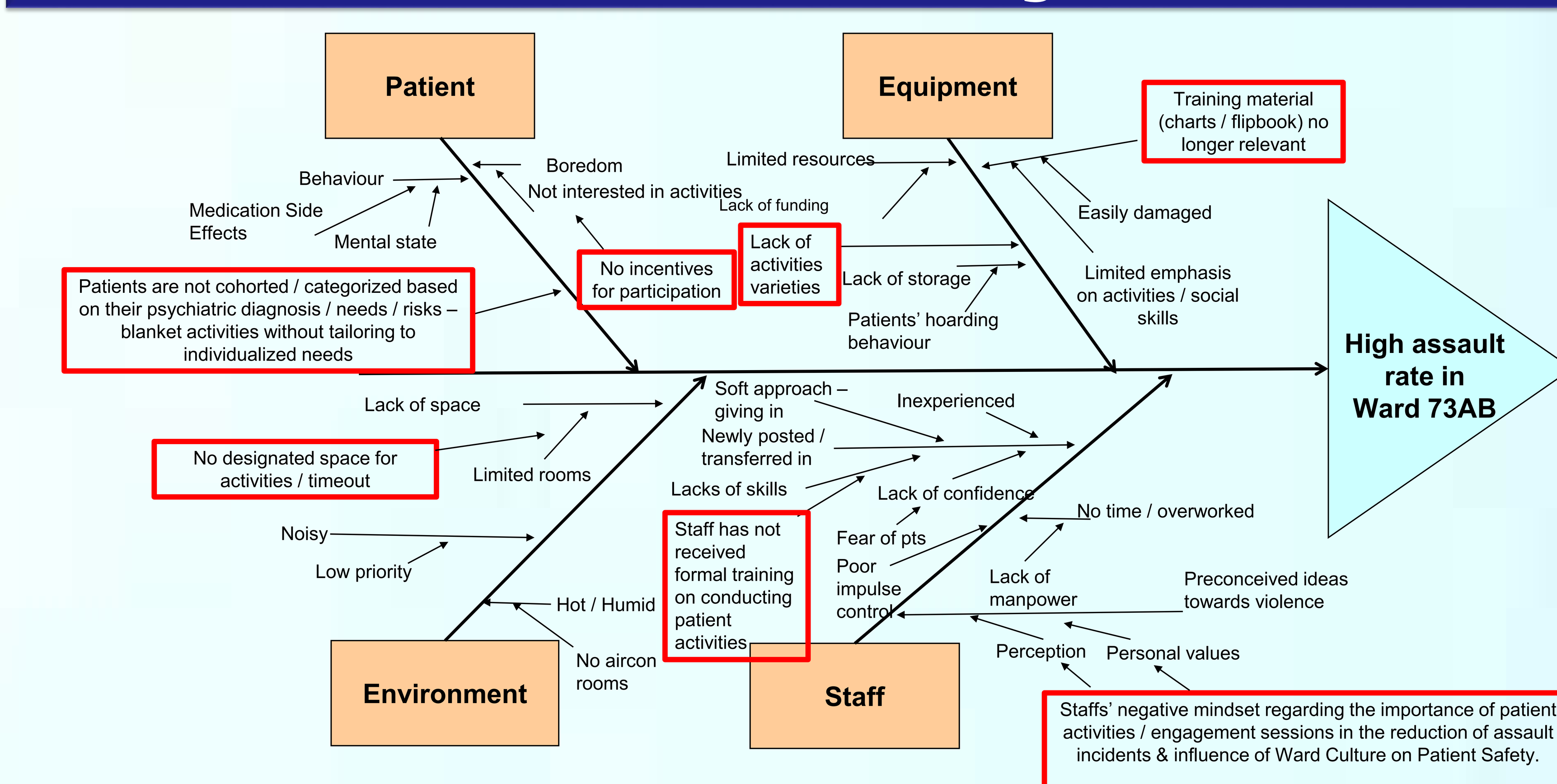


Total Number of Assaults on Staff	Total Number of Incident MC
89	228 days

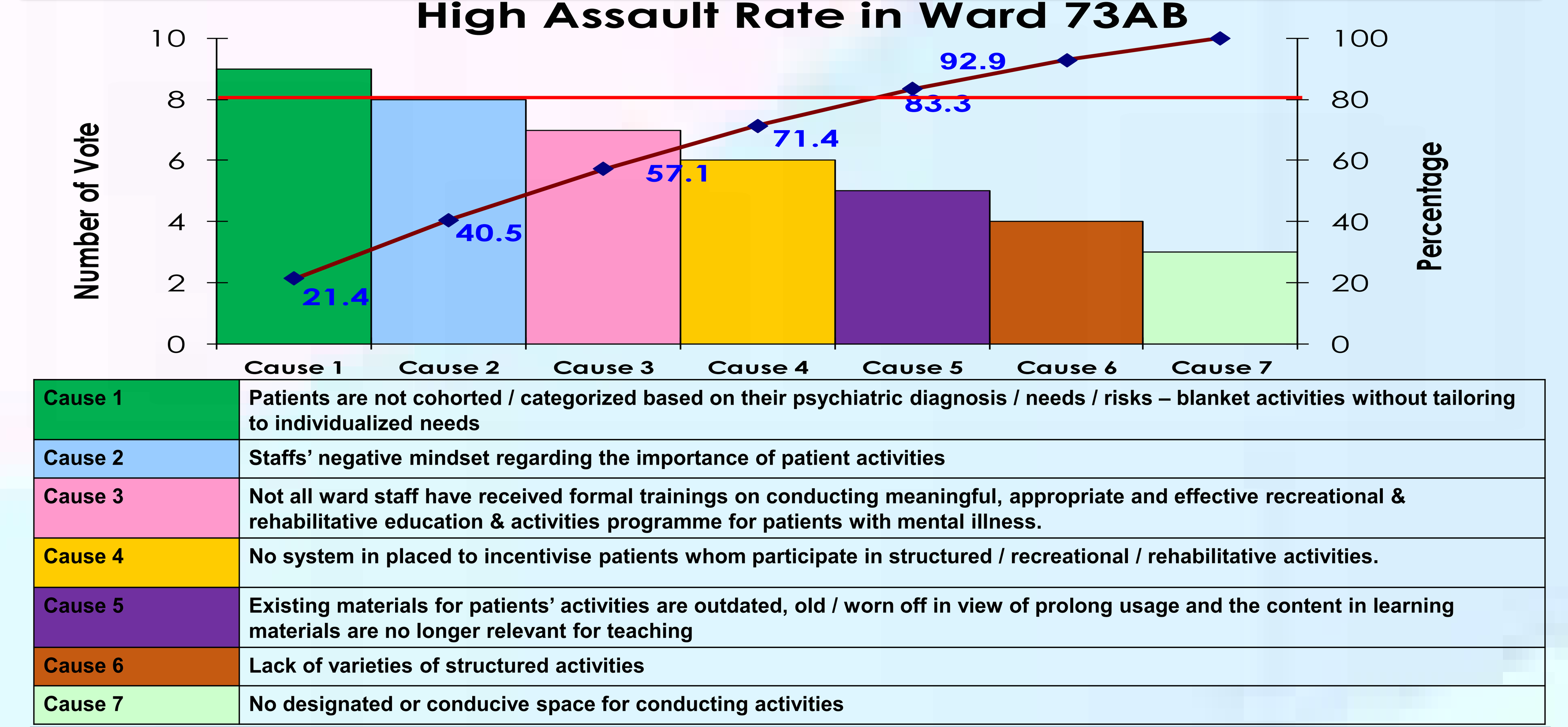
Flow Chart of Process



Cause and Effect Diagram



Pareto Chart

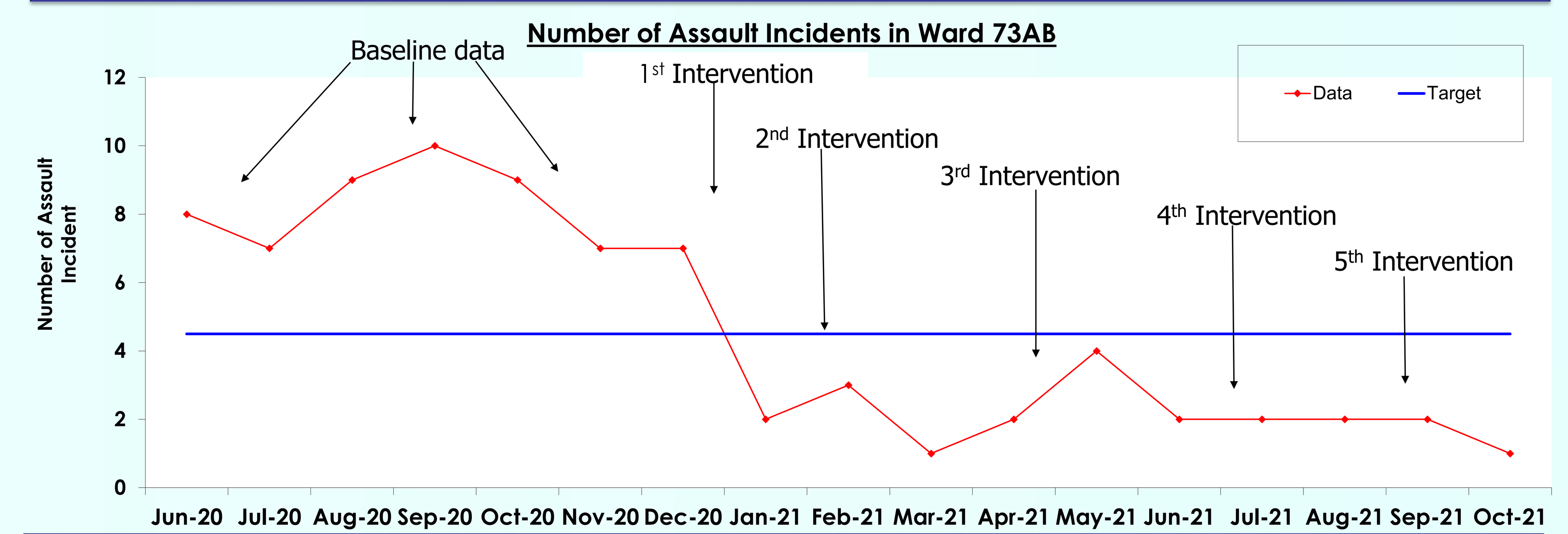


Cause	Description
Cause 1	Patients are not cohorted / categorized based on their psychiatric diagnosis / needs / risks – blanket activities without tailoring to individualized needs
Cause 2	Staffs' negative mindset regarding the importance of patient activities
Cause 3	Not all ward staff have received formal trainings on conducting meaningful, appropriate and effective recreational & rehabilitative education & activities programme for patients with mental illness.
Cause 4	No system in placed to incentivise patients whom participate in structured / recreational / rehabilitative activities.
Cause 5	Existing materials for patients' activities are outdated, old / worn off in view of prolong usage and the content in learning materials are no longer relevant for teaching
Cause 6	Lack of varieties of structured activities
Cause 7	No designated or conducive space for conducting activities

Implementation

Root Cause	Interventions	PDSAs	Date
Patients are not cohorted / categorized based on their psychiatric diagnosis / needs / risks – blanket activities without tailoring to individualized needs	To have a Patient Categorization Exercise (PCE) in Ward 73AB based on the following criteria:- ▪ Psy Diagnosis ▪ Risk of aggression (factoring number of assaults over last 6 months) ▪ Rehabilitative potential ▪ Level of motivation	PDSA 1a: To conduct briefing & training sessions to all staff & MDT members of Ward 73AB regarding the categorization exercise & tool.	30 Nov-10 Dec 2020
		PDSA 1b: Incorporated aggression / violence prediction tool, rehabilitative potential scale & in – patient motivation scale into PCE. Training with competency assessment conducted for all staff.	21-30 Dec 2020
Staffs' negative mindset regarding the importance of patient activities / engagement sessions in the reduction of assault incidents & influence of Ward Culture on Patient Safety.	Identify, coach & train culture change and safety ambassadors in the ward.	PDSA 2a: To engage with Ward Sup and identify positive Change Agents – communicate expectations and clarify roles.	4-28 Jan 2021
		PDSA 2b: Involved lower grade staff (HCAs / HAs) as Change Agents – using the concept of "Everyone's Voice Is Important".	2-18 Feb 2021
Not all Ward Staff have received formal trainings on conducting meaningful, appropriate and effective recreational & rehabilitative education & activities programme for patients with mental illness.	To conduct a Patient Engagement Training programme (PET) for all Ward Staff in 73AB.	PDSA 3a: To collaborate with OT department & Nursing's Activity Nurse Committee to formulate Patient Engagement Training programme.	16 Mar-31 Apr 2021
		PDSA 3b: Conducted focus group with staff to address concerns of PET programme and how to make it more useful.	7-28 May 2021
Currently there is no system in placed to incentivise patients whom participate in structured / recreational / rehabilitative activities.	To introduce a Token Economy* initiative in Ward 73AB to improve patients' participation in activities.	PDSA 4a: Worked with Ward Sup to identify 2 Token Economy Ambassadors (TEAs) for each ward. Expectations and roles established	6-28 Jun 2021
		PDSA 4b: Incorporated "Behavioural Chart" into Token Economy – using "assault free" points rewarding system to augment existing process.	7-27 Jul 2021
Existing materials for patients' activities are outdated, old / worn off in view of prolong usage and the content in learning materials are no longer relevant for teaching.	To revise the current teaching materials in order to meet patients' learning needs & to introduce newer equipment (stationeries, arts & crafts supplies, games set, etc.) for activities.	PDSA 5a: Collaborated with OT department to procure new patient activities materials / equipment. Revamped existing teaching materials in the ward.	2-20 Aug 2021
		PDSA 5b: Sought collaboration from external volunteers to augment existing staff in conducting patient activities virtually. Worked on Activity Schedule to help in assignment of activities.	23 Aug-13 Sep 2021

Results



Cost Savings

Cost Savings – Assault on Patient

Area of Focus	Pre CPIP	During CPIP
Assault on Pt	24 incidents	10 incidents
Referred to RH	9 patients	2 patients

Pt – Pt Assault (Pt - Pt (Pre CPIP) 2020; Pt - Pt (CPIP) 2021)

Item	Cost	Episode	Total	Remarks
2 way ambulance to RH	$100	X 9	$900	
Investigations (X-rays / CT Scan, etc)	$100 - $300	X 9	$2300	(2 cases required CT Head)
Medications	$20 - $30	X 8	$200	
Interventions at RH (stitching, injections, etc)	$50	X 5	$250	
Escort by Ward Staff (4 – 7 hrs)	$100	X 9	$900	
Follow up visit (includes some of the above)	$500	X 5	$2500	
	TOTAL		$7050	

- *TOTAL SAVINGS => $5483 (only 2 pts sent out to RH compared to 9 prior CPIP)*
- *Per pt episode to RH => $800 (+ / -)*

Cost Savings – Assault on Staff

Area of Focus	Pre CPIP	During CPIP
Assault on Staff	45 incidents	11 incidents
Incident MC	94 days	13 days

Assault On Staff (Pt - Staff (Pre CPIP) 2020; Pt - Staff (CPIP) 2021)

Item	Pre CPIP RN	Pre CPIP EN	Pre CPIP HCA	Pre CPIP HA	During CPIP RN	During CPIP EN	During CPIP HCA	During CPIP HA
Total number of days on IMC	23	27	32	12	4	3	4	2
Per day wage	$219	$141	$107	$82	$219	$141	$107	$82
Sub Total	$5037	$3807	$3424	$984	$876	$423	$428	$164
TOTAL	$13252				$1891			

86%

$11,361

Institute of Mental Health RESTRICTED Institute of Mental Health

Problems Encountered

1. Importance of right siting patients & tailored plan of care.
2. Manpower will always be a "constraint" – but; productivity can still improve if we collaborate & co-create.
3. Culture of ward and leadership role is imperative.
4. Buy in from MDT; expect the unexpected & manage resistance.
5. Continuous reassurance, support to staff & mindset change is required.
6. Importance of systemic approach & helicopter view.
7. Quality initiatives during Covid-19 – very challenging & stretched (ward was having massive cluster outbreak during CPIP).

Strategies to Sustain

1. Continue to have regular feedback sessions with key stakeholders regarding initiatives & any area for improvement / modifications of strategies.
2. Sharing within department and hospital wide.
3. Importance of small wins, achieving milestones & staff engagement.
4. Sharing of project with newly transferred in staff to ward & the block.
5. Explore extension of scope with the volunteers – bandwidth to commit.
6. Regular sessions with Ward Supervisors to address their concerns – leadership sets the culture.
7. Involve 1 or 2 patient representatives into the workgroup – advocate to rest.