Exploring the prevalence and impact of behaviours of concern and whether a psychiatric behaviour of concern (Psy-BOC) team improves safety

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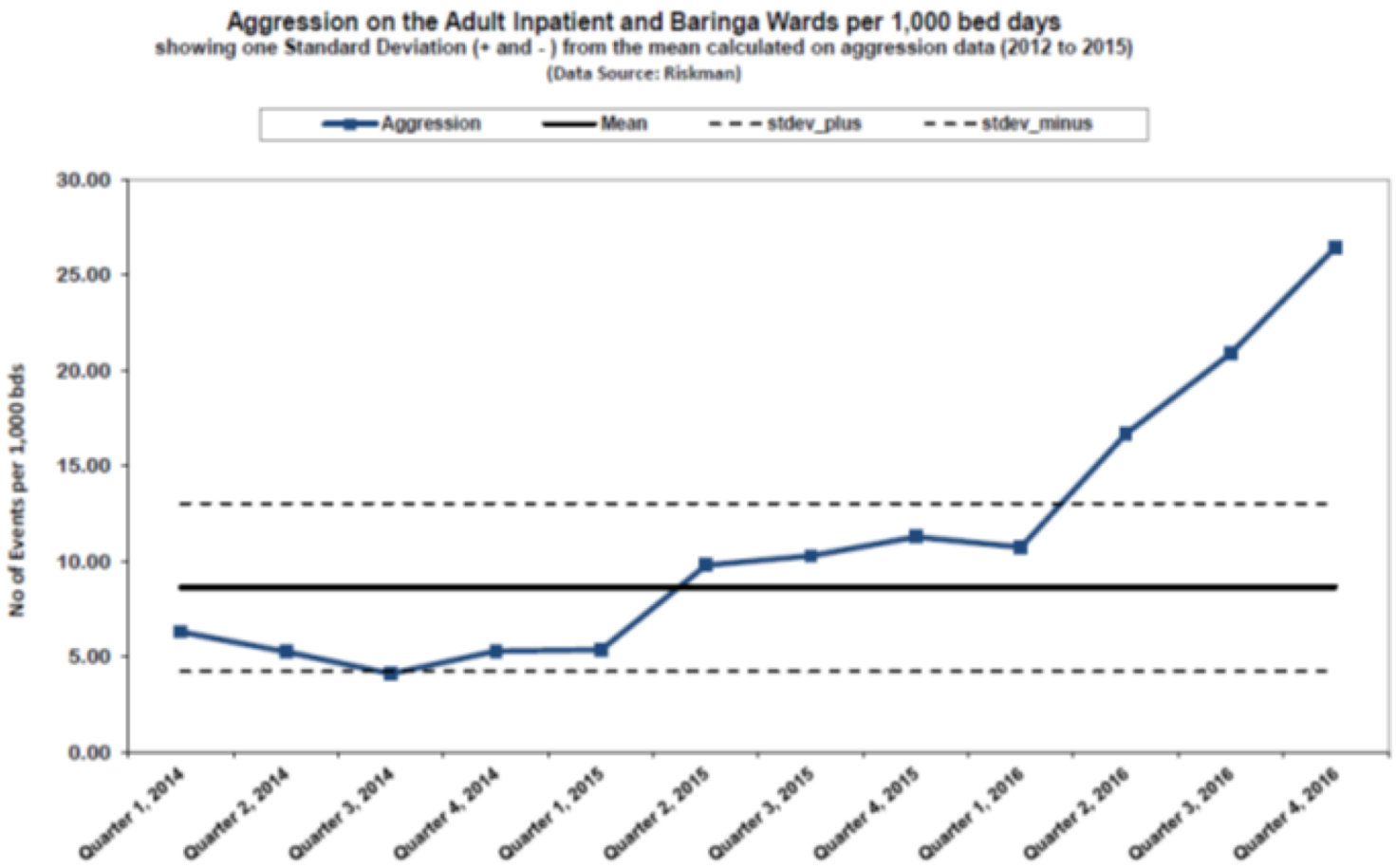
The Problem….

- **Lack of a system** to escalate deteriorating behaviours of concern.
- MET equivalent for physical health deterioration no formal **pathway for behavioural health deterioration**.
- Evidence of **missed early intervention** and prevention opportunity post incident analysis
- **Limited escalation to nurse manager** during business hours of BOC.
- Rising use of **seclusion** 6 consecutive months above state wide target.

Baseline Data

Month	Admits	Separations	LOS	Standbys	Sec per 1000 bed days (Red above state-wide target of 15 episodes per 1000 bed days)	Seclusion hours per 1000 bed days	% pts admitted with a seclusion episode
Feb 16	113	115	15	258	15	359	12
Mar 16	116	118	17	222	17	368	15
April 16	119	125	96	128	14	253	9
May 16	110	104	13	159	17	262	17
Jun 16	121	120	13	294	30	358	15
Jul 16	125	128	14	256	18	279	16
Aug 16	117	116	15	248	19	321	14
Sep 16	107	107	15	281	35	444	22
Oct 16	115	115	15	304	16	192	15
Nov16	120	119	13	380	19	305	11
Dec 16	116	115	13	399	14	229	13
Jan 17	97	96	19	321	12	131	13

Baseline Data



The Intervention – PSY-BOC call

- “Psychiatric equivalent”of a Metcall
- Early intervention and prevention of “Behaviours Of Concern”
- Team members - Roster multidisciplinary 24/7
- Initiating a PSY-BOC call – SMS to team
- There are 3 mandatory criteria for calling (transfers from ED in MR or plan for seclusion, any sexually inappropriate behaviour, direct police admissions)

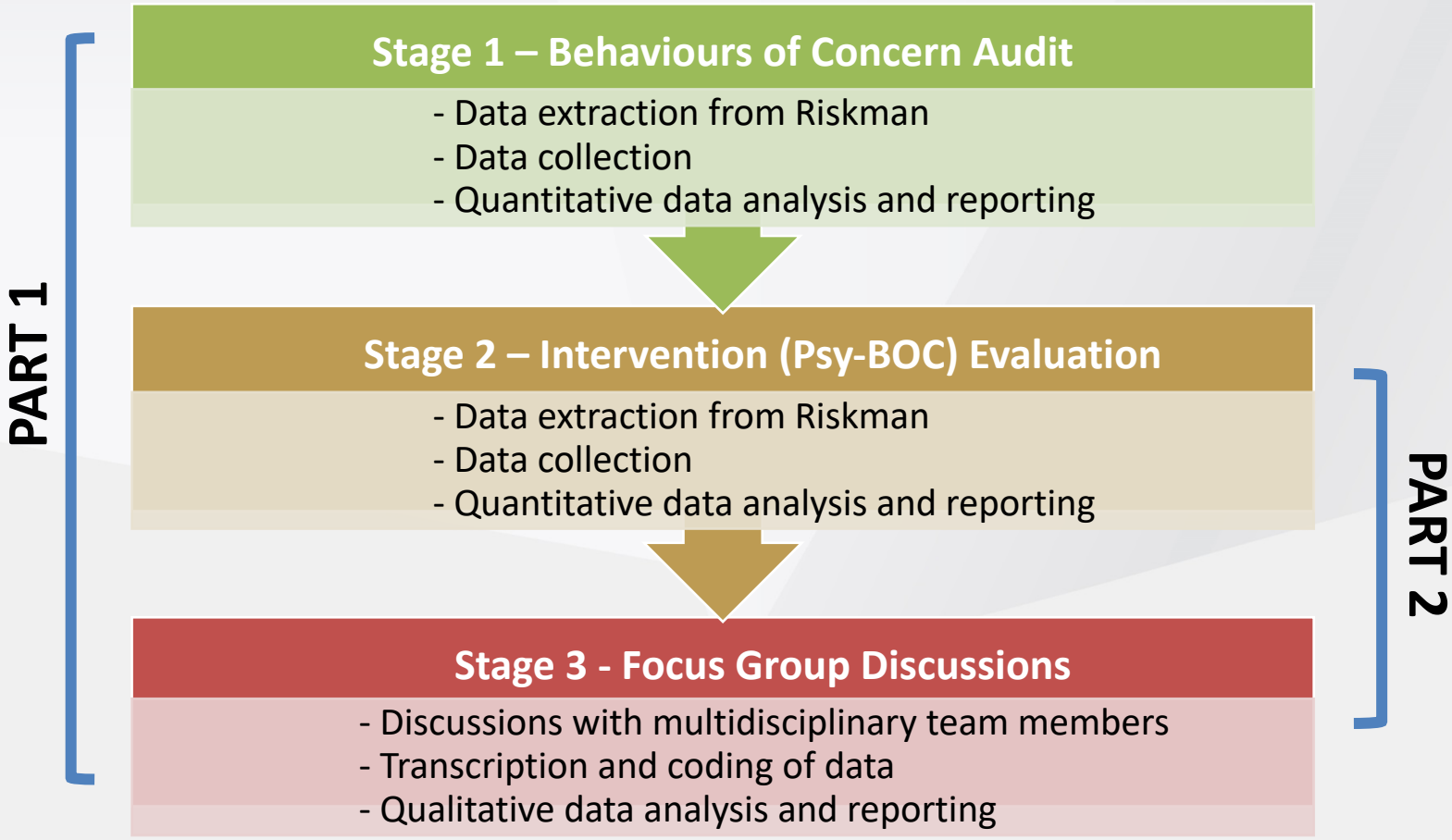
Aim of Research

- Conduct a retrospective audit to measure the nature, response and outcomes from inpatient psychiatry aggression, absconding, deliberate self-harm, sexual harm;

- Measure whether the occurrence of the four specified BOCs and the use of seclusion is reduced in the 6 months following Psy-BOC team commencement (February-July 2017) in comparison to the preceding 6 months (August 2016-January 2017); and

- Qualitatively measure staff knowledge, practice and attitude relating to BOCs, how this is currently responded to and how responding could be improved, and also measure how staff have experienced the operation and impact of the Psy-BOC team.

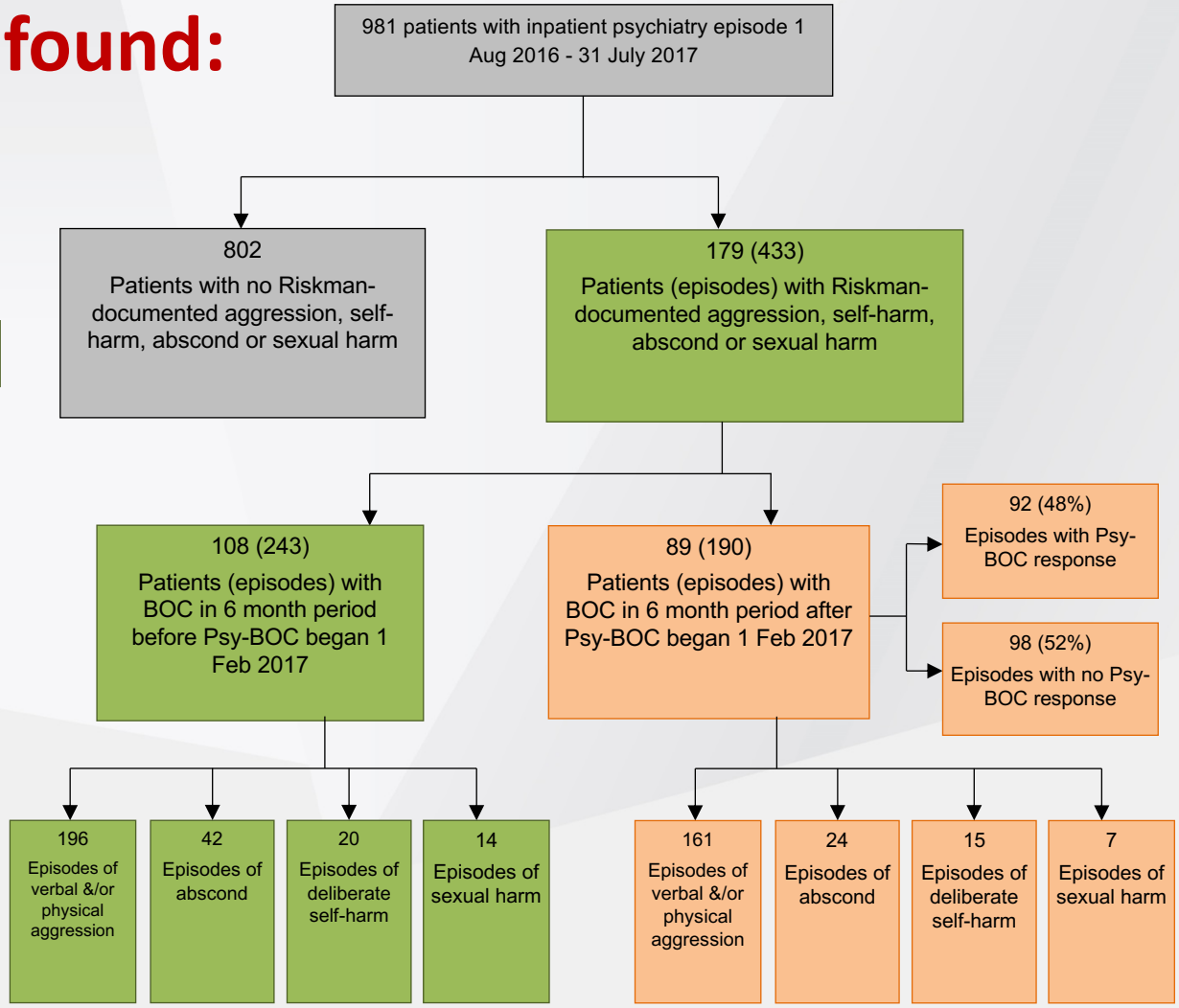
Project Methodology



What we found:

Part 1: BOC Audit

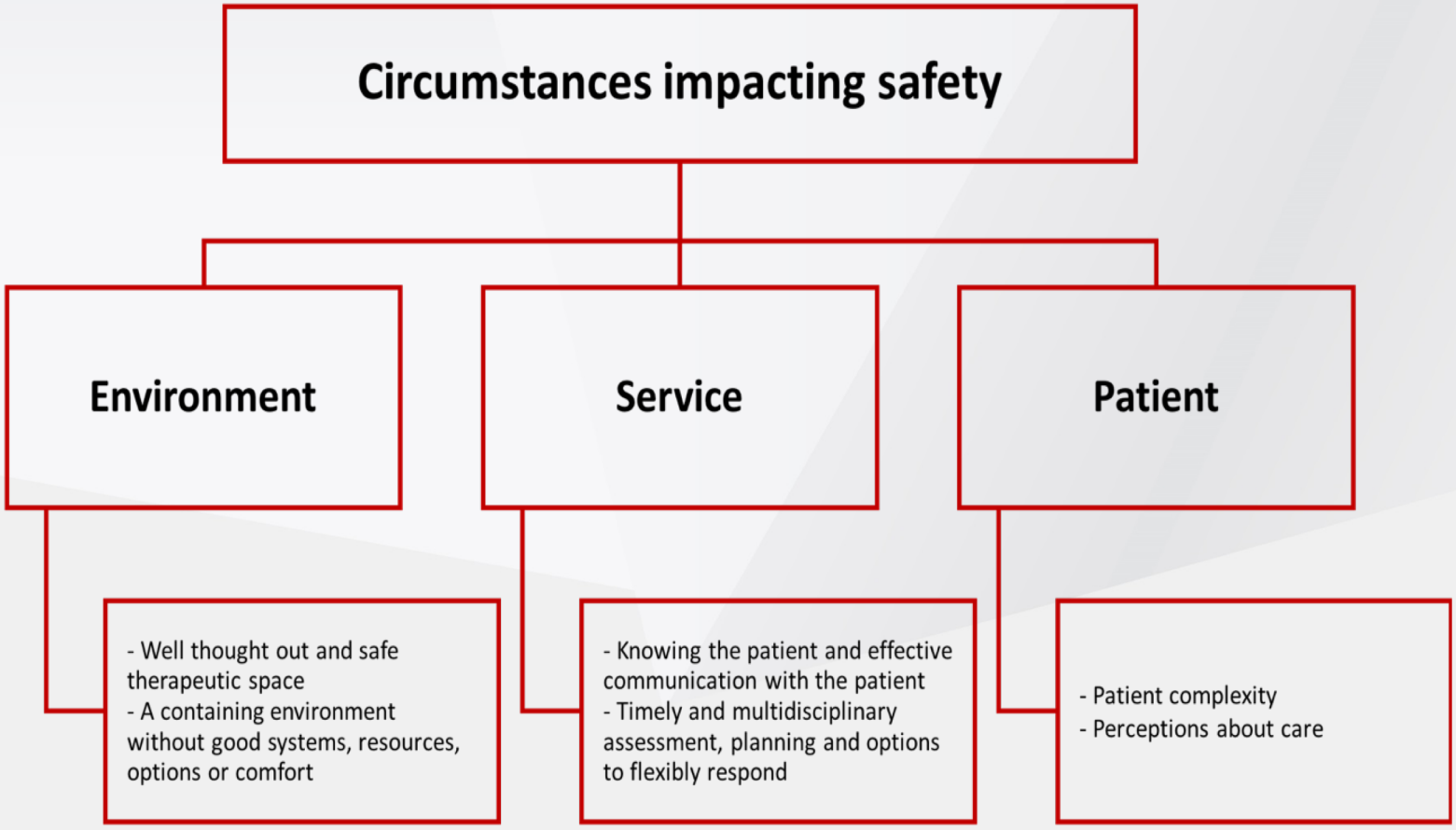
Part 2: Psy-BOC evaluation



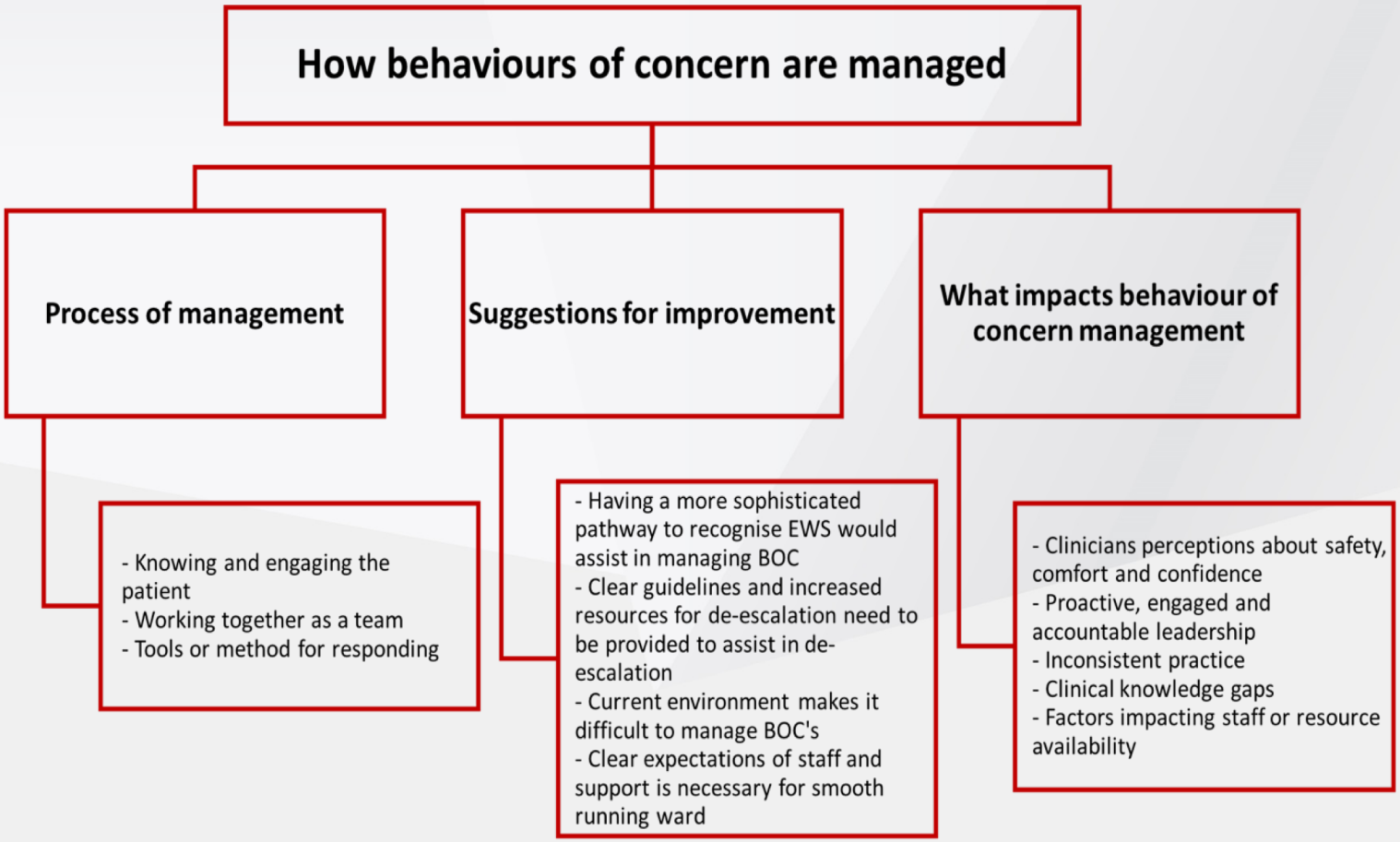
Summary of 12 months of BOCs

- Patients involved in a BOC episode;
  - more likely to be male, more than double the hospital length of stay (33-49 vs 16 days) and were more likely to have a schizoaffective or borderline personality disorder as a primary diagnosis.
  - many used or abused illicit substances (55%), were homeless (54%), single (91%) and unemployed (89%).
- 60% of deliberate self-harm and 70% of sexual harm episodes occurred outside of normal business hours (17:00-07:59).
- Medication and verbal de-escalation were the most common intervention used – sensory modulation used in 25% of episodes.
- Episodes of deliberate self-harm were most likely to result in patient and staff injury or use of mechanical restraint, whereas aggression was most likely to result in seclusion.

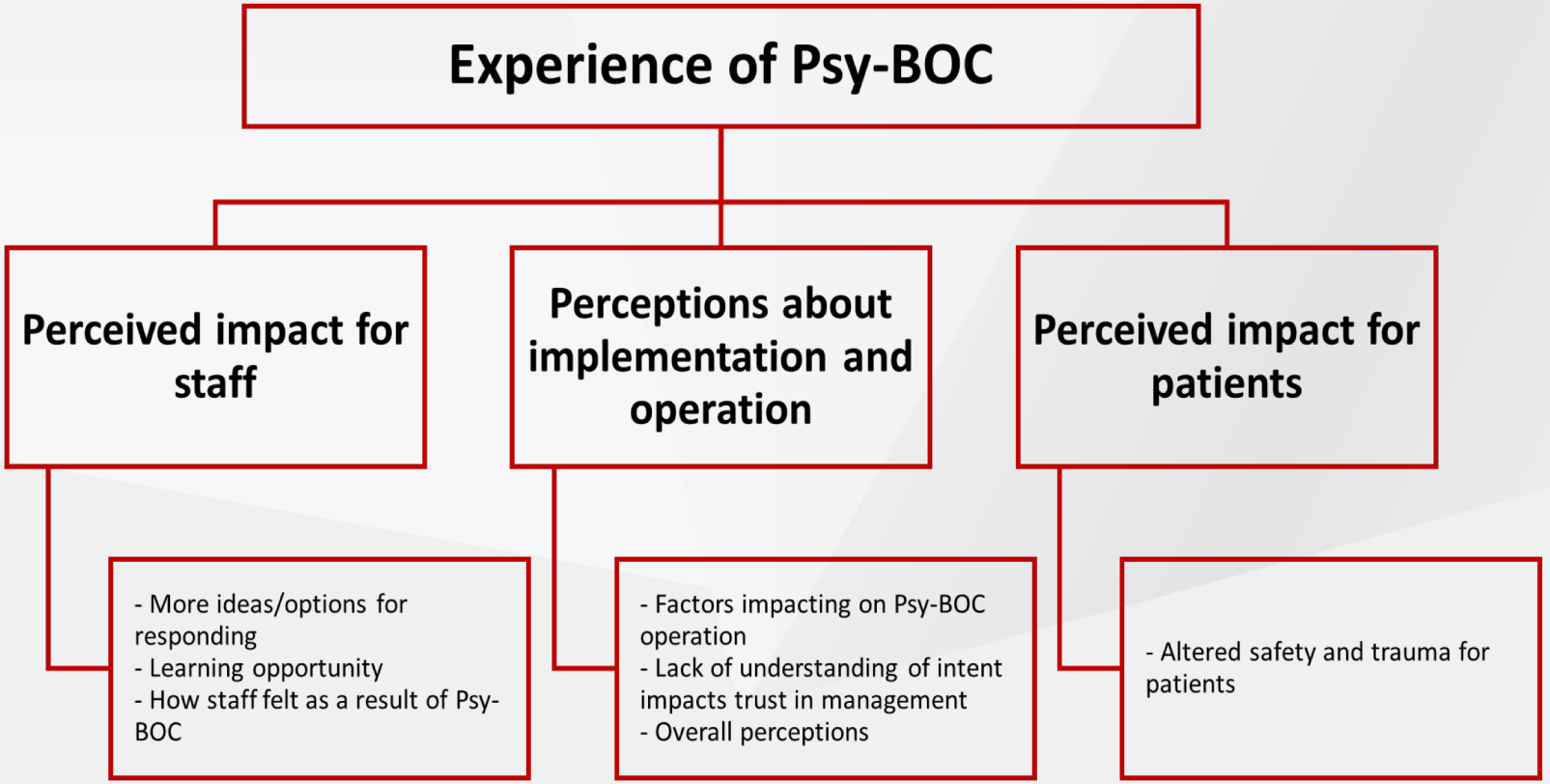
Focus Group Feedback – Theme 1:



Focus Group Feedback – Theme 2:



Focus Group Feedback – Psy-BOC



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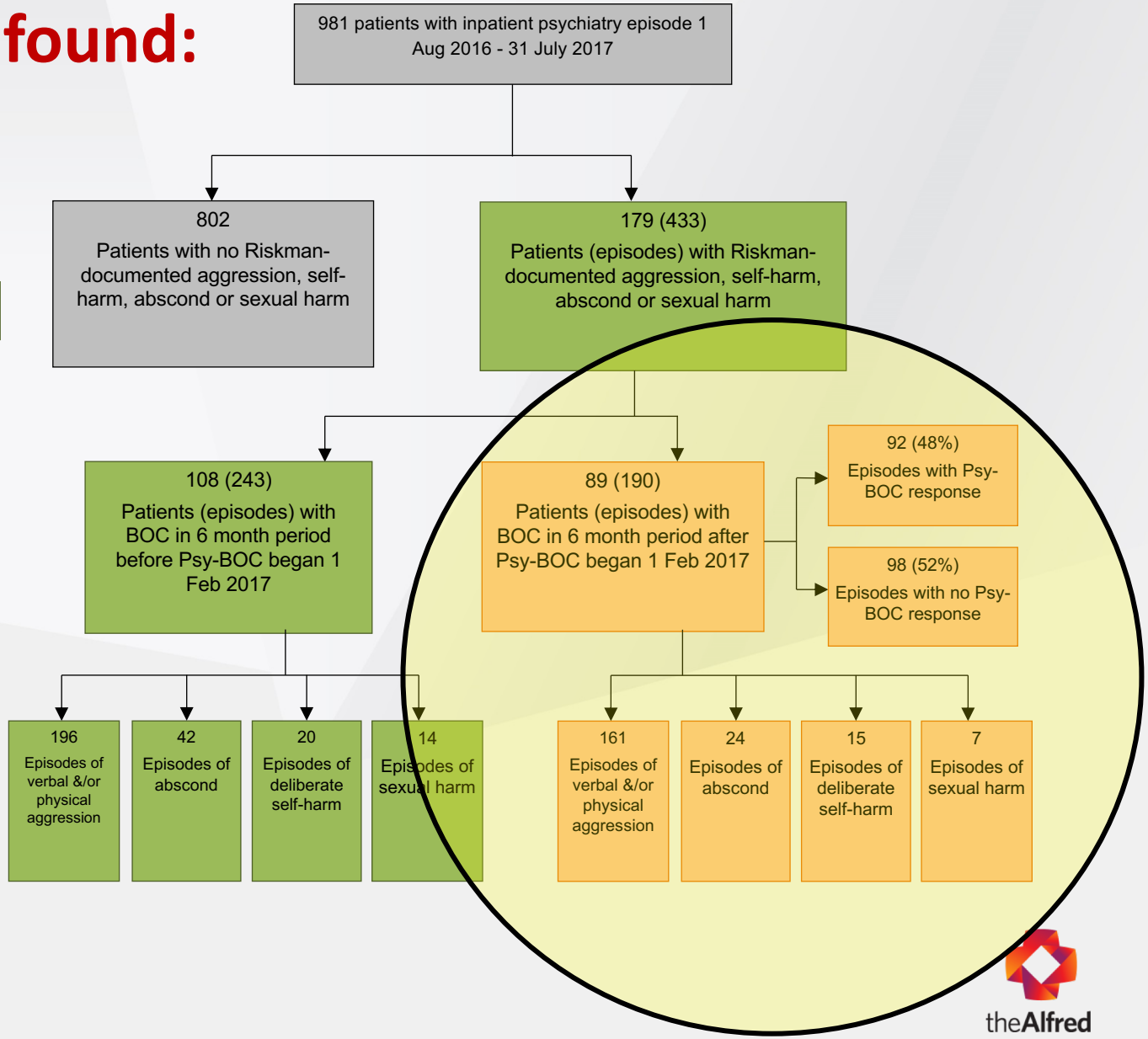


Psy-BOC evaluation

In the 6 months following Psy-BOC commencement:

- 92 Psy-BOC calls, mostly for **aggression**, **early warning signs** or **non-adherence to treatment**.
- Pharmacological interventions and verbal de-escalation were the most common interventions during a Psy-BOC, with sensory based interventions having increased from **25% to 40%.**
- After Psy-BOC commenced there were reductions of 23%-50% in the 4 measured BOCs.
  - *Verbal and Physical aggression* decreased by **24%**
  - *Absconding/attempts at absconding* decreased by **43%**
  - *Deliberate self-harm* decreased by **25%**
  - *Sexual harm* decreased by **50%**
- **Seclusion episodes reduced by 65%,** seclusion hours by **72%** and security standby episodes reduced by **20%.**
- Psy-BOC was more likely to occur in business hours, in the high dependency unit, for people with a psychosis diagnosis and with verbal aggression but less likely with physical aggression.
- Episodes with a Psy-BOC response were less likely to use seclusion, physical restraint, or to be transferred to HDU.

Management and outcomes of physical aggression episodes with or without a Psy-BOC response.

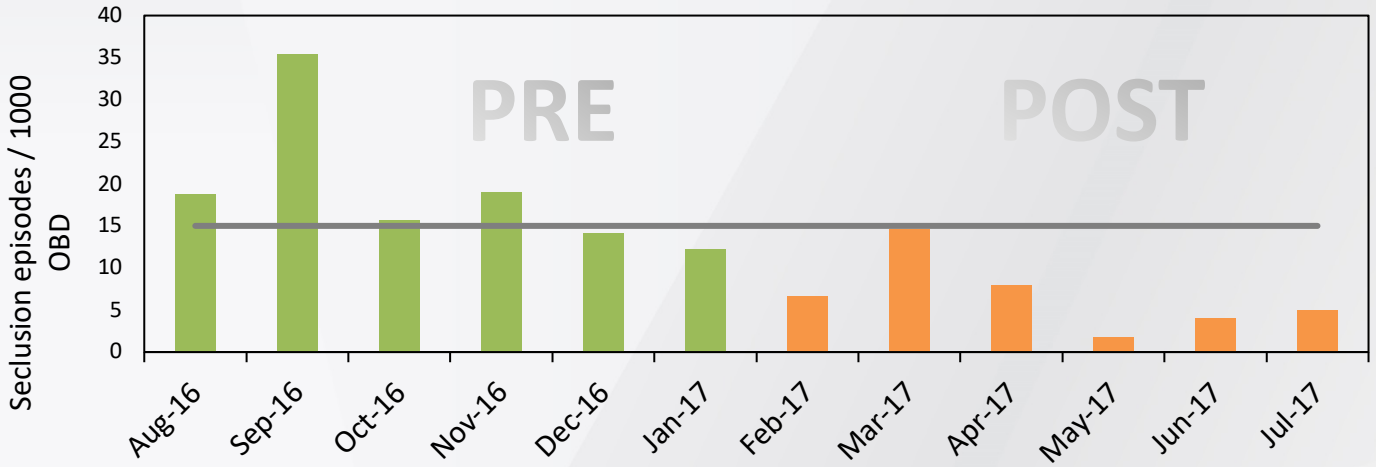
Variable	No Psy-BOC response (72 episodes)	Psy-BOC response (50 episodes)	p-value
Aspects of the response: n (%)			
Medication given	58 (80.6%)	41 (82.0%)	**0.84**
Verbal de-escalation used	68 (94.4%)	48 (96.0%)	**0.70**
Sensory modulation	6 (8.3%)	**14 (28.0%)**	**0.004***
Behaviour plan developed	3 (5.5%)	**6 (12.5%)**	**0.21**
Distraction with activity	11 (15.3%)	5 (10.4%)	**0.44**
Use of restrictive interventions: n (%)			
Transfer to HDU (if not in HDU)	23 (95.8%)	**4 (50.0%)**	**0.002***
Seclusion	41 (56.9%)	**17 (34.0%)**	**0.013***
Mechanical restraint	6 (8.3%)	**3 (6.0%)**	**0.63**
Physical restraint	40 (56.3%)	**12 (24.0%)**	**<0.001***
Adverse outcomes: n (%)			
Injury to patient	2 (2.8%)	2 (4.0%)	**0.71**
Injury to staff	5 (6.9%)	**0 (0.0%)**	**0.057**
Code grey [a]	14 (23.3%)	9 (19.6%)	**0.64**
Code black	1 (1.4%)	1 (2.0%)	**0.79**

[a] Whether a code grey was called was only known for 46 episodes with and 60 episodes without a Psy-BOC response.*p < 0.05

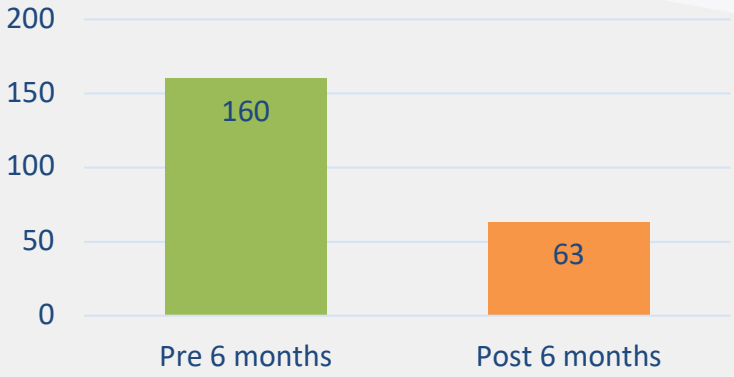
Events triggering PSY-BOC n=116

BEHAVIOURS OF CONCERN	NUMBER	Percentage *(rounded to the nearst whole number)*
Verbal Aggression *Verbal threats or intimidation towards staff or co-patients.*	80	69%
Physical Aggression *Any aggressive physical contact made towards another this also includes threatening gestures and physical intimidation.*	49	42%
EWS *Includes deterioration in MS, pacing, agitation, irritability (etc).*	37	32%
Aggression towards Property *Any aggression towards property including punching/kicking doors windows and chairs or throwing furniture or other items.*	33	28%
Non-adherence *Unwillingness to engage in treatment this includes medications, management plans nursing requests and physical interventions.*	22	19%
High risk admission *Any admission coming in with police, in restraint or with a high risk of aggression.*	10	9%
Deliberate self harm *Any form of intentional harm to self.*	7	6%
Sexual disinhibition *Includes predatory behavior (entering bedspaces/stalking behaviour), disrobing, sexual acts on ward and sexualized comments.*	5	4%
Absconding behavior *Includes attempting to push past staff, trying doors (etc).*	3	3%

Seclusion use pre and post Psy-BOC implementation



Total Seclusion Episodes



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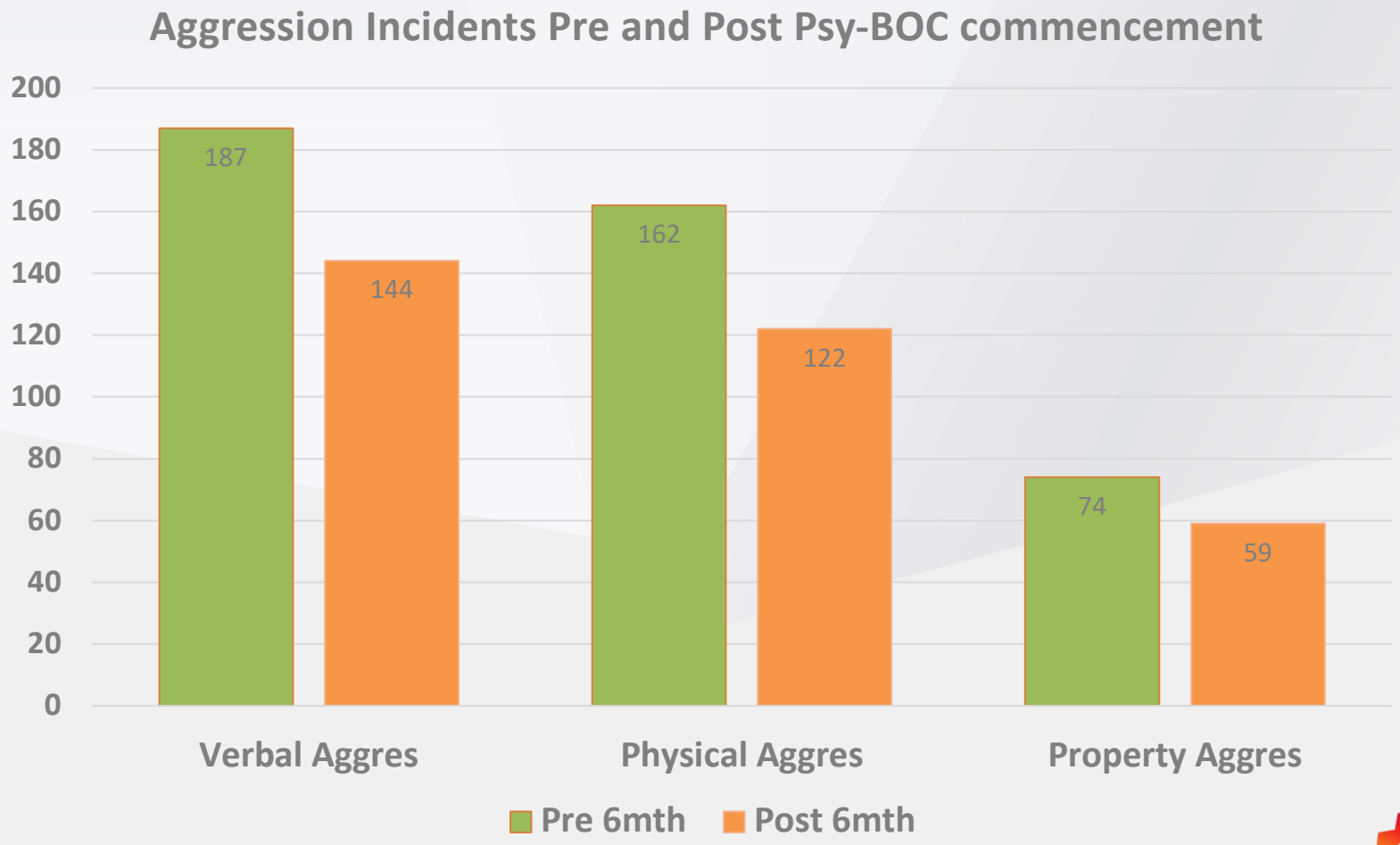
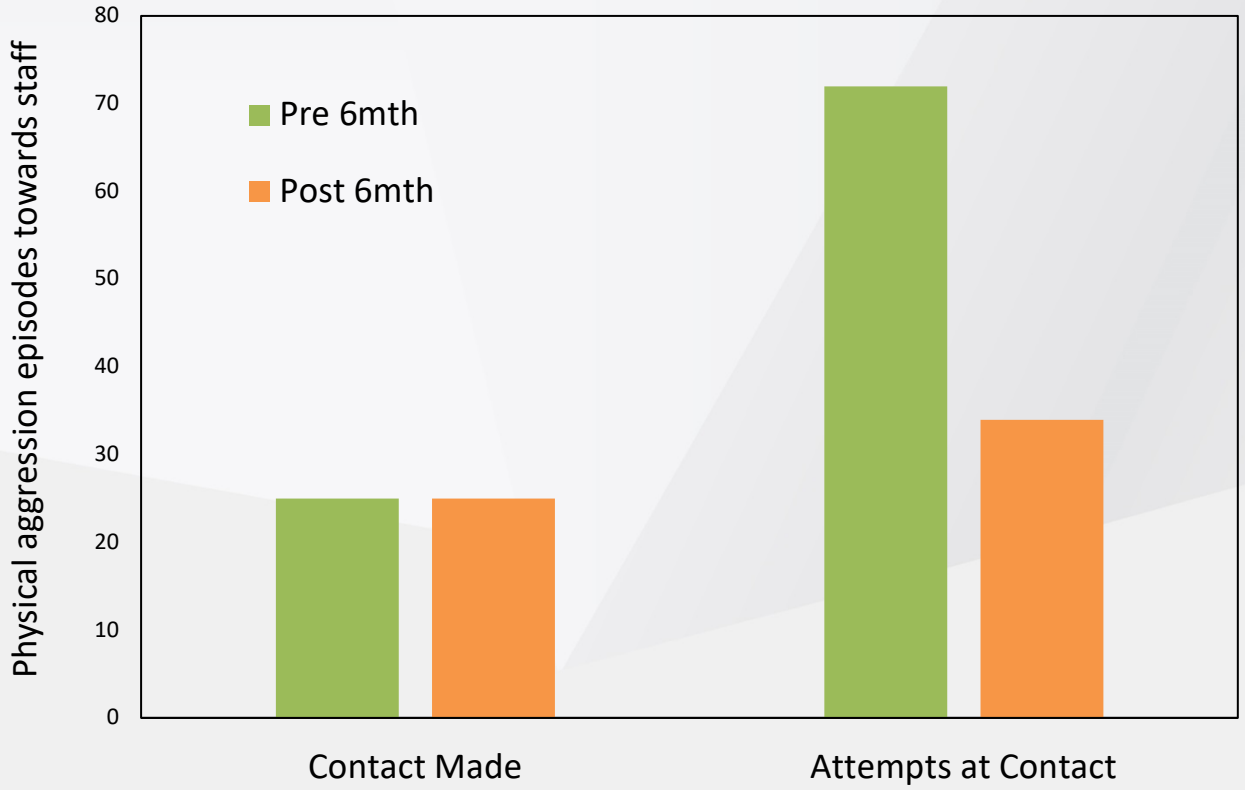
Aggressive incidents



Physical aggression towards staff:



Limitations

Focus groups

- Small sample sizes - may not have reflected opinions of entire multidisciplinary staffing groups.
- Nursing staff – a greater number were represented, in comparison to other mental health staff.

Data collection for Psy-BOC and Behaviours of Concern Audit

- Patient acuity – considered to be a potential source of bias, however very unlikely and decreased seclusion rates have remained stable since Psy-BOC's introduction
- Additional interventions implemented around same time – eg. OT group, within HDU, commenced October 2016
- Riskman data – Data was only collected from Riskman and may not reflect the true extent of behaviours of concern.

Recommendations

Embedding PsyBOC

- MDT Team structure
- Optimise process
- Strengthening Afterhours response
- Role of security caused us to rethink this
- Role of BOC calls in wider hospital

Building staff capacity

- Ensure PsyBOC team doesn't take over Mx
- De-escalation strategies
- PsyBOC allied health to join HDU rounds

Future

- Ensure a safe environment for all
- Seclusion free environment
- Clinical pathways for Mx BOC

Questions?