

Abstract 1005 Figure 3 Outcome measure: 30 day all-cause ED revisit rate. COPD: chronic obstructive pulmonary disease

Objectives Achieve 90% reliable implementation of COPD care-bundle among eCOPD patients discharged from ED-Obs by April 2017. The overall goal is to reduce 30 day all-cause ED revisits for eCOPD patients discharged from ED-Obs from the baseline rate of 49%.

Methods Setting: An 800-bed academic hospital with 700 eCOPD ED encounters/year, out of which 20% triage to ED-Obs. All patients triaged to ED-Obs with eCOPD diagnosis were included. A five-element COPD bundle designed to mitigate system-level failures, was adopted from in-patient setting. The bundle components were: appropriate inhaler regimen, 30 day inhaler supply, personalised inhaler education, standardised discharge instructions and follow-up in 15 days. A multidisciplinary team was formed to support bundle implementation within the 24 hours ED-Obs stay using Model for Improvement. Bundle component adherence and 30 day ED revisit rates were monitored using SPC p-charts. Hospitalisation rate from ED-Obs was used as balancing measure.

Results The patient characteristics were similar in baseline and post-bundle period. Multiple PDSA cycles were performed to achieve a final process (Figure 1). The adherence to COPD care bundle components has maintained >90% from 4/2017–8/2017 (Figure 2). The 30 day all-cause ED revisit rate reduced from 49% to 28% with a pending system-shift on SPC (Figure 3). Hospitalisation rate remained unchanged.

COPD: chronic obstructive pulmonary disease, ED: emergency department, Obs: observation, d/c; discharge, dispo: disposition, Rx: prescription, HER: electronic health record, INH: inhalers, PCP: primary care provider

RT: respiratory therapists, MLP: mid-level provider, EMR: electronic health record

COPD: chronic obstructive pulmonary disease

Conclusions Improving care at discharge transition of eCOPD patients from ED-Obs to home through reliable adherence to COPD care-bundle reduces 30 day all-cause ED revisits.

1010 A QUALITY IMPROVEMENT (QI) COLLABORATIVE TO IMPROVE INFLUENZA IMMUNISATION RATES FOR DISEASE-SPECIFIC PAEDIATRIC POPULATIONS

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Background Influenza outbreaks are a major public health concern yet the majority of work to improve immunisation rates has occurred within primary care settings. Children and patients with medical complexity are particularly at risk for complications due to influenza. Emphasis on immunising all patients against the flu, including patients seen in specialty clinics, is essential to help prevent the acquisition and spread of the influenza virus.

Objectives To improve flu immunisation rates for paediatric patients with chronic diseases across multiple medical divisions representing unique patient populations.

Methods Over a five year period we oversaw a multi-disciplinary, nursing-focused QI collaborative including primary care and specialty clinics at a freestanding children's hospital. The QI collaborative included monthly meetings with divisional champions, nursing leadership, pharmacy, and marketing for data review and synergistic learning. Key improvement initiatives included the development of standardised division-specific processes, implementation of a web-based dashboard for real-time data feedback, phone calls to patients and families to encourage and document flu immunizations, and a hospital-wide marketing campaign focused on patient and provider education. Five divisions followed the same disease-specific population, tracking data monthly, over the five year period.

Results From the 2013 to the 2017 flu season, immunisation rates increased significantly ($p=0.0270$). Populations included patients with sickle cell disease (58% to 84%), inflammatory bowel disease (35% to 65%), cystic fibrosis (79% to 89%), diabetes (20% to 70%), and patients on dialysis (89% to 100%).

Conclusions The creation of a multidisciplinary, nursing-focused collaborative was associated with significant improvements in influenza immunisation rates in specialty populations.

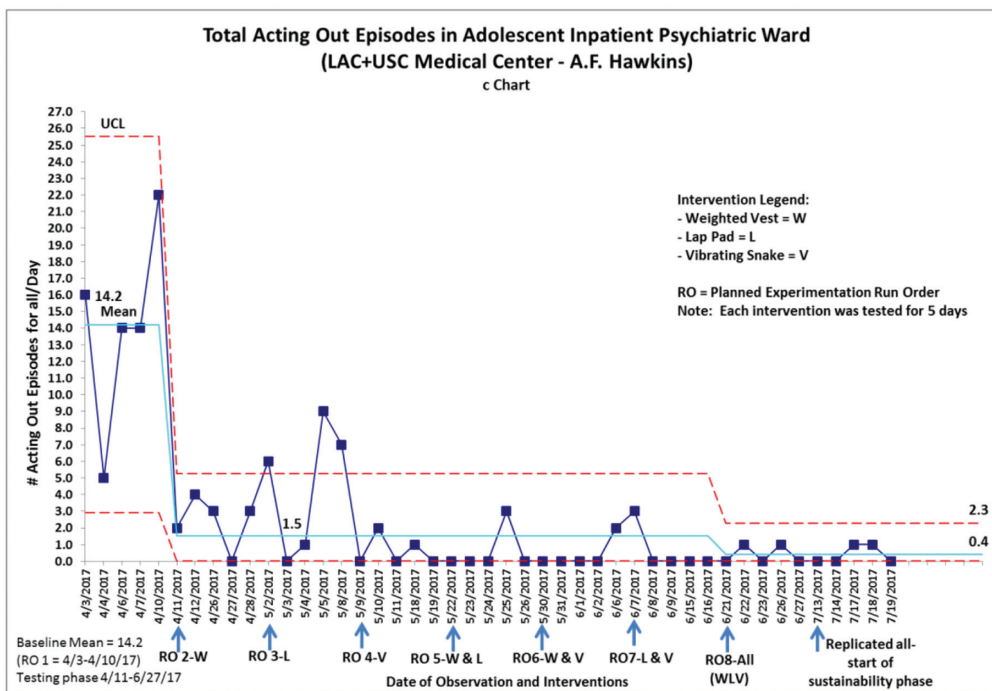
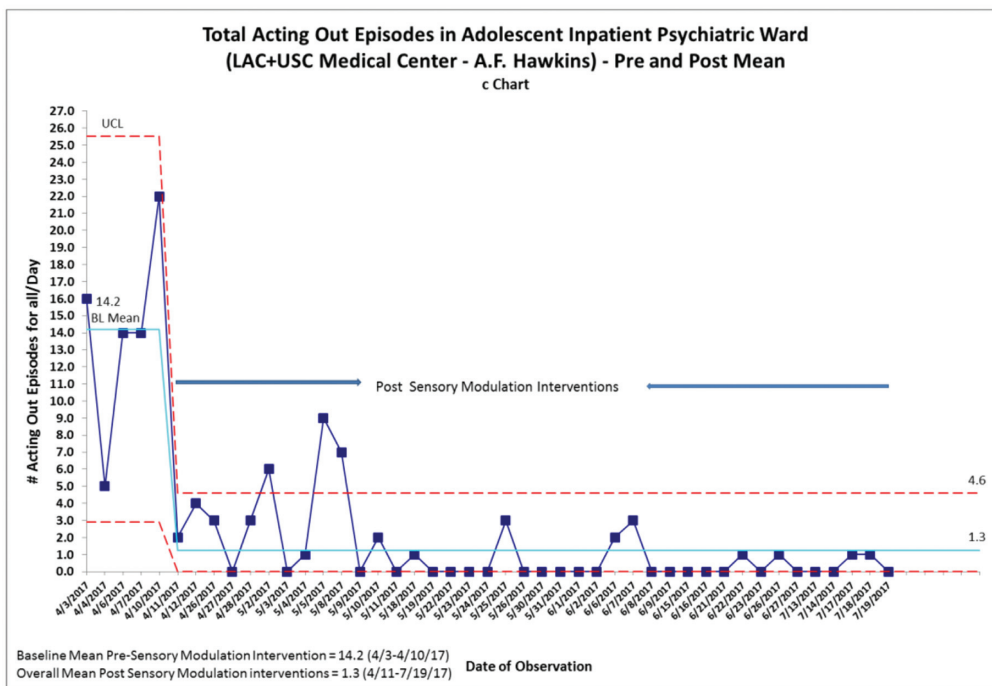
1011 THE USE OF SENSORY MODALITIES TO POSITIVELY IMPACT BEHAVIOURS OF ADOLESCENTS WITH SENSORY MODULATION DISORDERS WITHIN AN INPATIENT PSYCHIATRIC SETTING

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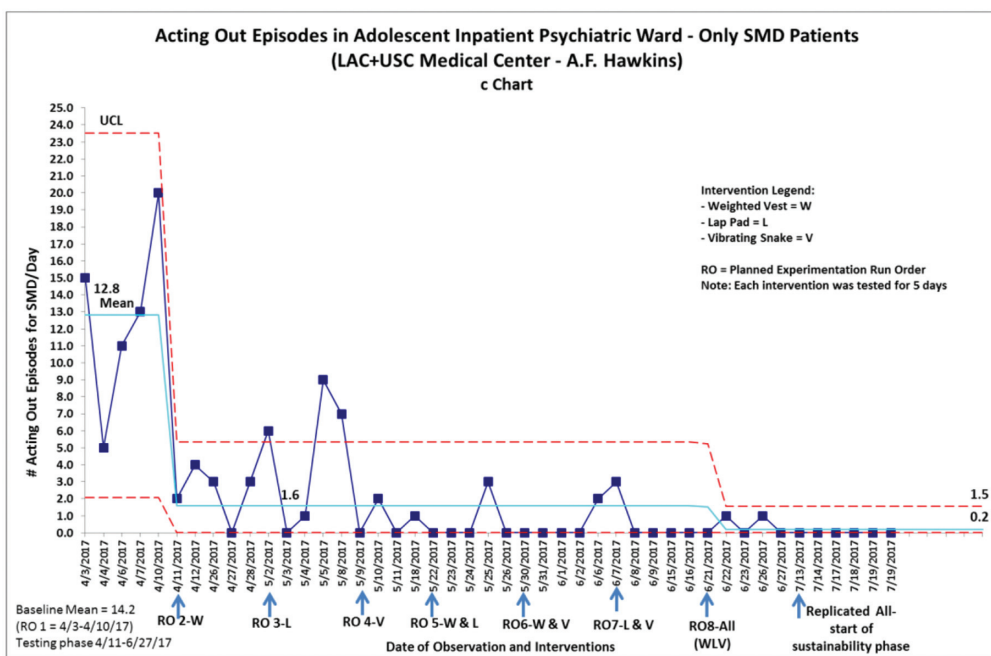
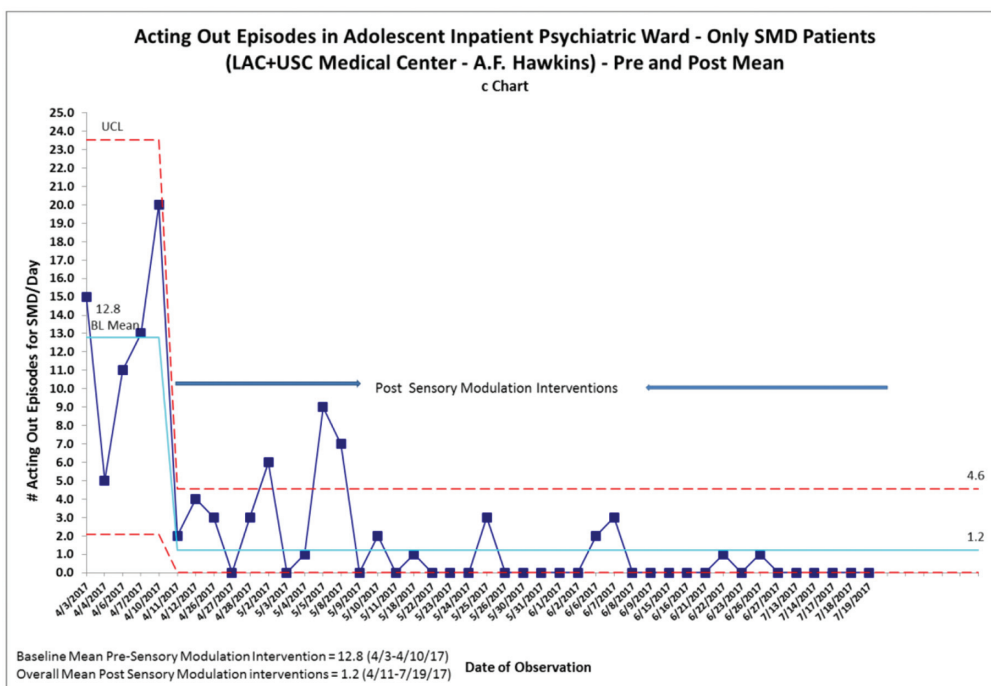
Background Adolescents with sensory modulation disorders (SMD) have a high incidence of acting out inappropriately due to difficulty focusing and self-regulating. Use of sensory

Control Charts:



Abstract 1011 Figure 1 Control charts

Control Charts:



Abstract 1011 Figure 2 Control charts

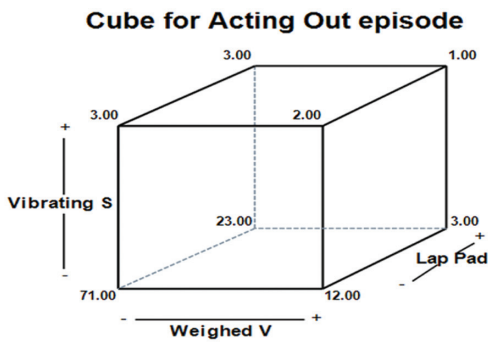
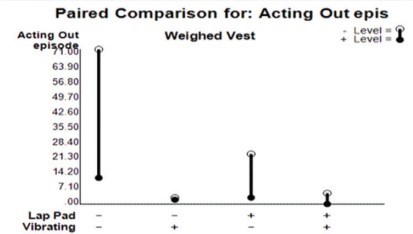
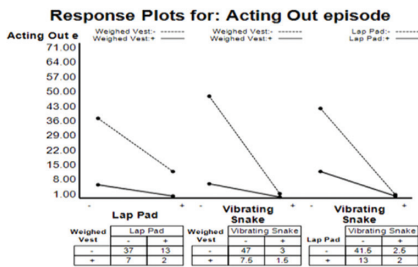
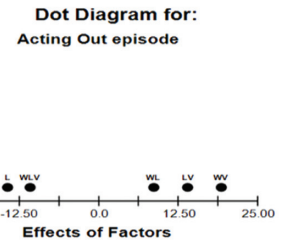
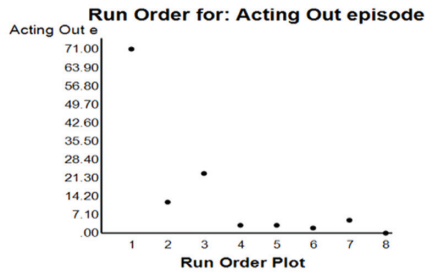
Planned Experimentation Charts and Diagrams:

2³

Test	RunOrder	Veighed Vet	Lap Pad	prating Sna	W x L	W x V	L x V	WxLxV	ing Out episode
1	1	-	-	-	+	+	+	-	71
2	2	+	-	-	-	-	+	+	12
3	3	-	+	-	-	+	-	+	23
4	5	+	+	-	+	-	-	-	3
5	4	-	-	+	+	-	-	+	3
6	6	+	-	+	-	+	-	-	2
7	7	-	+	+	-	-	+	-	3
8	8	+	+	+	+	+	+	+	1

Effect	-20.5	-14.5	-25	9.5	19	14	-10
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Short			
Factor Name	Name	Level 1	Level 2
1 Weighed Vest	W	-	+
2 Lap Pad	L	-	+
3 Vibrating Snake	V	-	+



Abstract 1011 Figure 3 Planned experimentation charts and diagrams

modulation interventions implemented by Occupational Therapists (OT) has been successful in other settings.

Objectives The purpose of this study is to examine the effectiveness of sensory modalities and engagement in sensory-based activities for decreasing the number of 'acting out' behaviours during classroom sessions on an adolescent inpatient psychiatric unit to <2/day.

Methods During this nine week 2³ factorial planned experimentation (PE) all patients, with or without SMD, who participated in OT were offered specific sensory modalities which included weighted vests, vibrating snake, and weighted lap pad as they worked on sensory-based activities during the OT sessions. Immediately following OT sessions, observations of patients' behaviours were made during the one hour classroom session.

Results Post introduction of sensory modalities, the baseline mean of 'acting out' episodes during class decreased for all patients from 14.2 to 1.3/day and SMD patients (account for 92% of episodes) from 12.8 to 1.2/day. Greatest improvement noted for SMD patients post all sensory modalities combination and sensory-based activities from mean of 12.8 to 0.4/day. This intervention replicated with similar outcome as the PE. Goal met and mean <1/day sustained until end of school session.

Conclusions Incorporating sensory modalities into adolescent psychiatric inpatients' daily routine prior to the formalised classroom setting improves their ability to handle sensory stimuli appropriately and decrease acting out behaviours. Plan to continue monitoring for sustainability and spread to the adult inpatient psychiatric setting.

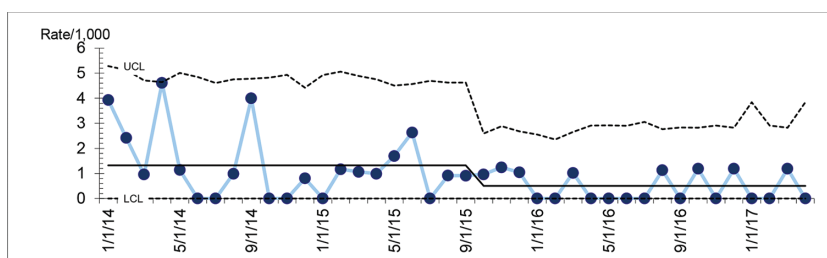
1012 REDUCTION OF HOSPITAL ACQUIRED CONDITIONS THROUGH THE USE OF A WORKSTREAM APPROACH IN PILOT UNITS IN HAMAD MEDICAL CORPORATION

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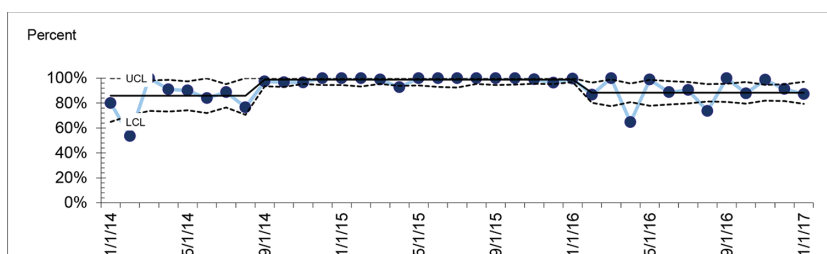
10.1136/bmj-2017-021424

Background Through a system-wide, modified IHI Breakthrough Series Collaborative, staff at the Hamad Medical Corporation aimed to increase the reliability of bundle compliance to reduce hospital acquired infections in critical care units, general wards and for peri-operative patients.

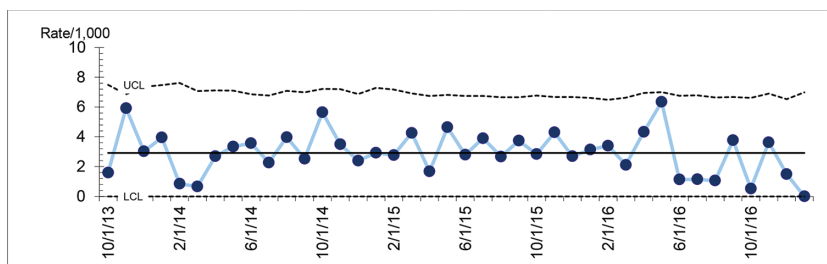
Objectives The aim of the collaborative was to achieve 95% reliable use of care bundles and 0 incidence or 300+days between patient harm events in participating units by December 2016.



Abstract 1012 Figure 1 VAP rate per 1,000 device days in BCA pilot units (U chart). Average VAP rate was 1.3 per 1,000 device days and reduced to 0.5 per 1,000 in October 2015. Average VAP bundle compliance was 86% and increased to 98% in September 2014, then reduced to 90% in January 2016.



Abstract 1012 Figure 2 Percent compliance with VAP bundle in BCA pilot units (P chart).



Abstract 1012 Figure 3 Central line infection rate per 1,000 device days in BCA pilot units (U chart). Average central line infection rate has remained constant at 2.9 per 1,000 device days despite an increase in insertion and maintenance bundle compliance.