

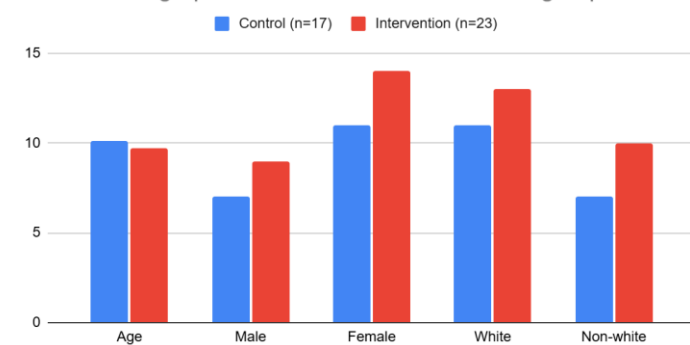
# Reducing restraints on a child residential unit with a DBT-informed Visual Skills Plan

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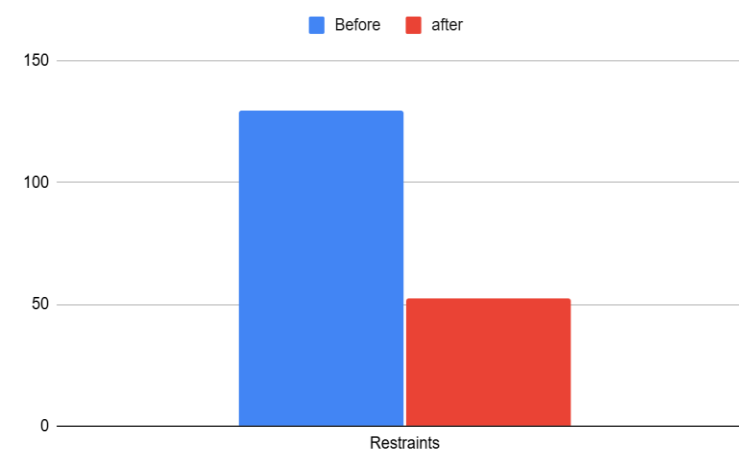
**INTRODUCTION-** Restraints and seclusions are used when there is an imminent risk of harm on inpatient units. Previous studies have used DBT in adolescents and visual support in children with autism to reduce crisis interventions. A DBT program in children, combined with a visual support, has yet to be studied in reducing restraints and seclusions (8). The study purpose is to evaluate if combining a Individualized Crisis Skills Plan (ICSP) with a DBT-Informed Emotional Regulation Skills System (ERSS) into a visual skills plan (VSP) will reduce restraints and seclusions in a child residential setting. A visual plan should be easier for children to understand at their developmental level, and posting in their room should increase access. We hypothesize integrating the individualized DBT skills into a VSP will reduce the restraints and seclusions in a child residential population.

**METHODS-** Population included an 8-bed child (mean age 9.9) residential unit from 07/2021 to 05/2024. There were 14 months of data in the control group (n=18) prior to intervention and 21 months after intervention for the intervention group (n=23). Prior to intervention, the ICSP did not include the ERSS and it was not available for the child's viewing. The intervention integrated the ERSS and the ICSP into one VSP. The plan was color coded for green as baseline, yellow for triggering, and red for escalation/outburst. DBT skills for each phase were determined after assessment and discussion with the child. The VSP was then posted in the child's room near their door. Data was collected through a retrospective chart review. The total number of physical interventions (TNPI), restraints, and seclusions per 1000 patient bed days was calculated for each month. An ANOVA test was completed comparing the TNPI, restraints, and seclusions before and after the intervention.

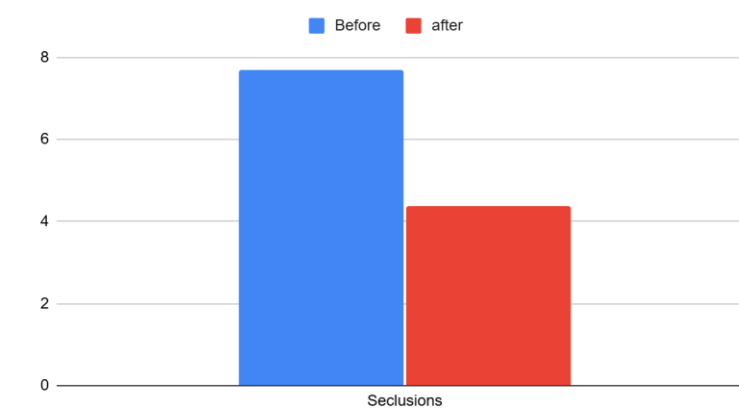
Patient demographics of control and intervention groups



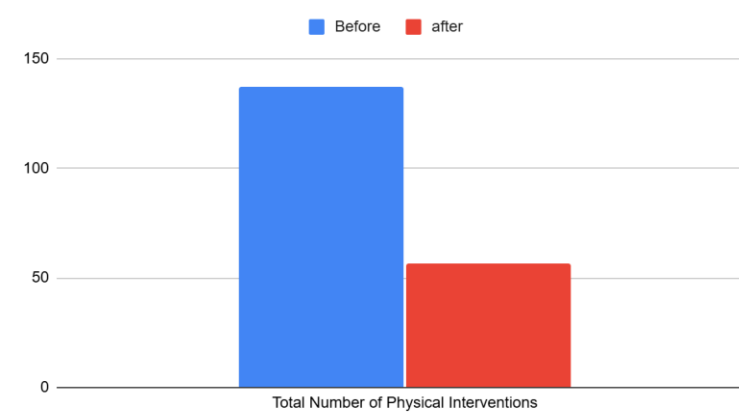
Restraints before and after Visual Skills Plan



Seclusions before and after Visual Skills Plan



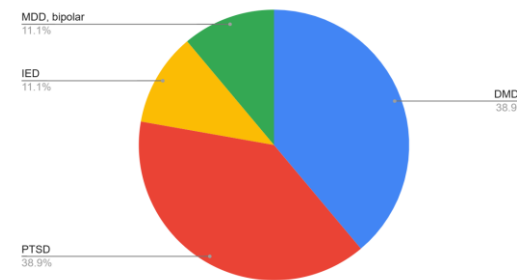
TNPI before and after Visual Skills Plan



**RESULTS-** The TNPI per 1000 patient bed days mean was 137.4+100.5 before intervention and 56.8+46.98 after, a significant decrease (p<.05). The restraints per 1000 patient bed days mean was 129.7+93.82 before intervention and 52.44+42.73 after intervention, also a significant decrease (p<.05). The seclusions per 1000 patient bed days mean was 7.687+9.69 before intervention and 4.39+7.04 after, a decrease but not significant (p=.252).

**DISCUSSION-** The integration of a DBT-informed ERSS and the ICSP into a VSP was effective in significantly reducing the TNPI and restraints in a child residential setting. This is meaningful, as this intervention could easily be replicated in other residential and inpatient settings. Rather than listing skills in standard written or outline format, we integrated skills from the ERSS into a visual plan with specific skills for each phase. A visual color coded system is simple and concrete, and easier to understand for the developmental stage of a child. Placing the VSP in the patient's room provided easier access, and increased focus on practice of the skills at baseline due to frequent viewing in the patient's room. Limitations include this was a retrospective chart review and not a blinded or controlled trial. Future studies should examine adolescents and inpatient settings.

Diagnosis in control group (n=17)



Diagnosis in intervention group (n=23)

