

Examining the Relationship Between the Use of Restraint Interventions and Staff Injuries on an Adult Inpatient Psychiatric Unit

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A Journey

- An idea about predicting risk for being secluded or restrained on a PIC unit initiated.....
 - a restraint reduction task force
 - significant reductions in the use of restraints
 - strong reaction from staff
 - questions
 - findings we will discuss today

Initial Research Project

- Can RAI-MH data at admission be used to predict the risk for restraint/seclusion for an admission to the PICU
- An exploratory logistic regression analysis found that a six factor solution could accurately predict 82.6% of admission to the PICU over a six month period (July to Dec, 2010)
- A risk assessment tool employing the 6 factors could be employed in existing RAI-MH software

Multi-Site Study

- These results generated interest from other Ontario Institutions
- Led to the development of a multi-site study to examine the generalizability of these results
- In the final stages of planning
- Will commence sometime this year

An Opportunity

- An opportunity arose for Stacey to develop an idea for a project in one day per week as Clinical Specialist
- Restraint Reduction Task Force for our AIP units was developed
- We were provided approval with an 18 month window of opportunity

Six core strategies: Kevin Huckshorn

The Task force consisted of 2 clinical specialists as co-chairs, 2 psychiatrists, 1 associate VP, 1 MHAP director, 2 AIP managers, 1 risk manager, 3 clinical leaders and 2 frontline nursing staff

Six sub-committees:

- Leadership
- Data
- Workforce Development
- Use of S/R Reduction Tools
- Consumer Roles
- Debriefing Techniques

Reaction versus Reality #1

- After the first six months of Task Force activities there was significant “push back” from staff
 - Many staff communicated the impression that the Task Force efforts had resulted in an increase in the use of restraints
- May of 2012 we had been able to institute an incident reporting system
 - By July of 2012 we had become confident in the accuracy of the number of restraint episodes being reported

Figure 1. Comparison of PICU incidence of restraints reports prior to and post Restraint Reduction Task Force initiatives.

	July to Dec. 2010	July to Dec. 2012	Change (%)
Total number of admission to PICU	204	XXX	XX
Total number of admission to PICU with at least 1 incidence of restraint	58	30	-48
Total number of unique incidences of restraint interventions	270	128	-52
Total number of unique incidences of physical restraint interventions	30	7	-77
Total number of unique incidences of chemical restraint interventions	46	10	-78
Total number of unique incidences of environmental restraint interventions	194	111	-43

Reaction versus Reality #2

- The next message communicated from many staff was that perhaps the number of restraint interventions were reduced but that there was a negative impact upon the therapeutic environment
 - They stated that staff injuries due to violent altercations with patients were rising because of the inability to employ restraints as regularly as they would have prior these initiatives
- We indicated to staff that we would attempt to examine this issue

Hypothesis

- That reductions in the use of restraint interventions would result in reduced numbers of staff injuries

Method

- Data related to the prevalence of restraint interventions and staff injuries were available from July to December of 2010 and from the same period in 2012
- Employ a variety of statistical methods to compare the two periods to determine if changes in the prevalence of restraint interventions were correlated with changes in the number of physical injuries to staff

Figure 2. Comparison of PICU incidence of restraints and staff injury reports prior to and post Restraint Reduction Task Force initiatives. *

	July to Dec. 2010	July to Dec. 2012	Change (%)
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Total incidents of Staff injuries reported	29	11	-62
Total incidents of Staff injuries reported involving patient violence	26	8	-69
Total incidents of Staff injuries reported directly involving application or removal of restraints.	7	0	-100

Conclusions

- Purposeful implementation of evidence based restraint reduction activities results in meaningful change
- Reductions in the employment of seclusion and restraint interventions appear to correlate with decreased numbers of physical injuries to staff related to implementation of restraint interventions
- This reduction may be the result of reduced physical contact between staff and patients and increased utilization of assessment and de-escalation/therapeutic techniques
- Restraint reduction activities may reduce cost associated with staff injuries

Next Steps

- Our next steps in this evolving examination of the impacts of instituting restraint reduction efforts will examine whether the reduction of the use of restraint interventions is associated with reductions in injuries to patients
- Patient injury data is currently being tabulated for examination