Outcomes

First randomised controlled-trial research on seclusion and restraint reduction achieves intent

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WHAT IS ALREADY KNOWN ON THIS TOPIC?

Seclusion and restraint (SR) are centuries-old, frequently used psychiatric practices which lack an evidence base establishing their therapeutic efficacy.[1] They are emergency containment procedures in which staff use physical force, the environment and/or devices to control patient behaviour. Their use creates substantial risk of physical and emotional harm, increases violence, claims significant time and resources and prolongs treatment and recovery from mental illness. For these reasons, reducing and preventing SR use is a growing focus in psychiatric services.[2]

WHAT DOES THIS PAPER ADD?

▸ This paper is evidence that it is possible to use randomised controlled trial methodology to study SR reduction with a volatile, high-risk population in a high-security setting.
▸ It also demonstrates that an evidence-based practice developed in the USA for non-forensic settings can be successfully implemented in other countries with different languages/cultures and populations without increasing violence.
▸ This research indicates that SR reduction also reduces SR duration and staff sick leave too.

LIMITATIONS

▸ There are limitations to this work. The first limitation is generalisability. The research was conducted with a small sample size and a discrete population—violent men with schizophrenia or delusional disorders being treated in a long-term forensic facility in Finland.
▸ The other limitations are replicability and feasibility. The authors provided 12 months of advance organisational preparation and 6 months of staff training. In short-term or managed-care settings, this approach may not be possible to implement.

WHAT NEXT IN RESEARCH?

Given significant international SR practice variance, future research should replicate the core strategy training in a randomised controlled trial approach outside of Finland. Future study should also include implementation in other settings with different populations and alternatives to SR such as sensory-based interventions.[2–4] In addition, research to measure the impact of each of the six core strategies (leadership, workforce development, patient inclusion, prevention tools, using data to inform practice and debriefing), independently, is needed to assess the strength of each specific strategy contributing to SR reduction/prevention.

COULD THESE RESULTS CHANGE YOUR PRACTICES AND WHY?

The results achieved by Putkonen and colleagues could change practice. Their work eliminated the argument that it is not possible to reduce and prevent SR in a high-security forensic service. Their work expanded some US and UK SR reduction efforts to include forensic services.[3 4]

REFERENCES
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ABSTRACT FROM: Putkonen A, Kuivalainen S, Louheranta O, *et al.* Cluster-randomised controlled trial of reducing seclusion and restraint in secured care of men with schizophrenia. *Psychiatr Serv* 2013;64:850–5.

Participants Men with psychotic illnesses (97% schizophrenia spectrum disorders or delusional disorders) and a history of violence.
Setting Four high-security mental health wards (88 beds), in the Niuvanniemi Hospital in Finland.
Intervention Strategies to prevent seclusion and restraint (SR) versus usual care. All 13 hospital wards were informed about the project and the need to reduce SR and coercive practices during the 'information year' (2008). In the 'intervention year' (2009), two wards were allocated to the intervention. The research team trained and supported staff in the implementation of six core strategies to reduce use of SR and observation days. The intervention included individual and group meetings with staff to provide counselling and to review any incidents that took place (including suggestions for practice improvements). Sessions were also held with service users to understand their experiences, triggers of violence and effective calming strategies.
Comparison Usual care (two wards).

Patient follow-up Data from the 'intervention year' (2009), 'information year' (2008) and the 'reference year' (2007) were compared.
Allocation Cluster randomisation (by ward, stratified by use of SR).
Blinding Unblinded.

OUTCOMES
Effect of the intervention
Seclusion-restraint and observation days decreased from 30% to 15% IRR=0.88, 95% CI 0.86 to 0.90) of total patient time in intervention wards vs a non-significant 6% decrease from 25% to 19% (IRR=0.97, 95% CI 0.93 to 1.01) in control wards. Seclusion-restraint time decreased from 110 to 56 h/100 patient-days (IRR=0.85, 95% CI 0.78 to 0.92) in intervention wards vs a non-significant increase from 133 to 150 h (IRR=1.09, 95% CI 0.94 to 1.25) in the control wards. There was no significant difference in violence in either group: decrease from 1.1% to 0.4% of patient-days (IRR=0.92 95% CI 0.79 to 1.05) in the intervention wards vs 0.1% to <0.01% (IRR=0.90, 95% CI 0.64 to 1.23) for control wards.

Commentary on

Effect of the project on the hospital as a whole

Annual SR time decreased in both project years compared with 2007 (IRR=0.75, 95% CI 0.73 to 0.78 in 2008; IRR=0.49, 95% CI 0.47 to 0.51 in 2009). Reports of patient-to-staff violence increased during the information year (18 reports) and intervention year (22 reports) vs 13 prior to the project. However, sick leave associated with patient-to-staff violence reduced from 114 days in 2007, to 29 days in the information year (2008) and 40 in the intervention year (2009). The duration of patient-violence-related sick leave also reduced by 80–82% from 8.8 days in 2007, to 1.6 days in 2008 and 1.8 days in 2009.

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