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The Use of Seclusion and Restraints in the Inpatient Psychiatric Hospital Setting: A Systematic Review of the Literature

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Author Note

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Abstract

The use of seclusion and restraint (S/R) is a practice that has been shown to be potentially harmful to patients on a physical and emotional level. This review examines 20 research publications in order to address the attitudes of staff and service users regarding use of this intervention, as well as to explore how use of alternative behavioral and environmental modification interventions compares to standard nursing care in terms of S/R prevalence. The review found that there are many viable interventions alternative to S/R that are more palatable to patients and nurses. Variability of interventions addressed in the included studies indicates a need for repeated studies examining each individual intervention, and further literature reviews are indicated to confirm reliability and validity of the findings of this review.

Keywords: seclusion, restraint, psychiatric, prevention, reduction, alternatives, de-escalation, Safewards, Six Core Strategies

The Use of Seclusion and Restraints in the Inpatient Psychiatric Hospital Setting: A Systematic Review of the Literature

The use of seclusion and restraints (hereafter referred to as S/R) in the hospital setting is an intervention that has long been debated in terms of effectiveness, usefulness, and safety. Evidence supports that use of S/R is linked to negative physical and psychological patient outcomes, decreased patient satisfaction with hospital stays, and increased morbidity and mortality rates, to the point that many say that use of this practice is no longer supported by evidence (American Psychiatric Nurses Association, 2014; Ezeobele, Malecha, Mock, Mackey-Godine, & Hughes, 2014; Godfrey, McGill, Jones, Oxley, & Carr, 2014; Guzman-Parra et al., 2016; Keski-Valkama et al., 2010; Kontio et al., 2010; Kontio et al., 2012; Ling, Cleverly, & Perivolaris, 2015; Muir-Cochrane, Baird, & McCann, 2015; Roles, Gouge, & Smith, 2014; Simpson, Joesch, West, & Pasic, 2014; Wieman, Camacho-Gonsalves, Huckshorn, & Leff, 2014). In fact, many nationally recognized healthcare organizations, such as the APNA, Joint Commission, and Centers for Medicare and Medicaid services have recommended the use of alternative interventions whenever possible. The Centers for Medicare and Medicaid services have formally changed their Code of Federal Regulations, specifically regarding patients' rights, to stipulate that "restraint or seclusion may only be used when less restrictive interventions have been determined to be ineffective to protect the patient, a staff member or others from harm…[and] the type or technique of restraint or seclusion used must be the least restrictive intervention that will be effective to protect the patient, a staff member, or others from harm," (Centers for Medicare and Medicaid Services, 2012). However, much of the evidence indicates that these stipulations are not upheld in common practice, and that implementation of and continual adherence to policy changes supporting the decreased use of S/R are severely lacking

in the clinical setting (Jacob et al., 2016; Soininen et al., 2013; Sutton, Wilson, Van Kessel, & Vanderpyl, 2013; Wieman, Camacho-Gonsalves, Huckshorn, & Leff, 2014). Therefore, it seems clear that the use of S/R continues to be common practice, despite the abundance of evidence indicating that it is no longer considered a safe and effective primary intervention.

In order to address the conflict between clinical practice guidelines and actual common practices regarding the use of S/R in the inpatient psychiatric hospital setting, it was deemed prudent to conduct a systematic review of the literature on the use of S/R in the clinical setting. In conducting a systematic review, the original intention was to shed some light on the potential reasons for low implementation of and adherence to policy change; however, it was quickly discovered that there is a general agreement that the use of S/R prevails because of a generalized lack of knowledge about alternatives to the use of this intervention. In addition to this theme of knowledge deficit, it was found that nurses' perceptions of and reactions to the events leading up to the use of the intervention greatly impacted the way the intervention was implemented. Therefore, the direction of the review was amended to focus on studies that examine alternatives or modifications to classic S/R use, as well as studies that examine both nurses' and patients' perceptions and experiences involving this intervention.

Purpose

The purpose of this review is to address two research questions, which are designed to examine the effectiveness and safety of S/R use from the perspective of patients and staff, as well as to explore the possibility of widespread implementation of alternative interventions. The first question to be addressed was designed using the PICO format (Problem/Population, Intervention, Comparison, Outcome) and is as follows: In inpatients of psychiatric care facilities, how do behavioral interventions, compared with standard care/non-use of behavioral

interventions, affect the use of S/R? In order to address the significance of finding alternatives to the use of S/R, the following question will also be considered: How do adult inpatients and staff of psychiatric care facilities perceive use of S/R? These two questions will be used to guide a critical appraisal of the evidence related to this topic (see Appendix A for a complete Table of Evidence). In this review, the author will examine trends and patterns in the use of this intervention, and what, if any, implications for clinical practice related to these trends exist. In addition, the indications for further research will also be addressed.

Methods

The literature selected for this review was obtained by performing an exhaustive search of the following databases: Academic Search Complete, Alt Healthwatch, CINAHL Plus with Full Text, Consumer Health Complete—EBSCOhost, Health Source—Consumer Edition, Health Source—Nursing/Academic Edition, MEDLINE with Full Text, Psychology and Behavioral Sciences Collection, and PsycINFO. These databases were selected because of their relevance to the topic being addressed, as well as the credibility standards that publications must meet in order to be included in the databases. This was to ensure that the literature obtained came from professional, credible resources, and contained only reliable and verified information. Keywords for searches included: restraint, seclusion, psychiatric, prevention, reduction, alternatives—all of which were combined in a variety of ways, but always including the term restraint or seclusion as the primary search item. In addition, the phrases “6 core strategies,” “Safewards,” and “de-escalation” appeared many times throughout the initial literature search. These terms were used to perform a focused search to generate literature addressing intervention modalities. Studies were included if they addressed the implementation of interventions that were specifically alternatives to S/R, compared the use of S/R against alternative interventions, examined

perceptions of staff and/or patients who have experienced the use of S/R, offered S/R rate reduction strategies and outcomes, or provided information regarding patterns of use, indicators of intervention efficacy, or specific implications for practice related to the topic. Only research publications were considered for the review, and other systematic reviews were excluded. Studies published before the year 2010 were excluded from this review. In addition, only studies with adult participants in a psychiatric setting were included. The aforementioned search criteria and limiters generated approximately 200 publications contained within the databases that were previously listed. This number was reduced to 50 by excluding multiple digital copies of original publications, and then examining the abstracts of the remaining studies to determine which were most relevant to this review using the previously described parameters. Then, each of these remaining publications were read in entirety, and the 20 most relevant and informative studies were chosen to be included in the final review. This was done in order to ensure that this review is as comprehensive as possible while still maintaining a focus on the topic at hand.

Review of Literature

This review contains a combination of quantitative and qualitative research studies, which were selected to reflect S/R reduction methods and efficacy of these techniques, as well as to provide a depiction of staff and patient attitudes towards S/R use. There was high consistency of findings among like studies, which were grouped by subtopic (patient perception, staff perception, alternatives/reduction methods, and predictors of S/R use) and critically evaluated. A brief description of each study included in this review, including setting, population, sample sizes, design, level of evidence, findings, implications, and limitations, can be found in the form of a Table of Evidence in Appendix A.

Patient perception of S/R use

In order to appreciate the implications for S/R reduction, it is important to consider this intervention from the perspective of those who are most directly impacted by it—the patients. Throughout the literature addressing patients' attitudes about this intervention, there seems to be a general consensus of disapproval and negativity. A pattern of dissent emerged related to patients' perceived loss of autonomy, an inability to have basic needs met, a lack of understanding of the necessity of the intervention, and a loss of trust in the care provider (Ezeobele, Malecha, Mock, Mackey-Godine, & Hughes, 2014; Kontio et al., 2012; Ling, Cleverley, & Perivolaris, 2015; Mérineau-Côté & Morin, 2014; Soininen et al., 2013).

These attitudes present a major obstacle in the formation of a positive and trusting nurse-patient relationship, which is crucial in the psychiatric care setting. The very foundation of psychiatric nursing is built upon a nurse's ability to engage in therapeutic communication with patients; therefore, when a patient's level of trust in his or her nurse declines, that nurse's ability to provide the highest quality of care possible is severely diminished. Furthermore, according to the literature, many patients felt that the reasons for the use of S/R were unclear, and that they felt they were being punished but did not know why, which significantly contributed to the loss of trust (Ezeobele et al., 2014; Kontio et al., 2012; Ling et al., 2015; Mérineau-Côté & Morin, 2014; Soininen et al., 2013).

In addition to loss of trust and lack of understanding of the necessity for S/R, many patients expressed a perceived loss of autonomy and felt that they were unable to have their basic needs met. This is significant because it violates the American Nurses Association's Nursing Code of Ethics, which states that nurses are to uphold and preserve patient autonomy, and practice in a manner of beneficence and nonmaleficence, among other things (American Nurses

Association, 2015). While the use of S/R is considered to be an acceptable intervention, it appears that in certain contexts, it could be perceived as an unethical practice. For example, Kontio et al.'s 2012 publication includes several quotes from patients who had experienced S/R, expressing problems related to meeting of basic needs. One such statement that particularly exemplifies a situation in which S/R use becomes unethical is as follows: "...I was dirty, I sweated all the time. They washed my hair once a week and I didn't have a chance to brush my teeth. I was thirsty and I peed into the floor-drain...I kicked the door a long time so that they could understand my need to get to the toilet. Once I relieved myself on the porridge plate and put two sandwiches on it to prevent the smell..." (Kontio et al., 2012). This is just one example of many similar patient statements regarding treatment during S/R, and although the literature was not limited to studies done in the United States, it is presumed that nurses worldwide ought to be held to similar ethical standards as those outlined in the ANA Code of Ethics.

Staff perception of S/R use

Another important perspective to consider is that of the staff implementing S/R. According to the literature, a theme of ethical dilemma and perceived lack of alternatives prevails. This is significant because nursing attitudes and perceptions represent the biggest obstacle to the implementation of new practices, yet there are very few existing publications that address this, with only two publications found that were considered to be relevant enough to be included in this review. These publications address the nurses' perceived ethical dilemmas regarding S/R use, in terms of balancing the best interests of one patient against the best interests of all the others, as well as the perception that little to no alternatives to S/R are available. This perceived lack of alternatives highlighted in Muir-Cochrane, Baird, and McCann (2015) represents one of the biggest barriers to adopting a change in practice; however, the attitudes

expressed in Kontio et al. (2010), which include suggestions for future changes, indicate that these barriers can be overcome. Specifically, it is worth noting that in both publications, nurses expressed feeling as though there were no other options besides S/R in the heat of the moment, as everything progressed very quickly and the nurses were forced to make a decision as the situation worsened; however, after the situation had passed, these nurses described interventions that would have decreased the likelihood that S/R would have been necessary. This conflict between action and planning is an indication of a large gap in knowledge in the nursing community, specifically that of putting knowledge into action.

Use of alternative interventions

The aforementioned gap in knowledge reinforces the idea that, while S/R is a necessary and inevitable intervention, execution of this intervention can be altered to be more favorable to the patient and the care provider, thus upholding ethical standards and preserving trust. In addition, it is important to consider interventions that may either replace or prevent the need for S/R. Much of the literature in this review focuses on the use of interventions designed to reduce the use of/need for S/R, both in terms of informal interventions, such as the use of de-escalation methods, sensory modulation, and time-out (Bowers et al., 2012; Godfrey, McGill, Jones, Oxley, & Carr, 2014; Hallett & Dickens, 2015; Sutton, Wilson, Van Kessel, & Vanderpyl, 2013), as well as formal interventions, such as the Safewards model and the Six Core Strategies model (Bowers et al., 2015; Guzman-Parra et al., 2016; Wieman, Camacho-Gonsalves, Huckshorn, & Leff, 2014). Many of these interventions are very similar in nature, and tend to focus on strategies to prevent ‘escalation’ of patient behaviors, specifically those behaviors that would pose a threat to the patient, staff, or others. The provisions of these intervention methods echo the opinions voiced by patients from the previously discussed publications regarding patient

perception of S/R use, specifically in terms of suggestions for improved S/R implementation. Many patients suggested that nurses ought to use a calming voice, listen to patient concerns with openness and sincerity, keep patients informed of the treatment plan and the rationale for those interventions, allow patients to participate in the decision-making process of their care, and provide meaningful activities for patients (Ezeobele et al., 2014; Kontio et al., 2012; Ling, Cleverly, & Perivolaris, 2015; Mérineau-Côté & Morin, 2014; Soininen et al., 2013; Sutton et al., 2013). These behaviors are major components of the previously mentioned alternative intervention methods, especially in the Safewards Model and the Six Core Strategies Model, both of which focus on patient involvement in care, environmental modification, and nurses' utilization of therapeutic communication strategies. Furthermore, the literature shows that use of these alternative behavioral interventions not only decreased the prevalence of S/R use, but also improved patient satisfaction with care despite use of S/R during their hospital stay (Bowers et al., 2015; Bowers et al., 2012; Godfrey et al., 2014; Guzman-Parra et al., 2016; Lavelle et al., 2016; Sutton et al., 2013). Therefore, it can be concluded that there is a wide variety of alternative interventions to S/R, many of which improve the nurse-patient relationship and decrease occurrence of situations in which a patient poses a threat to self or others.

Predictors of S/R

In addition to considering interventions designed to reduce incidents leading to the need for/use of S/R, it is important to examine these incidents and to consider whether or not the need for S/R use can be predicted. It is crucial to identify if such predictors exist because those predictors can be addressed early on in treatment, and increased implementation of techniques such as de-escalation and sensory modulation can be done for patients at higher risk for needing S/R. According to the literature, the most common reasons for S/R use are agitation and

verbal/physical aggression, both of which can be addressed with behavioral and environmental modification techniques such as sensory modulation, thought/energy redirection, and engaging in therapeutic communication (Jacob et al., 2016; Keski-Valkama et al., 2010, Kontio et al., 2010; Lavelle et al., 2016; Roles, Gouge, & Smith, 2014; Simpson, Joesch, West, & Pasic, 2014). In addition, studies that addressed identifying predictors of S/R use indicated that many patients who were found to have multiple identified 'risk factors' for S/R use at the time of admission were subject to S/R at some point during their hospital stay (Jacob et al., 2016; Lavelle et al., 2016; Roles et al., 2014). None of these studies included implementation of interventions to address these predictors and thus the impact on S/R use. Some of these studies, however, recommend identifying predictors in order to create individualized treatment plans with high-risk patients (Hendryx et al., 2010; Jacob et al., 2016).

Critical Appraisal

While there are many limitations of the studies considered in this review, the consistency of findings among like studies improves the overall reliability and validity of the information presented. The most common and significant limitations of the studies were small sample sizes and frequent lack of control groups in the quantitative studies. Many of the quantitative studies examined the prevalence of S/R after implementation of an intervention on an entire population at the given setting, and compared it to previously recorded rates of S/R use prior to the study. In these instances, the use of a control group in these studies may be considered both impractical and unethical, due to the nature of the interventions and the risks associated with S/R use. In addition, there were several intervention studies considered in this review that were heavily dependent on staff participation and implementation, which can be inconsistent and sometimes unquantifiable. However, although technically many of the studies are considered to be ranked at

a lower level of evidence—especially the qualitative studies—the nature of this review calls for subjective data that is best obtained in this circumstance through interviews and surveys, which was the data collection method in all qualitative studies included in this review.

A significant strength of this review is the variety of settings of the studies included, which, paired with the consistency of findings, suggests that findings are generalizable despite the small sample sizes of several of the included studies. One limitation is the wide variety of interventions tested in these studies. The variety of interventions makes it difficult to precisely determine which methods are most effective at reducing S/R use, and instead merely indicates that there are alternative interventions that, when implemented correctly, reduce the occurrence of S/R. However, as mentioned previously, the consistency of findings despite mild variations in technique and intervention suggest that the reliability of the results of these studies is high. In addition to being highly reliable, these studies were also determined to have high validity. The quantitative studies included in this review clearly demonstrated cause-and-effect data, as there was limited potential for confounding variables due to the nature of the studies, thus indicating that these studies were indeed measuring S/R rates directly related to the intervention programs. The qualitative studies included in this review were all performed using some form of survey or interview, using open-ended questions that were carefully created to keep the focus of responses on S/R experiences. Therefore, it can safely be concluded that the findings of this review and these studies are reliable, valid, and generalizable.

Synthesis and Recommendations

Based on the findings of this review, it appears that currently, S/R use persists as common practice. Specifically, in the studies of staff/patient perception of S/R, it was made clear

that there was no formal intervention program to reduce the need for S/R use, and these nurses were presumably relying on the therapeutic communication techniques taught to them as part of their nursing education (Ezeobele et al., 2014; Keski-Valkama et al., 2010; Kontio et al., 2012; Kontio et al., 2010; Ling, Cleverley, & Perivolaris, 2015; Mérineau-Côté & Morin, 2014; Muir-Cochrane, Baird, & McCann, 2015; Soininen et al., 2013). Furthermore, while best practice guidelines state that S/R is to be used as a last resort intervention only, these findings indicate that S/R is still being used more than evidence warrants is necessary. This may suggest a need for formal policy changes to be implemented and enforced by facility leadership staff, as well as a need for improved continuing education requirements that address S/R reduction techniques. These formal policy changes could include implementing a formal intervention program such as the Safewards model or Six Core Strategies model and providing sensory modulation materials and staff education on using these materials to redirect inappropriate/undesired behaviors, such as verbal/physical aggression, agitation, and destructive behaviors. Formal policy changes should also address alterations in the way S/R is carried out, with attention to the S/R environment, staff interaction with the patient, and the process for mandatory debriefing sessions post-intervention. Involvement of the patient in planning what actions will be taken and ways to reduce escalatory behavior were also frequently suggested by patients in the qualitative studies included in this review. It is recommended that nurses discuss a de-escalation strategy with patients at the time of admission in order to create an individualized, and thus more effective, intervention plan. It may be prudent to examine this process as an intervention in and of itself, and its effectiveness at reducing the need for S/R.

Although the findings of the studies included in this review were consistent despite varying interventions, there is a need for repeat studies with each of the different intervention

programs addressed by the studies in this review. While it has been established that these alternative intervention methods are effective at reducing S/R use (Bowers et al., 2015; Godfrey, McGill, Jones, Oxley, & Carr, 2014; Guzman-Parra et al., 2016), it is important to determine which method is the most effective at doing so, and to reevaluate what should be considered best practice in the actual implementation of this intervention. Specifically, the idea of a new assessment protocol for the duration of the S/R intervention, as well as a debriefing protocol following the intervention ought to be considered. In addition, during the data collection phase of this review no other systematic reviews of literature on this topic were found. It is therefore imperative that further literature reviews are performed in order to strengthen the validity and reliability of the findings and conclusions of this review. Finally, it will be necessary to perform studies evaluating the long-term success of implementing alternative intervention programs, both in terms of S/R reduction as well as improving staff satisfaction with ethical practice and patient trust. In conclusion, the evidence presented in this review supports the need for significant change in the clinical care setting, moving from the current standards of practice to standards that better emphasize the provision of high quality patient centered care.

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Appendix A
Table of Evidence

*****For the purpose of this table, seclusion/restraint will be abbreviated as S/R or S/R

APA formatted reference	Background of clinical problem, purpose statement, research question.	Clinical practice setting. Research population. Sample size, sampling methods.	Design. Level of evidence.	Evidence-based findings	Practice & Research Implications	Limitations
Bowers, L., James, K., Quirk, A., Simpson, A., Stewart, D., & Hodsoll, J. (2015). Reducing conflict and containment rates on acute psychiatric wards: The Safewards cluster randomised controlled trial. *International Journal Of Nursing Studies*, *52*(9), 1412-1422. doi:10.1016/j.	**Background**: "The Safewards model enabled the identification of ten interventions to reduce the frequency of both [conflict and containment]." **Purpose statement**: to test the efficacy of using the Safewards model interventions **Research question**: Is the Safewards model effective in reducing the number of S/R incidents?	**Setting**: 31 psych wards at 15 hospitals within 100 km of central London **Population**: consenting staff members (no data were collected from patients, all research interventions were with staff) **Sampling method**: cluster random **Sample size**: 564	**Design**: cluster randomized controlled trial **Level II** Independent variable/control condition: implementation of a package of interventions directed at improving staff physical health (expected to have no impact on conflict and containment; controller for both researcher attention and participant expectancy) Dependent variable/ experimental	"relative to the control intervention, when conflict events occurred the Safewards intervention reduced the rate of conflict events by 15.0%" "the trial intervention proved to be effective in reducing both conflict and containment"	"we recommend that the Safewards interventions are implemented on adult acute mental health wards, as the findings of this trial are that the gains for patients and staff may be significant" -replicating this study over a longer time period is recommended	-large quantity of missing data -short time period of study—limited degree to which interventions could be implemented -limited observation of degree of implementation -relies heavily on staff participation, which is hard to obtain consistently at time of data collection (end of shift) which

ijnurstu.2015.05.001 Primary source, Quantitative			condition: implementation of the Safewards model interventions			is a busy time for staff
Bowers, L., Ross, J., Nijman, H., Muir-Cochrane, E., Noorthoorn, E., & Stewart, D. (2012). The scope for replacing seclusion with time out in acute inpatient psychiatry in England. *Journal Of Advanced Nursing*, *68*(4), 826-835 10p. doi:10.1111/j.1365-2648.2011.05784.x Quantitative and qualitative	**Background**: "The use of seclusion is unpalatable to nurses and frequently unpleasant for patients. Time out is rated by nurses and patients as more acceptable." **Purpose statement**: to analyze "the order of conflict and containment events for individual patients, with particular attention to time out and seclusion, conducting a comparative evaluation of their	**Setting**: 84 acute psychiatric wards and psychiatric ICUs in 31 hospitals around London, UK between June 2009 and March 2010 **Population**: adult patients in this setting who were "well enough and safe enough to be approached as judged by the ward staff" and gave written informed consent, excluding those who had been hospitalized for less than 2 weeks **Sampling method**: random	**Design**: Retrospective case notes review **Level II** **Variables**: "patients subjected to timeout or seclusion in the first 2 weeks of admission were compared to those who were not." "those who experienced more than one time out or seclusion were compared with those experiencing only one episode"	39 participants were secluded once or more during first 2 weeks of admission; 81 were subject to time out once or more; time out was more likely to be used repeatedly with the same patient; "the most common start to a sequence of events leading to seclusion was aggressive behavior by the patient." "aggression was more prominent as a precursor of time out than for seclusion." Verbal aggression tended to result in time out, while physical	"outcome for the use of seclusion and time out appears to be equally good." -Introduce a reporting system for the use of seclusion in psychiatry -"Some seclusion can be replaced with time out, which is more acceptable to patients"	-all data were drawn from nursing notes, therefore quality and accuracy of data may vary and is subject to error and bias -high number of patients refused consent for participation, leading to unknown bias -short term patients were excluded, limiting generalizability

Primary source	circumstances of use and outcomes" **Research question**: In psychiatric inpatients, how does the use of time out compare to the use of seclusion in terms of managing aggression, and what are the circumstances leading up to the use of this intervention?	**Sample size**: 522		aggression was met with seclusion		
Ezeobele, I. E., Malecha, A. T., Mock, A., Mackey-Godine, A., & Hughes, M. (2014). Patients' lived seclusion experience in acute psychiatric hospital in the United States:	**Background**: "Understanding the patients' seclusion experience will sensitize mental health professionals to be empathetic in their decision making regarding the use of seclusion as an intervention	**Setting:** 250 bed free-standing psychiatric acute care hospital located in the south-western US **Population**: adult patients with psychiatric disorders who were secluded and were oriented, in	**Design**: phenomenological/ descriptive **Level VI** "Data were collected through 3 semi-structured, open-ended questions: (1) What events led to you being secluded? (2) How did you feel while in the	"It was not only the seclusion experience itself that the patient had problems with, but rather the lack of interaction with staff that made the event a negative one." Several major themes emerged: (1) being alone in the world (subthemes:	"Future research is needed to specify the beneficial goals, examine efficacy, and develop reliable and valid measures." "Seclusion may be prevented when professionals implement	Not representative of the general psych population: small sample size, only one facility Does not account for staff perceptions

a qualitative study. *Journal Of Psychiatric & Mental Health Nursing*, *21*(4), 303-312. doi:10.1111/jpm.12097 Qualitative Primary source	for de-escalation during aggressive situations." **Purpose statement**: "To explore and describe the psychiatric patients' lived seclusion experience." **Research question**: How do inpatients of a psychiatric care facility perceive their seclusion experiences, and how does that perception impact their attitude towards their overall healthcare experience?	contact with reality, and gave written informed consent **Sampling methods:** purposive **Sample size**: 20	seclusion room? (3) Tell me how this situation could have been handled differently?" IV: use of seclusion DV: emotional response of the patient to the intervention; staff-patient relationship	rejection and deprivation, being in jail, being destroyed), (2) staff exert power and control (subtheme: lack of compassion from staff), (3) resentment towards staff (subthemes: unresolved anger, staff lacked humility, lack of explanation from staff, need for staff education), (4) time for mediation (subthemes: no memory of event, positive effect)	approved protocols in advance." Recommendations: -be upfront, honest, and open with info -use a positive tone and calm demeanor -provide alternative solutions -use one staff member who the patient trusts to talk to the patient during aggressive situations	
Godfrey, J. L., McGill, A. C., Jones, N. T., Oxley, S. L., & Carr, R. M. (2014). Anatomy of a	**Background**: research has shown that S/R use is not optimal, taking initiatives to reduce use	**Setting**: a 398-bed state psych hospital in North Carolina from September 1, 2009 to July 31, 2012	**Design**: case series **Level VII** IV: implementation of interventions (staff training in	"The findings indicated that after implementing NVCI and the response team…the number of mechanical	"the key is to develop a restraint reduction plan that provides recovery-oriented, trauma-	-no control group—severely limits validity -study must be repeated with a control group

transformation: a systematic effort to reduce mechanical restraints at a state psychiatric hospital. *Psychiatric Services (Washington, D.C.), 65*(10), 1277-1280. doi:10.1176/appi.ps.201300247 Primary Source, quantitative	**Purpose statement**: "to describe the successful reduction of use of mechanical restraints at our state psychiatric hospital" **Research question**: Will policy change and staff education/training in de-escalation techniques reduce the occurrence of S/R use?	**Population**: all persons admitted to a 140-bed acute adult unit (AAU) and a 76-bed community transition unit (CTU) during the study period **Sampling method**: convenience **Sample size**: total: 3244 AAU: 2910 CTU: 334	de-escalation techniques and policy change) DV: rate of mechanical restraint use	restraint incidents was significantly reduced on both service units" "Mechanical restraint use decreased by 98% on AAU and by 100% on CTU" "We learned that committed leadership was essential for developing and implementing such a plan" "Monitoring the performance of the response team and requiring approval for use of mechanical restraint provided a level of accountability for staff actions and encouraged staff to follow the de-escalation principles"	informed care while also minimizing these risks" integral elements to restraint reduction program: "strong support from leadership, formal changes to policy and procedures, staff training, debriefing of consumers, and regular feedback to staff" "The success of this initiative demonstrated that reduction and even elimination of mechanical restraint can be accomplished… without increasing assaults and injuries to consumers or staff"	in place to provide credibility to findings -occurred at one setting, generalizability is limited

Guzman-Parra, J., Aguilera Serrano, C., García-Sánchez, J. A., Pino-Benítez, I., Alba-Vallejo, M., Moreno-Küstner, B., & Mayoral-Cleries, F. (2016). Effectiveness of a multimodal intervention program for restraint prevention in an acute Spanish psychiatric ward. *Journal Of The American Psychiatric Nurses Association*, *22*(3), 233-241. doi:10.1177/1	**Background**: highest reduction rates in S/R have been achieved by using "multimodal strategies," with elements that address crisis prevention and control of disturbed/violent behaviors **Purpose statement**: "The aim of this study was to evaluate the effectiveness of a multimodal intervention program based on the principles of the six core strategies to reduce the frequency of use of mechanical restraint in an acute psychiatric ward." **Research question**: Is this intervention	**Setting**: 42 bed acute psych ward of a university general hospital in an urban area of Spain over a two-year period **Population**: all adult inpatients who were restrained at some point during this study period **Sampling method**: convenience **Sample size**: 158	**Design**: retrospective cohort **Level IV** IV: use of intervention program DV: use or not of restraint during hospital stay * The study provided a level of control for comparative analysis by examining the data on the use of S/R over a one year period prior to implementing the intervention program, and comparing this data to data from a one year period following the implementation of the intervention program	In 2012 (non-intervention year), there were 164 episodes of restraint. In 2013 (implementation year), there were 85 episodes of restraint. The total percentage of restrained patients fell from 15.07% in 2012 to 9.74% in 2013 (a 35.37% decrease). This decrease suggests that the program may have been effective in reducing the need for S/R to prevent and control escalated situations. "With regard to the patients' condition prior to mechanical restraint, in 2013 the percentage of agitated patients increased, while the percentage of	The study should be repeated, preferably over a longer time period, to determine causality. The outcomes of this study suggest that the intervention is more effective for prevention of violent behavior instead of prevention of agitation. "These interventions indicate that organizational changes…improvement in staff training…and improvements in prevention are related to reducing the number of restraining episodes and other measures."	-No control group was included, therefore direct causality of reduction cannot be established -intervention carried out in only one ward -data collected after only one year from the start of intervention

07839031664 4767 Quantitative Primary source	effective in reducing the use of mechanical restraints?			aggressive patients decreased."		
Hallett, N., & Dickens, G. L. (2015). De-escalation: A survey of clinical staff in a secure mental health inpatient service. *International Journal Of Mental Health Nursing*, *24*(4), 324-333. doi:10.1111/inm.12136 Qualitative Primary source	**Background**: "De-escalation is an important tool for preventing aggression in inpatient settings but definitions vary and there is no clear practice guideline." **Purpose statement**: "to identify how clinical staff define and conceptualize de-escalation, which de-escalation interventions they would use in aggressive scenarios, and their beliefs about the efficacy of de-escalation interventions"	**Setting**: St. Andrew's hospital (an inpatient mental healthcare facility) between July 2013 and February 2014 **Population**: ward-based clinical staff who consented to participate **Sampling methods**: purposive **Sample size**: 72	**Design**: Exploratory **Level VI** Study comprised of a 10-item questionnaire containing both open and closed ended questions, as well as several vignettes in which the participant was asked to describe how they would respond to that scenario IV: use of de-escalation DV: perceived efficacy	The definition of de-escalation was identified by three major themes: 1) objectives (aim or intention of de-escalation), involving calming/bringing down the patient or preventing further escalation; 2) interventions (methods to achieve objectives), such as communication, relocation, and distraction; 3) characteristics, which are the idiosyncratic features of the individual and/or situation to be de-escalated. Staff views about de-escalation	Many participants incorrectly identified administration of prn meds as a de-escalation technique. This implies a need for further staff education on appropriate de-escalation strategies, and when to use various interventions. "Communication was cited as being used/ witnessed as a de-escalation intervention by respondents more than any other intervention." "Further	Vignettes have poor external validity, and no further data collection (such as observation of phenomena) was performed to determine the external validity. Vignettes also lack generalizability. Sampling was not random. Results were obtained from a single site, and therefore may have been a reflection of staff training at that facility, rather than a reflection of

	Research question: How do clinical staff define de-escalation, and what interventions do they consider to be de-escalation techniques?			techniques encompassed six major themes: communication, tactics, interpersonal skills, assessment/risk, getting help, and containment measures.	empirical studies are needed to investigate how staff de-escalate in practice, and to identify what constitutes effective de-escalation"	the attitudes and views of the general mental health clinical staff population
Hendryx, M., Trusevich, Y., Coyle, F., Short, R., & Roll, J. (2010). The distribution and frequency of seclusion and/or restraint among psychiatric inpatients. *Journal Of Behavioral Health Services & Research*, *37*(2), 272-281. doi:10.1007/s	**Background**: "interventions to reduce the use of S/R have been shown to be effective." Understanding the reasons for and nature of the events leading up to and during S/R is important for developing a strategy to reduce the use of S/R **Purpose statement**: "to provide a current description of the distribution of the	**Setting**: 274 bed adult state psychiatric hospital in eastern Washington State in the calendar year 2004 **Population**: all adult inpatients who experienced S/R at some point during their stay at the hospital **Sampling methods**: convenience **Sample size**: 194	**Design**: retrospective review **Level IV** "[Data analysis] included a summary of number and percentage of patients who experienced a S/R episode, as well as the duration of each episode in hours" "Analysis included date of the following variables measured at the patient level:	194 patients experienced on or more episodes of S/R (15% of the patients treated that year). The distribution of S/R events was concentrated among a relatively small number of patients who experienced repeated episodes	"instead of relying on aggregate predictors, the limitations of the regression models suggest that individualized intervention approaches should be developed both on a case to case basis and across the entire landscape of hospital policies and procedures." It may be beneficial to develop	Study occurred in only one hospital; not necessarily generalizable; study does not include specifics of the nature of S/R events

11414-009-9191-1 Quantitative Primary	concentration of S/R episodes over a population of adult psychiatric patients." **Research question**: Are the majority of episodes concentrated in a small percentage of patients with S/R use?		type of event (seclusion or restraint), clock time and date of event, treatment unit, sex, age, race/ethnicity, primary diagnosis, length of hospital stay in days, and length of event in hours		individualized intervention plans and modifying the environment to reduce triggers for specific high-risk patients to reduce the number of S/R events	
Jacob, T., Sahu, G., Frankel, V., Homel, P., Berman, B., & McAfee, S. (2016). Patterns of restraint utilization in a community hospital's psychiatric inpatient units. *Psychiatric Quarterly*, *87*(1), 31-48.	**Background**: "not many alternatives [to S/R use] available when it comes to protecting the safety of violent patients and those around them" **Purpose statement**: "to examine patterns of restraint use and analyze the factors leading to its use in adult	**Setting**: two psychiatry inpatient units at Maimonides Medical Center in NYC between January 2007 and December 2012 **Population**: restraint order sheets of all patients admitted to these units in this time frame, excluding those in which restraint episodes	**Design**: retrospective review **Level of Evidence**: IV IV: patient characteristics, reason for restraint use, use of verbal redirection DV: degree of restraint use, number of restraint episodes Demographic info and the following	"duration of restraint episodes for male patients was longer than that for female patients" "there were more restraint episodes in the evening shift as compared to the day shift" "every single restraint sheet we reviewed showed aggression as the cause leading to the episode"	"since aggression is the foremost cause of ordering restraints for a patient…an individualized treatment plan based on the physiologic, psychosocial, behavioral, and environmental needs of the patient may serve to reduce many of the patients' trigger	-several factors (such as LOS, pt dx, voluntary/involuntary admission status, ethnicity, substance abuse hx, staff availability) were not assessed -in terms of medication administration, type of medication, elapsed time

Primary source Quantitative	psychiatric inpatient units" **Research question**: In adult psychiatric inpatient units, what factors lead to the use of S/R, and are there patterns of use that suggest certain patient characteristics indicate different circumstances of use?	were used as a fall precaution **Sampling method**: convenience **Sample size:** 1753 (restraint order sheets)	variables were recorded: number of restraint episodes per patient, the cause for restraint order, use of verbal redirection as a less restrictive measure before ordering restraints, time and duration, medications		points of aggression" "Despite the safety risk in using [S/R], there are no randomized controlled studies comparing alternative methods of reducing violence in inpatient settings."	between admin and episode, and under reporting of use were not accounted for
Keski-Valkama, A., Sailas, E., Eronen, M., Koivisto, A., Lönnqvist, J., & Kaltiala-Heino, R. (2010). The reasons for using restraint and seclusion in psychiatric inpatient care: A nationwide 15-year study.	**Background**: "the containment or the prevention of actual violence is the primary justification for the use of [S/R] in psychiatry" **Purpose statement**: "The aim of the present study was to determine the grounds for using [S/R] in	**Setting**: Finnish psychiatric hospitals during a specific week in December of 1990, 1991, 1994, 1998, and 2004 **Population**: hospital employees working on wards that use S/R for working-aged patients	**Design**: descriptive (survey/ questionnaire) **Level VI** IV: legislative changes, reasons for restraint utilization DV: S/R use "the reason for using [S/R] was recorded by the staff on the survey form." These reasons	"the most common reason for using [S/R] was agitation/disorientation, followed by actual violence…" "differences were found regarding the reasons for [S/R] both before and after the revision of the Mental Health Act…aggression/dangerousness appeared more	"[the aim] of the reformed Finnish Mental Health Act in 2002 was to clarify and standardize [S/R] practices, and confine them primarily to violent situations. However, the intended aim was not reached in everyday practice…"	Collection of data was carried out during only one week per year ("absolute certainty of its representativeness is hard to achieve") -this study only accounted for legislative changes in a single country (future

Nordic Journal Of Psychiatry, *64*(2), 136-144. doi:10.3109/08039480903274449 Primary source Qualitative	clinical practice in Finland, and whether these reasons have changed over a 15-year period as a result of legislative changes" **Research question**: In staff members of psychiatric hospitals, what are considered to be implications for S/R use, and have these implications changed over time related to legislative changes?	who completed the survey **Sampling method**: purposive **Sample size**: 668 (number of episodes used in final statistical analyses)	were sorted into 6 categories using a pre-existing Finnish classification system (actual violence, threatening violence, damaging/ threatening to damage property, agitation/ disorientation, aggression/ dangerousness, unclassified)	frequently after the revised Act" "the present study found that legislation on [S/R] is still open to various understandings, and even to subjective interpretations"	"this…highlights how slowly clinical practice follows changes in legislation." "Further study is needed concerning the duration of [S/R], especially because significant difference in the duration of [S/R] have been found among different countries."	research in other nations is necessary to compare policy adoption practices)
Kontio, R., Joffe, G., Putkonen, H., Kuosmanen, L., Hane, K., Holi, M., & Välimäki, M. (2012). Seclusion and Restraint in	**Background**: a qualitative study of patients' experiences with the use of seclusion and restraints in psychiatric setting	**Setting**:6 acute closed wards in 2 psychiatric hospitals in Southern Finland **Population**: 18-65 yr old pts who were restrained/	**Design**: descriptive **Level of Evidence**: VI IV: use of S/R DV: patients' attitudes of experience	"Patients reported mainly that they did not get enough information about their situation, treatment and plans, what would happen next, and the reason for S/R" -pts dissatisfied	Pts proposed an external evaluator with whom to talk about their S/R experience after it occurred. Very inconsistent reports of the way pts were	Setting not representative of general psychiatric inpatient population; small sample size; participants selected based

Psychiatry: Patients' Experiences and Practical Suggestions on How to Improve Practices and Use Alternatives. *Perspectives In Psychiatric Care*, *48*(1), 16-24 9p. doi:10.1111/j.1744-6163.2010.00301.x Primary source: patient interview Qualitative	**Purpose Statement:** "This study explored psychiatric inpatients' experiences of, and their suggestions for improvement of, S/R, and alternatives to their use in Finland" **Research question**: Three standard open-ended interview questions to generate a description of the pt's latest S/R event, suggestions to reduce use, and suggestions for alternatives	secluded at some point during the study period who were able to speak Finnish and give informed consent, and who were assessed to be able to reasonably communicate **Sampling method:** purposive **Sample size**: 30	Data were collected by asking the following questions: (a) "Can you describe your latest S/R experience, what was it like?" (b) "What kind of suggestions do you have on how to reduce the use and improve practices of S/R?" (c) "What kind of alternatives would you prefer instead?"	with the way staff treated them during restraint (how they were cared for, spoken to) -pts described problems with ability to tend to their basic needs—no access to toilet, no opportunity to bathe, brush teeth, nothing to do -described feelings of anger, fear, loneliness, safety -inconsistent debriefing	treated during S/R—recommend specific and legal guidelines/standards for treatment during these periods should be put in place and enforced to create a more "patient friendly environment" Pts should be given more information about why and how long they will be in S/R Suggested alternatives centered on preventing escalated episodes	on care provider's assessment of ability—some pts may have been purposefully excluded; researchers did not witness episodes of S/R—recall bias
Kontio, R., Välimäki, M., Putkonen, H., Kuosmanen, L., Scott, A.,	**Background**: using S/R proposes an ethical dilemma to mental health	**Setting**: 6 acute closed adult wards practicing S/R in 2 psychiatric	**Design**: Descriptive **Level of evidence**: VI	Management of pts' aggressive behavior was described as a decision-making	Alternative suggestions fell into 3 categories: (1) nursing interventions, (2)	Very small sample size, not representative of other

& Joffe, G. (2010). Patient restrictions: Are there ethical alternatives to seclusion and restraint? *Nursing Ethics, 17*(1), 65-76. Primary source: interviews and content analysis Qualitative	care staff; "legal, ethical, and clinical issues related to professional identity and the role of the therapeutic relationship call for exploration, development, and implementation of alternative ways to treat aggressive behavior" **Purpose statement**: "The present study was set up to explore the ethical aspects of nurses' and physicians' perceptions of: (1) what actually happens when an aggressive behavior episode occurs on a ward, and (2) what alternatives	hospitals in Southern Finland **Population**: registered nurses and physicians who gave informed voluntary consent and who have experience in using S/R **Sampling method**: purposive **Sample size**: 27 (4 focus groups comprising 3 groups of nurses (total n=22) and one group of physicians (n=5))	This study used focus group interviews to encourage the natural spontaneity of peer-group discussions Participants were randomly assigned to a focus group, except for the physicians, who were all in one focus group	process occurring before, during, and after an S/R event Before: everything happens quickly, not a lot of time to weigh other alternatives During: "nurses spend a lot of time with pts who are secluded or restrained and continuously evaluate these pts' conditions." Not a lot of time to give to other pts; goal is to try to keep other pts calm; cooperation among staff is essential After: "oral and written reporting after the situation is useful. Then we evaluate what helped the pt and what else we can try next time" -noted that debriefing is a	multiprofessiona l agreements involving the pt, (3) use of authority and power -be present, converse with pts to promote comfort, safety, trust; gives insight on pt status -provide meaningful activities for pts to prevent restlessness and frustration which trigger escalations -maintain therapeutic environment; provide a quiet room with minimal stimuli to de-escalate in -allow pt to be an active participant in agreement on the course of	psychiatric facilities; high potential for group bias (members of the group tend to agree with each other); does not account for patient perspective

	to seclusion and restraint are in use as normal standard practice in acute psychiatric care			useful learning experience	treatment; compromise on an plan in case of escalation	
Lavelle, M., Stewart, D., James, K., Richardson, M., Renwick, L., Brennan, G., & Bowers, L. (2016). Predictors of effective de-escalation in acute inpatient psychiatric settings. *Journal Of Clinical Nursing*, *25*(15-16), 2180-2188. doi:10.1111/jocn.13239 Primary source, quantitative	**Background**: little is known about the effectiveness of use of de-escalation to manage aggression **Purpose statement**: "to explore the factors that influence the use of de-escalation and its success in halting conflict in acute psychiatric inpatient setting" **Research question**: What are the predictors of de-escalation use, and what factors indicate potential success	**Setting**: acute psychiatric wards and PICUs across 31 randomly selected hospitals in London between July 2009 and March 2010 **Population**: adult psychiatric inpatients who had been hospitalized for more than 2 weeks **Sampling method**: stratified random **Sample size**: 522	**Design**: retrospective case note review **Level II** IV: predictors of de-escalation occurrence DV: effectiveness of de-escalation	"61% [of de-escalation sequences] were categorized as successful, ending after de-escalation occurred" verbal aggression was both the most frequent precursor and beginning of successful de-escalation events "successful de-escalation sequences had fewer precursors than unsuccessful sequences" "younger patients, and those with a history of violence, were more likely to experience de-escalation" "When implemented, de-	"de-escalation is most effective when implemented early in the sequence of conflict and containment events" "nurses' ability to notice the start of a conflict sequence [is a] critical determinant of aggression management" "there is an urgent need to conduct high-quality empirical research to identify the de-escalation skills that are most effective in reducing conflict	-de-escalation is a broad, ill-defined term that encompasses certain aspects of care that may not necessarily be considered a formal technique by nurses, and thus may be omitted from nurses' notes -retrospective analysis of consenting patients may not provide an "accurate picture of clinical reality"

	or failure of de-escalation use?			escalation was successful in ending the sequence of conflict or containment in the majority of cases"	in psychiatric settings"	
Ling, S., Cleverley, K., & Perivolaris, A. (2015). Understanding mental health service user experiences of restraint through debriefing: A qualitative analysis. *Canadian Journal Of Psychiatry*, *60*(9), 386-392. Primary source Qualitative	**Background**: "in an increasingly complex care environment, with rising inpatient acuity, it is essential to learn from inpatient debriefing and use restraint prevention strategies" **Purpose statement:** "to examine debriefing data to understand experiences before, during, and after a restraint event from the perspective of inpatients"	**Setting**: The Centre for Addiction and Mental Health (CAMH) from September 2009 to February 2013 **Population**: adult inpatients at CAMH who voluntarily completed the Restraint Event Client-Patient Debriefing and Comments Form **Sampling method**: purposive **Sample size:** 55	**Design**: Descriptive **Level of evidence**: VI IV: use of S/R, debriefing post-S/R use DV: patient perception of events Qualitative analysis of data using a debriefing and comments form given to patients after the restraint event Results describe the inpatient's perspective of what occurred before, during,	"inpatients frequently stated that they felt angry, usually secondary to lost autonomy, interpersonal tension, and unmet needs," which presented itself as aggression, thus leading to a restraint event "the vast majority of inpatients experienced restraint as negative, and found that it evoked fear, feelings of rejection, and desire for comfort" "most respondents found that restraint was a negative	"owing to the frequency of inpatient frustration about lost autonomy, it would be beneficial for clinicians to preemptively manage these concerns by having regular conversations with inpatients about safety, ensuring compromise and choice as much as possible, and providing validation" "sensory and comfort interventions should be used preemptively to	- "the Restraint Event Client-Patient Debriefing and Comments Form does not ask inpatients to specify whether they were secluded, physically restrained, or chemically restrained" -"the information provided in our study is biased toward the inpatients who were well enough to focus on completing the form and who were also

	Research question: In service users of mental health centers, what is the perception of the use of S/R, and how might debriefing impact patients' overall attitude towards their hospital stay?		and after restraint	experience, which evoked negative feelings and damaged relations with staff"	avoid restraint… [and to] decrease inpatient distress while experiencing restraint" "inpatients [may] benefit from or desire opportunities to debrief the restraint event, which can serve as an opportunity to regain trust"	motivated to do so"
Mérineau-Côté, J., & Morin, D. (2014). Restraint and seclusion: The perspective of service users and staff members. *Journal Of Applied Research In Intellectual Disabilities*, *27*(5), 447-457.	**Background**: "restrictive measures may have important physical and psychological consequences on all persons involved" **Purpose statement**: "the current study seeks to identify how service users with intellectual disabilities and staff perceive the	**Setting**: three rehabilitation centers in Quebec **Population**: adults with intellectual disabilities who had received services from one of the three rehab centers and who had experienced at least one intervention involving restraint or	**Design**: descriptive (interview) **Level of Evidence:** VI IV: use of restrictive measures DV: service users' attitudes towards use of restrictive measures Service users were asked 10 questions regarding use of restrictive	3 major themes from interviews: alternative interventions could have been used, impact of intervention on staff-patient relationship, support received by staff members after use of restrictive measure -negative impact on relationship: user feels punished, loses	Important to have a de-briefing session following the event; provides opportunity for both patient and provider to discuss feelings from event, which may prevent further negative consequences. Debriefing also helps patient understand goal	Small sample size, only female care providers, not generalizable -interview method with this population may not be highly reliable/valid (communication and cognitive deficits) -social desirability: say what you think they

doi:10.1111/jar.12069 Primary source Qualitative	use of restrictive measures" **Research question**: How do service users with intellectual disabilities perceive the use of restrictive measures, and what impact does this intervention have on the relationship between staff and patients?	seclusion during the previous month (service user sample). Female support workers working with people with intellectual disability who were willing to participate (staff sample) **Sampling method**: purposive **Sample size**: 16 (8 service user, 8 staff)	measures, the effects of the intervention, emotions experienced before/during/ after the event, possible alternatives, and perceived impact on relationship with care provider. Staff were asked 16 questions that were similar in context to the questions asked of service users.	trust, angry with care provider -positive impact: allows provider to safely interact with aggressive patient -use of restrictive measures often evokes feelings of guilt/shame in providers "three staff members reported that these measures would be used less often if more resources were available"	of restrictive measure.	want you to say
Muir-Cochrane, E.C., Baird, J., & McCann, T. V. (2015). Nurses' experiences of restraint and seclusion use in short-stay acute old age psychiatry inpatient	**Background**: there is a lack of studies regarding nurses' attitudes towards use of S/R, and understanding these attitudes is key to influencing the adoption of new strategies **Purpose statement**: "to	**Setting**: 3 old age psychiatry inpatient units in Melbourne, Australia **Population**: nurses from these units who gave consent and who did not work solely at night and/or weekends	**Design**: Interpretative phenomenological analysis (IPA). "[This study] is part of a larger mixed methods study exploring clinical staffs' attitudes towards aggression in old age psychiatry" **Level of Evidence**: VI	-Lack of accessible alternatives to S/R was overarching theme -3 related themes: "adverse interpersonal environment contributing to use of [S/R], an unfavorable physical environment contributing to	-findings suggest "a lack of understanding of, and education about, effective alternatives to [S/R], and a lack of consideration of ethical issues surrounding these practices" -first theme (interpersonal environment)	"generalizability is not obtained from sample representative-ness, but from themes that are applicable in similar situations"

units: A qualitative study. *Journal Of Psychiatric & Mental Health Nursing*, *22*(2), 109-113. doi:10.1111/jpm.12189 Primary source Qualitative	understand nurses' experiences of [S/R] …and how these experiences underpin resistance to eliminate these practices" **Research question**: What are nurses' attitudes regarding the use of S/R, and how do these attitudes impact attempts to eliminate its use in the clinical setting?	**Sampling method**: purposive **Sample size**: 39	IV: nurses' experiences of S/R use DV: nurses' attitudes towards S/R use Nurses were asked several open-ended questions relating to nurses' experiences about the use of S/R, "and responses were probed"	aggression and [S/R] use, and the practice environment influencing the adoption of [S/R] -"within this [last-resort] framework, the nurses generally believed they were using these measures appropriately and that no changes to their practice were needed"	"emphasizes importance of good staff-to-patient behaviors and communication" -second theme (physical environment) addresses influence of poor unit design contributing to aggression -third theme (practice environment) addresses poor policy, esp. with staff-to-patient ratios	
Roles, S., Gouge, A., & Smith, H. (2014). Predicting risk of seclusion and restraint in a Psychiatric Intensive Care (PIC) unit. *Journal of*	**Background**: restraint reduction to increase positive pt outcomes, increase positive system outcomes, assess risk of violence, opportunity to intervene and potentially	**Setting**: The Psychiatric Intensive Care Unit (PIC Unit) at Health Sciences North (formerly Sudbury Regional Hospital) in Ontario, Canada	**Design**: open cohort **Level of evidence**: IV Control group/IV: no S/R during the admission (n=146), use of RAI-MH Experimental group/DV: any	The RAI-MH correctly classified 82.6% of all admissions to the PIC unit; each of the 6 factors on the assessment used for classification were determined to be statistically significant; the model is well fit to	Could be implemented to help guide nursing assessments, aid in decision making about patient care approaches, and facilitate implementation	Small sample size, not homogeneous (not generalizable or representative)

Psychiatric & Mental Health Nursing, *21*(5), 466-470 5p. doi:10.1111/jpm.12152 Primary Source Quantitative	decrease violence and use of S/R **Purpose statement**: "the purpose of this study was to examine the effectiveness of various factors within the RAI-MH (Resident Assessment Instrument – Mental Health) in predicting actual seclusion and restraint events **Research question**: In the PIC unit, how effective is the RAI-MH at predicting S/R events?	**Population**: male and female pts over the age of 18 requiring intensive levels of psychiatric care in a more secure environment from July to December 2010 **Sampling methods**: heterogeneous convenience sample **Sample size**: 204	type of S/R intervention during admission (n=58)	the data; moderate level of discriminatory power indicates potential utility of this scale as a clinical risk assessment tool	of early interventions	
Simpson, S. A., Joesch, J. M., West, I. I., & Pasic, J. (2014). Risk for physical	**Background**: "physical S/R pose substantial psychological and physical risk."	**Setting**: PES at an academically affiliated urban safety-net hospital in Seattle, WA	**Design**: open cohort **Level of evidence**: IV IV: risk factors DV: use of S/R	746 encounters (out of 5335—14%) resulted in S/R in the PES; "the risk of S/R was more strongly	"this work supports recent clinical guidelines emphasizing the importance of	-While sample size is large, the policies, procedures, and protocols at this PES unit

restraint or seclusion in the Psychiatric Emergency Service (PES). *General Hospital Psychiatry*, *36*(1), 113-118 6p. doi:10.1016/j.genhosppsych.2013.09.009 Primary source: retrospective review Quantitative	"Identifying at-risk pts may allow early, focused treatment to avert the need for restraint or seclusion." **Purpose statement**: "We describe risk factors associated with pts experiencing physical S/R in the Psychiatric Emergency Service (PES)" "Our goal is to describe pt and visit characteristics that increase the risk for physical S/R while in the PES" **Research question**: In patients using Psychiatric Emergency Services, which characteristics of	**Population**: all pts seen at the PES between 6/1/11 and 5/31/12 who were there on an acute stay visit ('non-boarders') **Sampling method**: convenience **Sample size**: 5335 (number of pt encounters; 3669 unique pts)		associated with clinical characteristics particular to the pt encounter than demographic or diagnostic characteristics" "Most measures associated with elevated S/R risk reflected circumstances of arrival" -pts with missing data, which was charted as "unknown," were more likely to be restrained**	the pt interaction and observed symptomatology in assessment of agitation" -sensitize hospital staff to signs of behavioral decompensation allowing them to sooner employ de-escalating strategies	differ significantly from other PES units ("generalizability of these findings from a large PES in an urban safety net hospital in a state with an unusual process for initiating involuntary hospitalization") -potential for recall bias by providers charting notes after S/R event has already occurred -** "unknown" was next to "severe" on the assessment scale—possible frequent mis-categorization

	both patients and visit circumstances indicate an increased risk for S/R events?					
Soininen, P., Välimäki, M., Noda, T., Puukka, P., Korkeila, J., Joffe, G., & Putkonen, H. (2013). Secluded and restrained patients' perceptions of their treatment. *International Journal Of Mental Health Nursing*, *22*(1), 47-55 9p. doi:10.1111/j.1447-0349.2012.00838.x Qualitative Primary Source	**Background**: "little is known about how [S/R] patients perceive their overall treatment." **Purpose statement**: "to explore patients' perceptions of their hospital treatment measured after S/R" **Research questions**: "What are the patients' perceptions of cooperation with staff?" "What are the patients' perceptions of S/R?" "Are there any associations of basic background	**Setting**: three hospitals in southern Finland (3 acute psych wards in a city hospital (hospital A), 2 forensic wards in a rural psych hospital (hospital B), 1 ward for difficult-to-treat patients at a university hospital (hospital C), emergency ward in hospital A during 2009) **Population**: adult inpatients (18-65 y/o) who experienced S/R during current stay who gave consent	**Design**: descriptive (questionnaire) **Level VI** IV: use of S/R DV: patients' perceptions of hospital treatment Patients were given a questionnaire using a Visual Analog Scale, and were instructed to mark their position (from strongly disagree to strongly agree) in reference to 11 questions/ statements	"Overall, patients' perceptions of cooperation with staff fell in the midpoint of the subscale." Lowest scores for whole questionnaire (strongly disagree) were in response to: "Was it necessary for you to be restrained and/or secluded?" "Patients' age and hospital were found to be significantly associated with their perceptions during their hospital stay…the older the patients were, the less satisfied they were with S/R use" "We found that patients	"if the measures were decided on together, patients might be more satisfied [with care]" "The crucial question is: how to allow patients to participate in preparations for threatening situations? How do patients want to be treated at such times?" "Was it a question of patients being treated indifferently, or was it that, despite nurses' suggestions, the physician did not consider the patients'	- "almost 50% of the secluded or restrained patients did not get the opportunity to participate" - generalizability is limited because of small sample size and differing practices among countries

	variables... with patients' perceptions of treatment, cooperation, and perceptions of S/R?"	**Sampling method**: purposive **Sample size**: 90		were unsatisfied with their overall treatment following S/R" "The results of the present study suggest that patients' opinions were not included in treatment planning"	opinions, or were the patients' wishes not considered at all in the process of decision making? Further studies are needed."	
Sutton, D., Wilson, M., Van Kessel, K., & Vanderpyl, J. (2013). Optimizing arousal to manage aggression: A pilot study of sensory modulation. *International Journal Of Mental Health Nursing*, *22*(6), 500-511 12p. doi:10.1111/inm.12010	**Background**: "the relationship between sensory input and emotional regulation has not been fully established in mental health-care practice" **Purpose statement**: "to examine the potential of using sensory-based approaches to develop the theory and practice of preventing, minimizing, and	**Setting**: four inpatient mental health units in New Zealand **Population**: staff and service users at this setting who experienced the intervention and gave consent to participate **Sampling method**: purposive **Sample size**: 60 (?) (40 clinical staff, 20 service users)	**Design**: Inductive, qualitative study using focus groups and interviews **Level VI** IV: use of sensory modulation DV: level of prevention, minimization, and management of aggression 2 phases of research: first phase focused on initial experiences of the	Three themes emerged: "(i) facilitating a calm state, (ii) enhancing interpersonal connection; and (iii) supporting self-management" "Distraction through strong sensory input was a significant factor in reducing agitation" "Participants also commented on the importance of experiencing a 'sense of safety and control' for inducing a calm	"'It should absolutely be something that's available, because I think that it helped me get the behaviors under control as much as anything and had I not…it could have been a lot worse.' (SU2, site 4)" "Sensory modulation [has] the potential to broaden the focus of de-escalation practices and better support recovery"	-pilot study: must be replicated for validity -sample size is unclearly specified; presumed sample size (indicated by a table in the publication) is small—low generalizability -controlled trials are needed to establish empirical link between

Primary source, Qualitative	managing aggression in mental health settings." **Research question**: In staff and service users, how does the use of sensory modulation impact the prevention, minimization, and management of aggression in mental health settings?		implementation of the sensory modulation rooms. Second phase focused on how intervention had evolved in the units	state" "Participants suggested that the impact was not long term, but long enough to enable engagement in something more restful, constructive, or therapeutic." "the practical nature of the approach enabled service users to be proactive in calming themselves."	"overall, there were enough general reports of success and specific exemplars in the qualitative findings to indicate that sensory modulation intervention supported de-escalation of arousal or regulation of emotion in the majority of people who used it"	intervention and outcome -"further research would benefit from coupling the intervention with the routine application of a validated tool for identifying the likelihood of potential aggression"
Wieman, D. A., Camacho-Gonsalves, T., Huckshorn, K. A., & Leff, S. (2014). Multisite study of an evidence-based practice to reduce seclusion and restraint in	**Background**: the 6 core strategies model is a quality improvement measure to reduce S/R use in psychiatric care facilities **Purpose statement**: to "examine implementation	**Setting**: 43 inpatient psychiatric facilities in 8 states over a period of 4 years **Population**: facilities that received grants from the Substance Abuse and Mental Health Services	**Design**: quasi-experimental **Level III** IV: facility and patient characteristics, implementation of 6CS model DV: fidelity ("the extent to which delivery of an intervention	-facilities that continued to implement changes, adding components, and maintaining adherence to the changes showed the greatest reduction in the percentage of patients secluded	-fidelity and sustainability are important factors to consider when performing intervention studies, as fidelity appears to decline over time "even successfully implemented	-lack of a formal control group -lacks randomization -does not address barriers to implementatio n

psychiatric inpatient facilities. *Psychiatric Services*, *65*(3), 345-351. doi:10.1176/appi.ps.201300210 Primary source, quantitative	and outcomes of the Six Core Strategies for Reduction of Seclusion and Restraint (6CS)" **Research question**: In terms of fidelity and sustainability, how will the implementation of the 6CS model, compared to standard care, impact the use of S/R in inpatient psychiatric care facilities?	Administration to implement the 6CS model, and staff at these facilities **Sampling method**: purposive **Sample size**: 43	adheres to the protocol or program model originally developed"), sustainability ("the extent to which a newly implemented treatment is maintained or institutionalized within a service setting's ongoing, stable operations"), rates of S/R	-facilities that reached at least stable implementation rates (implement, slight decline, plateau above implementation threshold) showed reduced percentages of S/R use, S/R duration -fidelity and sustainability at different facilities correlated with actual reduction of S/R use	evidence-based and innovative programs may fail to be sustained for a variety of reasons" "further research is required to understand the relative effectiveness of specific strategies" -the 6CS model is a feasible approach to S/R reduction	