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Seit > 5 Jahren nicht aktualisiert, Leitlinie wird zur Zeit überarbeitet

S3-Leitlinie „Verhinderung von Zwang: Prävention und Therapie aggressiven Verhaltens bei Erwachsenen“

(Leitlinienreport – Fassung vom 10.09.2018)

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Herausgebende Fachgesellschaft:
Deutsche Gesellschaft für Psychiatrie und Psychotherapie, Psychosomatik und Nervenheilkunde e. V. (DGPPN)

Steuerungsgruppe:

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Leitlinienreport

1. Geltungsbereich und Zweck

Begründung für die Auswahl des Leitlinienthemas

Aggressives Verhalten ist ein im Zusammenhang mit psychischen Erkrankungen im Vergleich zur Allgemeinbevölkerung gehäuft auftretendes Phänomen (Fazel et al. 2009a, Witt et al. 2013). Angesichts der Tatsache, dass der Beginn der Psychiatrie in den Geschichtsbüchern auf die Befreiung der Geisteskranken in der Pariser Salpétrière aus ihren Ketten datiert wird, ist der Umgang mit Gewalt und Zwang wohl das älteste Problem psychiatrischer Institutionen. Während dies über lange Zeit weitgehend tabuisiert wurde, steht heute der Anspruch der psychisch erkrankten Menschenauf eine bestmögliche Versorgung unter den Aspekten sowohl der Sicherheit als auch der Menschenwürde und Überlegungen der Sicherheit für die Beschäftigten im Gesundheitswesen im Vordergrund. Damit wird der Umgang mit Aggressivität und Zwang heutzutage zu einem wichtigen Aspekt der Behandlungsqualität. Diese Herausforderung wird zeitgemäß mit der Erstellung von Leitlinien und deren Implementierung in die klinische Praxis angenommen. 2005 publizierte das britische National Institute of Clinical Excellence (NICE) nach umfangreichen Vorarbeiten die "Clinical Practice Guidelines for Violence: The short term management of disturbed/violent behaviour in psychiatric in-patient settings and emergency departments" unter Beteiligung von psychisch erkrankten Menschen, deren Angehörigen und zahlreichen professionellen Gruppen. Im Jahre 2015 erschien eine Aktualisierung dieser Leitlinie (NICE 2015). Andere Behandlungsleitlinien vergleichbaren Umfangs liegen bisher nicht vor. Die hier vorliegende S3-Leitlinie wurde im Auftrag der Deutsche Gesellschaft für Psychiatrie und Psychotherapie, Psychosomatik und Nervenheilkunde erstellt und stellt eine Aktualisierung und Erweiterung der im Jahre 2010 erschienen S2-Leitlinie „Therapeutische Maßnahmen bei aggressivem Verhalten“ dar.

Zielorientierung der Leitlinie

Diese Leitlinie soll den Professionellen in Kliniken und gemeindepsychiatrischen Institutionen, den psychisch erkrankten Menschen und ihren Angehörigen gleichermaßen einen Überblick über den gegenwärtigen Stand des Wissens und eine gute klinische Praxis vermitteln. Letztere leitet sich einerseits aus den wissenschaftlichen Erkenntnissen, andererseits aus ethischen Überlegungen und den gesetzlichen Bestimmungen ab. Im Hinblick auf die unterschiedlichen Zielgruppen wurde versucht, eine möglichst allgemeinverständliche Sprache zu benutzen und unnötigen Einsatz von Fachterminologie zu vermeiden. Ein Ziel aller Leitlinien ist die Implementierung in die klinische Praxis und damit auch die Verbesserung dieser Praxis.

Ziele der Leitlinie

Ziel dieser Behandlungsleitlinie ist es, Empfehlungen zu Diagnose und Therapie von aggressivem Verhalten auf der Basis aktueller wissenschaftlicher Erkenntnisse und guter

Versorgungspraxis zur Verfügung zu stellen. Es soll damit die Grundlage geschaffen werden, Zwangsmaßnahmen und Zwangsunterbringungen zu reduzieren oder zu vermeiden. Falls deren Anwendung unumgänglich ist, ist die Menschenwürde zu wahren und Rechtssicherheit zu gewährleisten. Interventionen sind so kurz und so wenig eingreifend wie möglich zu halten und psychische oder physische Traumata zu vermeiden.

Den Mitarbeitenden der Leitliniengruppe war bei der Erarbeitung der Leitlinie bewusst, dass dieses Thema in der Öffentlichkeit, aber auch innerhalb der Psychiatrie außerordentlich kontrovers diskutiert wird. Sowohl die Psychiatrie-Erfahrenen selbst als auch deren Angehörige, politisch Verantwortliche auf verschiedenen Ebenen (CPT, Antwort der Bundesregierung 2005, Gesundheitsministerkonferenz 2007), die Vertreter verschiedener Medien kritisieren z. T. konstruktiv und fundiert, z. T. polemisch und wenig faktenorientiert, die in der psychiatrischen Versorgung tätigen Professionellen und die von ihnen praktizierten (Zwangs-)Behandlungen. Die vorliegende Leitlinie fasst das aktuell verfügbare, wissenschaftlich gesicherte Wissen zum Thema „Umgang mit aggressivem Verhalten in der Psychiatrie“ in verschiedene Evidenzgrade eingeteilt zusammen. Es sollte berücksichtigt werden, dass aus dieser Leitlinie abgeleitete Empfehlungen stets im Einzelfall zu überprüfen sind. Eine individuelle Behandlung, möglichst im Konsens mit dem Betroffenen, ist erstrebenswert. Beim Thema „Aggressives Verhalten“ sind Auslöser, Ursachen und Interaktionen komplex ineinander verwoben. Nicht nur psychisch erkrankte Menschen können sich aggressiv verhalten, auch psychiatrische Einrichtungen können im Sinne sog. „institutionelle Gewalt“ Zwang ausüben und Aggressionen hervorrufen. Auch kann es vorkommen, dass sich Mitarbeitende sowie Angehörige z. B. verbal aggressiv verhalten.

Patientenzielgruppe

In der Leitlinie soll es um die Behandlung erwachsener Menschen vom 18. Lebensjahr mit psychischen Erkrankungen (Erkrankungen aus dem Kapitel F der ICD-10) gehen, die im Rahmen ihrer Erkrankung aggressiv oder gewalttätig werden oder die von Zwangsmaßnahmen betroffen werden. Die Situation bei Kindern und Jugendlichen wird in der Leitlinie nicht berücksichtigt. Die Leitlinie berücksichtigt verschiedene psychiatrische Settings (ambulant, teilstationär und stationär). Der Schwerpunkt liegt auf der Behandlung psychisch erkrankter Menschen außerhalb des Maßregelvollzugs. Wo Erkenntnisse aus forensischen Populationen hierfür relevant sind, werden sie aufgeführt.

Versorgungsbereich

Die Problematik aggressiven Verhaltens ebenso wie die der Zwangsmaßnahmen betrifft in erster Linie psychiatrische Krankenhäuser. Mit zunehmender Deinstitutionalisierung ist aber immer deutlicher geworden, dass Krankenhausbehandlung nur einen vergleichsweise kleinen Ausschnitt der psychiatrischen Versorgung darstellt, die heute überwiegend als Gemeindepsychiatrie stattfindet. Demzufolge ist die Problematik des Umgangs mit Aggression und Gewalt genauso wie die sog. "institutionelle Gewalt" immer weniger auf Krankenhäuser beschränkt, sondern auch in sonstigen gemeindepsychiatrischen

Institutionen, in der ambulanten Versorgung und im häuslichen Bereich bzw. Wohnumfeld von Bedeutung. Die auch heute noch vielfach zu beobachtende Gewohnheit, dass aggressives Verhalten von psychisch erkrankten Menschen in betreuten Wohneinrichtungen als zwingender Grund für eine Krankenhauseinweisung angesehen wird und folglich auch allein das Krankenhaus der Ort ist, an dem institutionelle Gewalt stattfindet, erscheint fragwürdig und wird vermutlich angesichts künftiger unter Kostendruck stattfindender Veränderungen des Versorgungssystems so nicht mehr zu halten sein. Allerdings bezieht sich die gegenwärtig vorliegende wissenschaftliche Literatur entsprechend dem Schwerpunkt der Forschungskapazitäten noch unverhältnismäßig stark auf den stationären Bereich, weshalb auch diese Leitlinie unvermeidlich bzgl. der vorliegenden Evidenz dort ihren Schwerpunkt hat. Dennoch können unter Berücksichtigung der anderen rechtlichen und institutionellen Rahmenbedingungen eine Reihe von Ergebnissen und Empfehlungen auf den außerklinischen bis hin zum häuslichen Bereich übertragen werden.

Anwenderzielgruppe/Adressaten

Zielgruppen der vorliegenden Leitlinie sind:

- die in der Versorgung psychisch erkrankter Menschen Tätigen (Psychiaterinnen und Psychiater, Nervenärztinnen und Nervenärzte, Allgemeinärztinnen und Allgemeinärzte, klinische Psychologinnen und Psychologen, ärztliche und psychologische Psychotherapeutinnen und Psychotherapeuten, Sozialarbeiterinnen und Sozialarbeiter, Pflegende, Ergotherapeutinnen und Ergotherapeuten etc.)
- sich im Rahmen einer psychischen Störung aggressiv verhaltende Erwachsene und Menschen aus deren Umfeld.

Die Leitlinie dient außerdem der Information von politischen Entscheidungsträgern, den Medien und der allgemeinen Öffentlichkeit. Auswirkungen in der Rechtsprechung, der Finanzierungen von Leistungen im Gesundheitswesen und der Anwendungshinweise bei Medikamenten sind möglich und ggf. auch erwünscht.

2. Zusammensetzung der Leitliniengruppe: Beteiligung von Interessensgruppen

Repräsentativität der Leitliniengruppe: Beteiligte Berufsgruppen S2k S3

Die Leitlinie wurde von der Leitliniensteuerungsgruppe bestehend aus Ärztinnen und Ärzten aus Fachkrankenhäusern, Universitätskliniken, den öffentlichen und ambulanten Gesundheitsdiensten sowie Psychologen, Pflegewissenschaftlern, Pflegenden und Fachpflegenden, Juristinnen und Juristen, psychisch erkrankten Menschen und ihren Angehörigen erarbeitet.

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Die resultierenden Empfehlungen wurden in der Konsensusgruppe abgestimmt. In dieser waren die nachfolgend genannten wissenschaftlichen Fachgesellschaften und Organisationen (jeweils mit ihren Mandatsträgern und Berufszugehörigkeit aufgeführt) vertreten. Es wurden Organisationen und Verbände um Beteiligung gebeten, die nach Einschätzung der DGPPN Bezugspunkte zum Thema der Leitlinie haben. Einige antworteten nicht bzw. teilten mit, dass sie nicht teilnehmen könnten.

Nicht direkt in die Leitlinienerstellung einbezogene Experten aus der Betreuung geistig behinderter Menschen (Kurt Hoffmann) und aus dem gerontopsychiatrischen Bereich (Dr. Jochen Tenter) wurden beratend hinzugezogen und erhielten relevante Teile des Leitlinientexts mit Empfehlungen vorab zu einem Review.

In der Konsensuskonferenz vertretene Organisationen und ihre Vertreter

a) AWMF-Mitgliedsgesellschaften

Deutsche Gesellschaft für Psychiatrie und Psychotherapie, Psychosomatik und Nervenheilkunde e. V. (DGPPN) vertreten durch Professor Thomas Pollmächer, Arzt für Psychiatrie und Psychotherapie

Deutsche Gesellschaft für Gerontopsychiatrie und -psychotherapie (DGGPP) vertreten durch Dr. Jochen Tenter, Arzt für Psychiatrie und Psychotherapie

Deutsche Gesellschaft für Suchtforschung und Suchttherapie e. V. (DG-Sucht) vertreten durch Professor Oliver Pogarell, Arzt für Psychiatrie und Psychotherapie

Deutschsprachige Gesellschaft für Psychotraumatologie (DeGPT) vertreten durch Professor Ingo Schäfer, Arzt für Psychiatrie und Psychotherapie

Die Deutsche Gesellschaft für Pflegewissenschaft e.V. (DGP) vertreten durch Professor Markus Witzmann, Pflegewissenschaftler

b) Weitere Organisationen

Betreuungsgerichtstag e. V.

Bundesnetzwerk Selbsthilfe seelische Gesundheit e.V. (Netz G)

Deutsche Alzheimer Gesellschaft e. V. Selbsthilfe Demenz

Deutsche Gesellschaft für Bipolare Störung e. V. (DGBS)

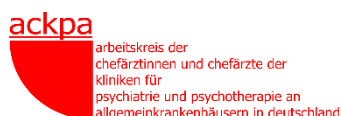
Bundesverband der Angehörigen psychisch Kranker e. V. (BApK)

Berufsverband Deutscher Nervenärzte (BVDN)

Berufsverband Deutscher Psychologinnen und Psychologen e. V. (BDP)

Berufsverband Deutscher Psychiater (BVDP)

Bundesdirektorenkonferenz Psychiatrischer Krankenhäuser e. V. (BDK)



Arbeitskreis der ChefärzteInnen der Kliniken für Psychiatrie und Psychotherapie an Allgemeinkrankenhäusern (ACKPA)

Bundesfachverband Leitender Krankenpflegepersonen in der Psychiatrie e. V. (BFLK)

Bundesinitiative Ambulante Psychiatrische Pflege e. V. (BAPP)

Bundesverband der Berufsbetreuer/innen e. V. (BdB)

Deutsche Fachgesellschaft für Psychiatrische Pflege e. V. (DFPP)

Deutsche Gesellschaft für Soziale Psychiatrie e. V. (DGSP)

Aktion Psychisch Kranke e. V. (APK)

Bundesverband der Ärztinnen und Ärzte des Öffentlichen Gesundheitsdienstes e. V. (BVÖGD)

Repräsentativität der Leitliniengruppe: Beteiligung von Patienten S2k S3

Patientenvertreterinnen waren von Anfang an als Mitglieder der Leitliniensteuerungsgruppe und Autoren an der Erarbeitung der Leitlinie beteiligt (Cornelia Brummer, Ruth Fricke,

Daniela Schmid), auch ein Angehöriger (Christian Zechert). So war es möglich, die Sicht psychisch erkrankter Menschen und ihrer Angehörigen bereits bei der Erstellung der Leitlinientexte und der Ableitung der Empfehlungen mit einfließen zu lassen.

In der Konsensuskonferenz waren vier Betroffenenverbände vertreten (Bundesnetzwerk Selbsthilfe seelische Gesundheit, Bundesverband Psychiatrie-Erfahrener e. V. (BPE), Bundesnetzwerk seelische Gesundheit, Aktion Psychisch Kranke e. V. (APK), die trialogische Deutsche Gesellschaft für Bipolare Störung (DGBS) wurde ebenfalls durch eine Betroffenenvertreterin vertreten und war an der Erarbeitung der Leitlinie beteiligt Der Bundesverband der Angehörigen psychisch Kranker e. V. (BApK) war ebenfalls in der Konsensuskonferenz vertreten.

6 von 25 Stimmen (24 %) in der Konsensuskonferenz halten also Betroffene bzw. ihre Angehörigen, starker Konsens gegen psychisch erkrankte Menschen und ihre Angehörigen war nicht möglich. Gegenstimmen und Minderheitsvoten wurden in der Leitlinie aufgeführt.

Eine gekürzte, leicht verständliche Fassung der Leitlinie speziell für psychisch erkrankte Menschen, ihre Angehörigen und die Öffentlichkeit wird erstellt.

3. Methodologische Exaktheit

Recherche, Auswahl und Bewertung wissenschaftlicher Belege (Evidenzbasierung)

Formulierung von Schlüsselfragen

In mehreren vorbereitenden Treffen wurde die inhaltliche Struktur der Leitlinie mit der Task Force Patientenautonomie der DGPPN, Professor Falkai, Professor Maier und dem Koordinator dieser Leitlinie, Professor Steinert, diskutiert und abgestimmt.

Folgende Schlüsselfragen sollten mit dieser Leitlinie beantwortet werden:

Welcher Zusammenhang besteht zwischen psychischer Erkrankung, Aggression/Gewalt und Zwang? Wie häufig und unter welchen Bedingungen kommt aggressives Verhalten im Rahmen psychischer Erkrankungen vor?

Wie kann man Zwang im Rahmen psychischer Erkrankungen vermeiden? Welche Interventionen sind geeignet Zwang in psychiatrischen Institutionen zu reduzieren?

Wie kann man aggressives Verhalten und gewalttätige Übergriffe im Rahmen psychischer Erkrankungen vermeiden? Welche pharmakologischen und nicht-pharmakologischen Interventionen sind geeignet aggressives Verhalten im Rahmen psychischer Erkrankungen zu behandeln?

Verwendung existierender Leitlinien zum Thema S2e S3

Vor den eigenen systematischen Literaturrecherchen wurde eine Recherche nach anderen Leitlinien, die sich mit den Themen Zwang und Gewalt befassen, durchgeführt. Berücksichtigt wurden psychiatrische Leitlinien, die sich mit aggressivem Verhalten beschäftigten. Ausgeschlossen wurden Leitlinien für Kinder- und Jugendliche, Leitlinien, die reines selbstschädigendes/suizidales Verhalten betrachteten und Leitlinien, welche nur Diagnostik/Evaluation aggressiven Verhaltens beinhalteten.

Dazu wurde die internationalen Leitliniensammlung guidelines.gov mit den trunkierten Stichworten aggress* und violen* durchsucht. Die nachfolgend genannten Leitlinien wurden berücksichtigt. Internationale Evidenz und Expertenwissen wurde stets dann verwendet, wenn es vor dem Hintergrund des deutschen Rechts- und Versorgungssystems anwendbar erschien.

Großbritannien

National Institute of Clinical Excellence (NICE): NICE Guideline NG10 "Violence and Aggression Short-term management in mental health, health and community settings Updated edition", 2015.

Frankreich
Troubles du Comportement chez les Traumatisés Crâniens: Quelles options thérapeutiques ?

Außerdem wurde die deutsche Leitliniensammlung auf AWMF.org durchgesehen. Alle psychiatrischen S3-Leitlinien, die Angaben zum Umgang mit aggressivem Verhalten enthielten, wurden berücksichtigt.

Deutschland
Leitlinie Demenz AWMF-Registrierungsnummer: 038-013 S3
Leitlinie Bipolare Störung AWMF-Registernummer 038/018 S3
Leitlinie Psychosoziale Therapien bei schweren psychischen Erkrankungen Registrierungsnummer: 038-020 S3
Alkoholbezogene Störungen: Screening, Diagnose und Behandlung AWMF Registernummer 076-001 S3

Zudem erfolgte eine Abstimmung der relevanten Empfehlungen in der noch nicht veröffentlichten S3-Leitlinie zur Schizophrenie mit den Autoren, um Widersprüche zwischen den Leitlinien zu vermeiden.

Wenn Leitlinienadaptationen durchgeführt wurden, ist dies bei den entsprechenden Hintergrundtexten und Empfehlungen in der Leitlinie explizit aufgeführt.

Systematische Literaturrecherche S2e S3

Es wurde primär entschieden, zu insgesamt drei Themen systematische Reviews durchzuführen:

- Medikation zur Behandlung aggressiven Verhaltens (als Update der letzten Leitlinie)
- Reduktion von freiheitsbeschränkenden Zwangsmaßnahmen (neu)
- Mitarbeiterschulungen und Deeskalationstechniken (als Update der letzten Leitlinie).

Im Verlauf wurde entschieden, ein viertes systematisches Review durchzuführen zu häuslicher Gewalt gegen Angehörige psychisch erkrankter Menschen, da hier in der alten Leitlinie eine thematische Lücke entdeckt wurde.

Zu den übrigen Themen wurde auf bereits bestehende Reviews zurückgegriffen und es wurden orientierende Suchen durchgeführt. Zusätzlich wurden die Experten der Leitliniensteuerungsgruppe und die externen Experten vor Beginn der Erstellung der jeweiligen Kapitel angeschrieben und gebeten, relevante Literatur aus ihren Forschungsgebieten einzureichen.

Als methodische Unterstützung wurde das Recherchemanual der AWMF sowie die wissenschaftliche Bibliothek Weissenau und die Universitätsbibliothek der Universität Ulm mit einbezogen.

Für jedes der vier im Rahmen der Leitlinie erstellten Reviews und für jede jeweils abgefragte Datenbank wurde ein eigener Suchstring erstellt. Suchtstrings konnten nicht einfach von einer auf die andere Datenbank übernommen werden, da die verschiedenen Datenbanken nicht auf die gleichen Thesauren zugreifen und nicht dieselben Operatoren verstehen.

Die systematische Suche wurde so geplant, durchgeführt und dokumentiert, dass sie jederzeit repliziert und nachvollzogen werden kann. Vor Beginn der Suche wurde das Review zentral registriert. Die neu durchgeführten Reviews wurde bei PROSPERO (https://www.crd.york.ac.uk/PROSPERO/) registriert (Registernummer Freiheitsbeschränkende Maßnahmen # 42016035541, Gewalt gegen Angehörige #).

Auswahl der Datenbanken

Zu Beginn des systematischen Reviews wurde festgelegt, welche Datenbanken herangezogen und durchsucht werden sollen. Entsprechend der Empfehlungen des Deutschen Cochrane Zentrums, der Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften (AWMF) und des Ärztlichen Zentrums für Qualität in der Medizin (ÄZQ) wurden mindestens zwei unterschiedliche Datenbanken durchsucht: Medline und Cinahl (Deutsches Cochrane Zentrum 2013). Medline ist die Datenbank der US-amerikanischen National Library of Medicine und enthält Zitationen und Zusammenfassungen internationaler biomedizinischer Zeitschriftenartikel. Medline wurde über die Oberfläche Pubmed im Internet kostenlos abgerufen (US National Library of Medicine 2017a). Da es sich bei Zwangsmaßnahmen vor allem im angloamerikanischen Bereich um ein Thema handelt, das vorwiegend von pflegewissenschaftlicher und weniger von medizinischer Seite beforscht wird, wurde die Suche in Medline um eine Suche in Cinahl ergänzt. Die kostenpflichtige Datenbank Cinahl wurde über eine Lizenz des Universitätsklinikums Ulm über die Oberfläche EbscoHost verwendet. Bei Cinahl handelt es sich nach Angaben der Betreiber um die Datenbank mit der größten Sammlung an pflege- und gesundheitswissenschaftlichen Artikeln. Durch die Kombination dieser beiden Datenbanken soll eine möglichst umfassende Suche mit Ergebnissen von Wissenschaftlerinnen und Wissenschaftlern aus verschiedenen Disziplinen und Ländern erreicht werden.

Für das systematische Review über Gewalt gegen Angehörige wurden weitere psychologische Datenbanken (PsycINFO, PsyndexPLUS) sowie die mehr europäisch ausgerichtete Datenbank EMBASE einbezogen.

Neben Primärliteratur wurden bei der systematischen Suche auch systematische Reviews anderer Autoren gefunden. Die Literaturverzeichnisse der Reviews mit klar beschriebener

und gut nachvollziehbarer Methodik wurden durchgesehen und so weitere wichtige, durch die systematische Datenbankabfrage noch nicht erfasste Arbeiten eingeschlossen, eine für systematische Reviews ebenfalls empfohlene Methode („Referenzrecherche“, Horsley et al. 2011). Eingeschlossen wurde dann nur die jeweilige Primärliteratur aus der systematischen Datenbankabfrage und der Referenzrecherche. Das heißt, die Reviews selbst wurden ausgeschlossen, um zu vermeiden, dass eine Originalstudie zwei- oder mehrfach eingeschlossen wird, wenn sie in mehreren Reviews eingeschlossen wurde.

Auswahl des Literaturverwaltungsprogramms

Zum Sammeln und Ordnen der Literaturstellen wurde das Literaturverwaltungs- und Wissensmanagementprogramm Citavi in der Version 5.3 mit einer Serverlizenz verwendet.

PICO-Schema und Suchstring

Die Erstellung des Suchstrings erfolgte aus der formulierten Fragestellung und den vorab festgelegten Ein- und Ausschlusskriterien mit Hilfe des PICO-Schemas als Zwischenschritt (Liberati et al. 2009). PICO steht für Person, Intervention, Comparison (Vergleichsintervention bzw. -gruppe) und Outcome (Endpunkt). Die Ein- und Ausschlusskriterien, wurden danach sortiert, ob sie sich auf den zu untersuchenden Personenkreis P (z. B. erwachsene Menschen mit einer schweren psychischen Erkrankung), die zu untersuchende Intervention I (z. B. Interventionen zur Reduktion von Zwang) oder den gesuchten klinischen Endpunkt O (z. B. Zwangsmaßnahme) bezogen.

Nach Möglichkeit wurde jedes Ein- und Ausschlusskriterium mit einem oder mehreren Stichwörtern umschrieben. Diese Stichwörter waren in englischer Sprache, da die verwendeten Datenbanken vornehmlich englischsprachige Literatur bzw. Literatur, bei welcher zumindest Titel und Zusammenfassung („Abstract“) auf Englisch erschienen sind, enthalten. Die Stichwörter wurden trunkiert, um auch ähnliche Wörter finden zu können. Mit den Stichwörtern wurden der Titel und die Zusammenfassung eines Artikels durchsucht. Zusätzlich zu den Stichwörtern wurden Schlagwörter verwendet. Die Gesamtheit der Schlagwörter, die einem Artikel zugeordnet werden, skizziert das Thema des Artikels. Die Schlagwörter, die in einer bestimmten Datenbank verwendet werden, werden in einem sogenannten Thesaurus gesammelt. Für Medline sind dies die Medical Subject Headings (MeSH-Terms). Für den umfangreichen Thesaurus der MeSH-Terms wurde eine von der amerikanischen Nationalbibliothek für Medizin angebotene Suchmaschine verwendet (US National Library of Medicine 2017b). Durch die Eingabe der Stichwörter wurden die zugehörigen Schlagwörter gefunden. Ein Schlagwort befindet sich stets in einer logischen Ordnung innerhalb des Thesaurus, es gibt weitere Ober- und enger Unterbegriffe. Ober- und Unterbegriffe wurden durchgesehen und ebenfalls der Suche als Schlagwort hinzugefügt, sofern dies sinnvoll erschien.

Allgemeines Schema für die Sammlung von Stich- und Schlagworten zur Beschreibung der Ein- und Ausschlusskriterien nach dem PICO-Schema in einer Tabelle

Person	Intervention	Comparison	Outcome
Stichworte zu Person	Stichworte zur Intervention	Stichworte zur Vergleichsintervention	Stichworte zum Endpunkt
…	…	…	…
Schlagworte zu Person	Schlagworte zur Intervention	Schlagworte zur Vergleichsintervention	Schlagworte zum Endpunkt
…	…	…	…

Die einzelnen Stich- und Schlagwörter wurden zur Konstruktion des Suchterms mit Operatoren miteinander verbunden. Dabei wurden in dieser Dissertation die Booleschen Operatoren *AND* (und) und *OR* (oder) verwendet. Werden Wörter mit *AND* verknüpft, werden nur Artikel gefunden, die sowohl das eine als auch das andere Wort enthalten. Werden sie mit *OR* verknüpft, werden sowohl Artikel, die nur das eine, als auch solche, die nur das andere oder beide Wörter enthalten, gefunden. Auf ausschließende Operatoren wie *NOT* (nicht) oder *XOR* (entweder, oder) wurde entsprechend der Literatur zur Konstruktion von Suchen verzichtet, da so häufig fälschlicherweise Artikel ausgeschlossen werden, in welchen ein Wort oder ein Wortteil zufällig in anderem Zusammenhang erscheint (Deutsches Cochrane Zentrum 2013). Die Inhalte innerhalb der Spalten der PICO-Tabelle wurden mit *OR* verknüpft, die Spalten miteinander dann mit *AND*. Des Weiteren wurden Klammern gesetzt, damit *OR* vor *AND* Operatoren durchgeführt werden, wie für die Suche nach dem oben erstellten PICO-Schema erforderlich. Ohne Klammern werden *AND*- vor *OR*-Operatoren ausgeführt, ähnlich der Regelung „Punkt vor Strich“ in der Mathematik.

Suchstrategien und -terme wurden vor Beginn der Suchen im schriftlichen Umlaufverfahren konsentiert. Dazu wurden diese in einer Cloud und per E-Mail den Mitgliedern der Leitliniensteuerungsgruppe zur Verfügung gestellt. Pro Suche hatte die Steuerungsgruppe 4 Wochen Zeit zu kommentieren, eine Woche vor Ablauf der Frist erfolgte eine Erinnerung per E-Mail. Die Suchbegriffe wurden dazu übersichtlich dem PICO-Schema (PICO = Patient, Intervention, Comparison, Outcome, entsprechend den Ein- und Ausschlusskriterien unserer Leitlinie) zugeordnet, um zu vermeiden, dass lange, unübersichtliche Suchbefehle bewertet werden müssen. Stillschweigen wurde bei der Konsentierung der Suchterme ausnahmsweise als Zustimmung gewertet.

Auswahl der Suchergebnisse

Nach Abschluss der Suche wurden die Ergebnisse in das Literaturverwaltungsprogramm Citavi importiert. Dubletten (hier Artikel, die sowohl über Cinahl als auch über Medline gefunden wurden) wurden mit Hilfe von Citavi entfernt. Das Ein- und Ausschließen der Artikel erfolgte anhand der Ein- und Ausschlusskriterien in drei Schritten. Im ersten Schritt

wurde der Titel des gefundenen Artikels gelesen und es wurde entschieden, ob der Artikel gleich anhand des Titels ausgeschlossen werden musste. Im zweiten Schritt wurde, wenn der Artikel nicht anhand seines Titels ausgeschlossen wurde, die Zusammenfassung geprüft. Im dritten Schritt wurde der ganze Artikeltext gelesen und abhängig von den Ein- und Ausschlusskriterien ein- oder ausgeschlossen (Fulltext-Screening“). Die Artikel wurden von zwei Personen unabhängig voneinander gelesen und ein- bzw. ausgeschlossen. Bei Uneinigkeit der Personen erfolgte der Ein- oder Ausschluss nach Diskussion zwischen beiden.

Ein- und Ausschlusskriterien, Suchstrategien und Suchterme, Suchzeitpunkte sowie Rater der einzelnen Reviews:

Medikamente (Rater: Sophie Hirsch, Tilman Steinert):

a) Rapid Tranquilisation

Zuerst wurde eine Suche speziell nach Reviews ab 2006 durchgeführt, was einem Vorgehen entsprechend der alten S2 LL und somit einem Update entspricht. Durchsucht wurde die Datenbank Pubmed. Zudem wurde awmf.org und guidelines.gov zur Identifikation bereits bestehender Leitlinien durchsucht.
Wenn es nahezu zeitgleich mehrere Reviews zur selben Fragestellung gab, die sich in ihrer Literaturauswahl zwar überschnitten, aber nicht völlig identisch waren, wurde folgendermaßen vorgegangen:

- Einzelstudien und Reviews dürfen nicht noch einmal mit bewertet werden, wenn sie schon in einem anderen Review enthalten sind. Teilweise wurden besonders wichtige Studien oder Studien mit zusätzlichen Outcomes und Informationen neben der Hauptfragestellung des Reviews erneut zitiert.
- Wenn mehrere Reviews zur gleichen Zeit erschienen sind, gilt es zu prüfen, ob diese genau die gleiche Fragestellung betreffen und dieselben Datenbanken/Suchstrategien bemüht wurden. In der Regel wird das methodisch beste Review gewählt und die übrigen nur mit dem Hinweis „Doppelpublikation“ aufgeführt. Die in dem Review nicht enthaltenen Einzelstudien, die evtl. in einem anderen Review aufgeführt sind, werden nach einer entsprechenden Handsuche einzeln zitiert. Im Zweifel sollen auch in diesem Fall lieber Originalstudien als Reviews verwendet werden.
- Wenn Reviews methodisch unzureichend sind, muss man sich im Zweifelsfall auf die einzelnen Zitationen beziehen und soll das Review als Hilfe nicht heranziehen.

Als Suchterm wurde vorerst lediglich
Rapid AND tranquil*
verwendet. Im Laufe der Arbeit ergaben sich aber Sicherheitsbedenken bzgl. der inhalativen Applikationsform sowie der Kombination von Olanzapin und Benzodiazepinen, weswegen hier ergänzende Suchen durchgeführt wurden.

Inhaled AND loxapin
Olanzapine* AND benzodiazepine* AND safety

Im Verlauf des Leitlinienerstellungsprozesses wurde dann auf Wunsch der beteiligten Betroffenenvertreter eine weitere systematische Suche nach dem Vorbild der für diese Leitlinie erstellte systematischen Reviews (Zwangsmaßnahmen, Angehörigenarbeit, Deeskalation) nach folgendem Schema durchgeführt:

<u>Textwörter [Titel/Abstract] und MeSH-Terms [MeSH]</u>

P(erson)	I(intervention)	C	O(utcome)
mental*	rapid tranquil*		violen*
psychiatr*	adrenergic		aggress*
schizo*	anticonvuls*		anger*
autis*	neurolept*		agitat*
delir*	antipsychotic*		hostil*
dement*	mood stabili*		aggression[MeSH Terms]
intellect*	benzodiazepin*		violence[MeSH Terms]
brain injur*	lithium		anger[MeSH Terms]
bipolar	psychotrop*		psychomotor agitation[MeSH Terms]
Affective psychosis, bipolar[MeSH Terms]	adrenergic beta antagonists[MeSH Terms]		hostility[MeSH Terms]
Behavior disorder, disruptive[MeSH Terms]	anticonvulsants[MeSH Terms]		
Impulse control disorders[MeSH Terms]	anti dyskinesia agents[MeSH Terms]		
mood disorders[MeSH Terms]	central nervous system depressants[MeSH Terms]		
Neurocognitive disorders[MeSH Terms]	psychotropic drugs[MeSH Terms]		
Neurodevelopmental	Estrogenic		

disorders[MeSH Terms]	agents[MeSH Terms]		
Personality disorders[MeSH Terms]	Gestagenic agents[MeSH Terms]		
Paranoid Disorders[MeSH Terms]	Antiandrogens[MeSH Terms]		
Psychotic Disorders[MeSH Term]	neurotransmitter agents[MeSH Terms]		
Schizophrenia[MeSH Term]			
Post traumatic stress disorder[MeSH Terms]			

Diese Suche war erneut als Update der S2 LL angelegt und beinhaltete daher Ergebnisse ab 2006 bis hin zum Abfragezeitpunkt im September 2016. Daraus ergab sich folgender Suchstring:
(mental*[Title/Abstract] OR psychiatr*[Title/Abstract] OR schizo*[Title/Abstract] OR autis*[Title/Abstract] OR delir*[Title/Abstract] OR dement*[Title/Abstract] OR intellect*[Title/Abstract] OR brain injur*[Title/Abstract] OR bipolar[Title/Abstract] OR Affective psychosis, bipolar[MeSH Terms] OR Behavior disorder, disruptive[MeSH Terms] OR Impulse control disorders[MeSH Terms] OR mood disorders[MeSH Terms] OR Neurocognitive disorders[MeSH Terms] OR Neurodevelopmental disorders[MeSH Terms] OR Personality disorders[MeSH Terms] OR Paranoid Disorders[MeSH Terms] OR Psychotic Disorders[MeSH Term] OR Schizophrenia[MeSH Term] OR Post traumatic stress disorder[MeSH Terms]) AND (violen*[Title/Abstract] OR aggress*[Title/Abstract] OR anger*[Title/Abstract] OR agitat*[Title/Abstract] OR hostil*[Title/Abstract] OR aggression[MeSH Terms] OR violence[MeSH Terms] OR anger[MeSH Terms] OR psychomotor agitation[MeSH Terms] OR hostility[MeSH Terms]) AND (rapid tranquil*[Title/Abstract] OR adrenergic[Title/Abstract] OR anticonvuls*[Title/Abstract] OR neurolept*[Title/Abstract] OR antipsychotic*[Title/Abstract] OR mood stabili*[Title/Abstract] OR benzodiazepin*[Title/Abstract] OR lithium[Title/Abstract] OR psychotrop*[Title/Abstract] OR adrenergic beta antagonists[MeSH Terms] OR anticonvulsants[MeSH Terms] OR anti dyskinesia agents[MeSH Terms] OR central nervous system depressants[MeSH Terms] OR psychotropic drugs[MeSH Terms] OR Estrogenic agents[MeSH Terms] OR Gestagenic agents[MeSH Terms] OR Antiandrogens[MeSH Terms] OR neurotransmitter agents[MeSH Terms]) AND ("2006/01/01"[Date - Publication] : "3000"[Date - Publication])

Die Suche beschränkte sich hier ebenfalls auf die Pubmed-Datenbank. Erneut wurde von aggregierter Evidenz ausgegangen und erst alle systematischen Reviews gesichtet, dann noch die neuesten Einzelstudien ab 2016, die noch nicht in der ersten Suche enthalten gewesen waren.

b) <u>Behandlung rezidivierenden aggressiven Verhaltens</u>

Zuerst wurde eine Suche speziell nach Reviews bezüglich der einzelnen Substanzen durchgeführt, was einem Vorgehen entsprechend der alten S2 LL und somit einem Update entspricht. Dann eine komplementäre Suche auch nach Primärliteratur zu den einzelnen Erkrankungen, bei denen wie folgt vorgegangen wurde: Bei Demenz ab 2005 gesucht, entspricht einem Update der S2-LL. Bei den übrigen Krankheitsbildern wurden die Kapitel neu erstellt. Suche wurde i.d.R. ab 2011 durchgeführt, entspricht einer Konzentration auf aktuelle Literatur. Das jeweilige Datum der Suche in eckigen Klammern angegeben. Durchsucht wurde die Datenbank Pubmed. Zudem wurde awmf.org und guidelines.gov zur Identifikation bereits bestehender Leitlinien durchsucht.
Wenn es nahezu zeitgleich mehrere Reviews zur selben Fragestellung gab, die sich in ihrer Literaturauswahl zwar überschnitten, aber nicht völlig identisch waren, wurde folgendermaßen vorgegangen:

- Einzelstudien und Reviews dürfen nicht noch einmal mit bewertet werden, wenn sie schon in einem anderen Review enthalten sind. Teilweise wurden besonders wichtige Studien oder Studien mit zusätzlichen Outcomes und Informationen neben der Hauptfragestellung des Reviews erneut zitiert.
- Wenn mehrere Reviews zur gleichen Zeit erschienen sind, gilt es zu prüfen, ob diese genau die gleiche Fragestellung betreffen und dieselben Datenbanken/Suchstrategien bemüht wurden. In der Regel wird das am methodisch beste Review gewählt und die übrigen nur mit dem Hinweis „Doppelpublikation" aufgeführt. Die in dem Review nicht enthaltenen Einzelstudien, die evtl. in einem anderen Review aufgeführt sind, werden nach einer entsprechenden Handsuche einzeln zitiert. Im Zweifel sollen auch in diesem Fall lieber Originalstudien als Reviews verwendet werden.
- Wenn Reviews methodischunzureichend sind, muss man sich im Zweifelsfall auf die einzelnen Zitationen beziehen und soll das Review als Hilfe nicht heranziehen.

Aggress* AND adrenergic antagonist [-01.12.2015]
Aggress* AND anticonvulsant [-01.12.2015]
Aggress* AND antidepressant [-01.12.2015]
Aggress* AND antipsychotic [-01.12.2015]
Aggress* AND benzodiazepine [-01.12.2015]
Aggress* AND drug intervention [-01.12.2015]
Aggress* AND lithium [-01.12.2015]
Aggress* AND psychotropic drugs [-01.12.2015]
Violen* AND adrenergic antagonist [-01.12.2015]

Violen* AND anticonvulsant [-01.12.2015]
Violen* AND antidepressant [-01.12.2015]
Violen* AND antipsychotic [-01.12.2015]
Violen* AND benzodiazepine [-01.12.2015]
Violen* AND drug intervention [-01.12.2015]
Violen* AND lithium [-01.12.2015]
Violen* AND psychotropic drugs [-01.12.2015]
Anger AND drug intervention [-01.12.2015]
Anger AND psychotropic drugs [-01.12.2015]
Hostility AND drug intervention [-01.12.2015]
Hostility AND psychotropic drugs [-01.12.2015]
Aggress* AND autism* [2011-02.02.2016]
Violen* AND autism* [2011-03.02.3016]
Aggress* AND brain injury [2011-23.02.2016]
Violen* AND brain injury [2011-23.02.3016]
Aggress* AND delir* [2011-24.02.2016]
Violen* AND delir* [2011-24.02.3016]
Aggress* AND dementia [2005-15.12.2015]
Agitation AND dementia [2005-15.12.2015]
Aggress* AND intellectual* disab* [2011-26.01.2016]
Violen* AND intellectual* disab * [2011-02.03.3016]

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<u>Textwörter [Titel/Abstract] und MeSH-Terms [MeSH]</u>

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psychiatr*	adrenergic		aggress*
schizo*	anticonvuls*		anger*
autis*	neurolept*		agitat*
delir*	antipsychotic*		hostil*
dement*	mood stabili*		aggression[MeSH Terms]
intellect*	benzodiazepin*		violence[MeSH Terms]
brain injur*	lithium		anger[MeSH Terms]
bipolar	psychotrop*		psychomotor agitation[MeSH

			Terms]
Affective psychosis, bipolar[MeSH Terms]	adrenergic beta antagonists[MeSH Terms]		hostility[MeSH Terms]
Behavior disorder, disruptive[MeSH Terms]	anticonvulsants[MeSH Terms]		
Impulse control disorders[MeSH Terms]	anti dyskinesia agents[MeSH Terms]		
mood disorders[MeSH Terms]	central nervous system depressants[MeSH Terms]		
Neurocognitive disorders[MeSH Terms]	psychotropic drugs[MeSH Terms]		
Neurodevelopmental disorders[MeSH Terms]	Estrogenic agents[MeSH Terms]		
Personality disorders[MeSH Terms]	Gestagenic agents[MeSH Terms]		
Paranoid Disorders[MeSH Terms]	Antiandrogens[MeSH Terms]		
Psychotic Disorders[MeSH Term]	neurotransmitter agents[MeSH Terms]		
Schizophrenia[MeSH Term]			
Post traumatic stress disorder[MeSH Terms]			

Diese Suche war erneut als Update der S2 LL angelegt und beinhaltete daher Ergebnisse ab 2006 bis hin zum Abfragezeitpunkt im September 2016. Daraus ergab sich folgender Suchstring:

(mental*[Title/Abstract] OR psychiatr*[Title/Abstract] OR schizo*[Title/Abstract] OR autis*[Title/Abstract] OR delir*[Title/Abstract] OR dement*[Title/Abstract] OR intellect*[Title/Abstract] OR brain injur*[Title/Abstract] OR bipolar[Title/Abstract] OR

Affective psychosis, bipolar[MeSH Terms] OR Behavior disorder, disruptive[MeSH Terms] OR Impulse control disorders[MeSH Terms] OR mood disorders[MeSH Terms] OR Neurocognitive disorders[MeSH Terms] OR Neurodevelopmental disorders[MeSH Terms] OR Personality disorders[MeSH Terms] OR Paranoid Disorders[MeSH Terms] OR Psychotic Disorders[MeSH Term] OR Schizophrenia[MeSH Term] OR Post traumatic stress disorder[MeSH Terms]) AND (violen*[Title/Abstract] OR aggress*[Title/Abstract] OR anger*[Title/Abstract] OR agitat*[Title/Abstract] OR hostil*[Title/Abstract] OR aggression[MeSH Terms] OR violence[MeSH Terms] OR anger[MeSH Terms] OR psychomotor agitation[MeSH Terms] OR hostility[MeSH Terms]) AND (rapid tranquil*[Title/Abstract] OR adrenergic[Title/Abstract] OR anticonvuls*[Title/Abstract] OR neurolept*[Title/Abstract] OR antipsychotic*[Title/Abstract] OR mood stabili*[Title/Abstract] OR benzodiazepin*[Title/Abstract] OR lithium[Title/Abstract] OR psychotrop*[Title/Abstract] OR adrenergic beta antagonists[MeSH Terms] OR anticonvulsants[MeSH Terms] OR anti dyskinesia agents[MeSH Terms] OR central nervous system depressants[MeSH Terms] OR psychotropic drugs[MeSH Terms] OR Estrogenic agents[MeSH Terms] OR Gestagenic agents[MeSH Terms] OR Antiandrogens[MeSH Terms] OR neurotransmitter agents[MeSH Terms]) AND ("2006/01/01"[Date - Publication] : "3000"[Date - Publication])

Die Suche beschränkte sich hier ebenfalls auf die Pubmed-Datenbank. Erneut wurde von aggregierter Evidenz ausgegangen und erst alle systematischen Reviews gesichtet, dann noch die neuesten Einzelstudien ab 2016, die noch nicht in der ersten Suche enthalten gewesen waren.

<u>Freiheitsbeschränkende Maßnahmen (Rater: Sophie Hirsch, Tilman Steinert, Erich Flammer (extern)):</u>

Ein- und Ausschlusskriterien

Eingeschlossen wurden alle Studien, welche Interventionen zur Reduktion von mechanischen Zwangsmaßnahmen bei erwachsenen Patientinnen und Patienten mit einer psychischen Erkrankung untersuchten. Es wurden nur Patientinnen und Patienten mit schweren psychischen Erkrankungen (im Sinne von „severe mental illness“, also Psychose/Schizophrenie, bipolare Störung), Suchterkrankungen und schweren Persönlichkeitsstörungen (vornehmlich Borderline-Persönlichkeitsstörung) eingeschlossen. Dabei wurde es als ausreichend erachtet, wenn die Diagnosen klinisch gestellt wurden, da bereits zu Beginn der Arbeit zu erwarten war, dass vor allem klinische Beobachtungsstudien gefunden würden. Ausgeschlossen wurden grundsätzlich alle Patientinnen und Patienten ohne psychische Erkrankung. Ausgeschlossen wurden daher Studien, die Patientinnen und Patienten, bei denen nur ein neurologisches, chirurgisches oder internistisches Krankheitsbild beschrieben war, beschreiben, also auch die Literatur über aggressives Verhalten im Rahmen epileptischer Anfälle bzw. in postiktalen Zuständen. Studien, in denen nur oder vornehmlich Kinder und Jugendliche unter 18 Jahren untersucht wurden, wurden

ebenso wenig eingeschlossen. In Ländern, in denen Kinder und Jugendliche in der Erwachsenenpsychiatrie mit behandelt werden, fanden sich teilweise Studien mit gemischten Populationen, die dann in die Arbeit aufgenommen wurden, wenn der Anteil der Kinder und der Anteil der Erwachsenen nachvollziehbar berichtet wurde und erwachsene Menschen überwogen. Grundsätzlich wurden nur Studien aufgenommen, die die Reduktion oder Vermeidung von mechanischen Zwangsmaßnahmen untersuchen (Fixierung, Isolierung, Festhalten). Nicht eingeschlossen wurden Studien, die sich mit der Häufigkeit von Zwangseinweisungen oder Zwangsbehandlungen beschäftigen. Es waren sowohl Studien geeignet, bei denen die Häufigkeit von Zwangsmaßnahmen als (primärer) Endpunkt untersucht wurde, als auch Studien, die die Dauer der einzelnen Zwangsmaßnahme oder die kumulierte Dauer aller Zwangsmaßnahmen als (primären) Endpunkt zum Inhalt hatten. Alle Interventionen auf pflegerischer, therapeutischer, organisatorischer und politischer Ebene (beispielsweise auch Gesetzesänderungen) wurden eingeschlossen. Wesentlich war, dass die Intervention auf die Reduktion von Zwangsmaßnahmen abzielte oder zumindest auf Aggression und Gewalt, wenn Zwangsmaßnahmen als Surrogatparameter verwendet wurden. Reine Medikamentenstudien wurden ausgeschlossen. Studien über Interventionen, die primär auf eine bessere Behandlung einer bestimmten Patientengruppe abzielten und in der Folge zu weniger Zwangsmaßnahmen führten, wurden nicht eingeschlossen. Häufig war dies bei Studien über delirante Zustände mit konsekutiver Fixierung der Fall. Ebenfalls ausgeschlossen wurden Studien, in denen mechanische Zwangsmaßnahmen als eine Nebenwirkung einer anderen, auf einen anderen Endpunkt abzielende Intervention mit gemessen wurden. Ein häufiges Beispiel hierfür war die Fragestellung, ob die Einführung eines Rauchverbots auf Station aufgrund strengerer Nichtrauchergesetze in Europa zu vermehrten Zwangsmaßnahmen führte. Artikel, die überhaupt keine Intervention beinhalteten, sondern lediglich den Verlauf über die Zeit beschrieben, wurden ebenfalls ausgeschlossen. Nicht eingeschlossen wurden zudem Untersuchungen reiner Assoziationen klinischer, soziodemographischer oder sonstiger Parameter mit der Häufigkeit von Zwangsmaßnahmen (wie Erkrankung der Patientinnen und Patienten, Besetzung der Schicht, Herkunft oder Alter der Beteiligten), ohne dass eine Intervention stattfand oder sich zumindest die äußeren Umstände, wie beispielsweise gesetzliche Vorgaben oder das politische System, bedeutsam änderten. Eingeschlossen wurden nur Studien, in denen mechanische Zwangsmaßnahmen als Sicherungsmaßnahmen im engeren Sinne verstanden wurden und aus Sicht der Durchführenden als „Ultima Ratio“ eingesetzt wurden. Ausgeschlossen wurden daher ebenso Studien, in denen Fixierung als „verhaltenstherapeutische Maßnahme“ gezielt eingesetzt und wieder ausgeschlichen wurde.

PICO-Schema und Suchstring

Die zu untersuchende Vergleichsintervention C wurde bei diesem Review nicht extra abgebildet, da mit wenigen kontrollierten Studien mit Vergleichsinterventionen gerechnet wurde.
Die Tabelle 1 zeigt die Stich- und Schlagwörter, welche zur Suche verwendet wurden, nach dem PICO-Schema geordnet.
Tabelle: (Verkürztes) PICO-Schema. PICO steht für Person, Intervention, Comparison und Outcome (Person, Intervention, Vergleichsintervention und Endpunkt) und ermöglicht eine systematische, reproduzierbare Suche mit guter Sensitivität und Spezifität. Die Tabelle enthält trunkierte Stichwörter, mit denen Titel und Zusammenfassung der Artikel in den Datenbanken durchsucht wurden, sowie Schlagwörter, mit denen der Thesaurus von Medline, die Medical Subject Headings, durchsucht wurde.

P	I	O
mental*	Reduc*	Restrain*
psychiatr*	Eliminat*	Seclu*
schizo*	Prevent*	Coerci*
autis*	Human right*	containment
delir*	Crisis intervention	
dement*	De-escalat*	
intellect*		
brain injur*		
bipolar		
Affective psychosis, bipolar[MeSH Terms]	Human Rights[MeSH]	Restraint, physical[MeSH]
Behavior disorder, disruptive[MeSH Terms]	Patient Advocacy[MeSH]	Coercion[MeSH]
Impulse control disorders[MeSH Terms]		
mood disorders[MeSH Terms]		
Neurocognitive disorders[MeSH Terms]		
Neurodevelopmental disorders[MeSH Terms]		
Personality disorders[MeSH Terms]		
Paranoid Disorders[MeSH Terms]		
Psychotic Disorders[MeSH		

Term]		
Schizophrenia[MeSH Term]		
Post traumatic stress disorder[MeSH Terms]		

Folgende Suchstrings wurden verwenden:
Medline:
(Reduc[Title/Abstract] OR Eliminat*[Title/Abstract] OR Prevent*[Title/Abstract] OR Human right*[Title/Abstract] OR "Crises intervention"[Title/Abstract] OR De-escalat*[Title/Abstract] OR Human Rights[MeSH] OR Patient Advocacy[MeSH]) AND (Restrain*[Title/Abstract] OR Seclu*[Title/Abstract] OR Coerci*[Title/Abstract] OR containment[Title/Abstract] OR Restraint, physical[MeSH] OR Coercion[MeSH]) AND (mental*[Title/Abstract] OR psychiatr*[Title/Abstract] OR schizo*[Title/Abstract] OR autis*[Title/Abstract] OR delir*[Title/Abstract] OR dement*[Title/Abstract] OR intellect*[Title/Abstract] OR brain injur*[Title/Abstract] OR bipolar[Title/Abstract] OR Affective psychosis, bipolar[MeSH Terms] OR Behavior disorder, disruptive[MeSH Terms] OR Impulse control disorders[MeSH Terms] OR mood disorders[MeSH Terms] OR Neurocognitive disorders[MeSH Terms] OR Neurodevelopmental disorders[MeSH Terms] OR Personality disorders[MeSH Terms] OR Paranoid Disorders[MeSH Terms] OR Psychotic Disorders[MeSH Term] OR Schizophrenia[MeSH Term] OR Post traumatic stress disorder[MeSH Terms])*

Cinahl
AB (Reduc OR Eliminat* OR Prevent* OR Human right* OR "Crises intervention" OR De-escalat*) AND (Restrain* OR Seclu* OR Coerci* OR containment) AND (mental* OR psychiatr* OR schizo* OR autis* OR delir* OR dement* OR intellect* OR brain injur* OR bipolar) OR TI (Reduc* OR Eliminat* OR Prevent* OR Human right* OR "Crises intervention" OR De-escalat*) AND (Restrain* OR Seclu* OR Coerci* OR containment) AND (mental* OR psychiatr* OR schizo* OR autis* OR delir* OR dement* OR intellect* OR brain injur* OR bipolar)*

Die Suche wurde am 20.09.2016 durchgeführt.
Erste Raterin war Sophie Hirsch (wissenschaftliche Mitarbeiterin), zweiter Rater Erich Flammer (extern).
Die Suche bei Medline ergab am 20.09.2016 2446 Treffer, die bei Cinahl 469. Nach Entfernung der Dubletten verblieben 2578 Artikel zum Title-Abstract-Screening (Schritt 1 und 2 des Ein- und Ausschlussprozesses). Davon wurden noch 336 vollständig durchgelesen und letztendlich 71 der durch die systematische Datenbankrecherche identifizierten Artikel in das Review zur qualitativen Synthese eingeschlossen. Bei der Recherche in den Referenzlisten der Reviews wurden auch Artikel aus Zeitschriften gefunden, die nicht in Pubmed gelistet waren. Des Weiteren konnten so ältere Artikel gefunden werden, die teilweise keine oder nur eine sehr kurze oder unstrukturierte Zusammenfassung hatten,

sodass sie mit den heute üblichen Suchstrategien, die auf den Titel und die Zusammenfassung fokussieren, nicht sicher gefunden werden können. Hiervon wurden weitere 14 Artikel eingeschlossen, sodass dieses Review insgesamt 85 Artikel einschließt, welche 78 unterschiedliche Studien beschreiben. Recherche, Screening und Ein- und Ausschluss sind in Abbildung XXX dargestellt.

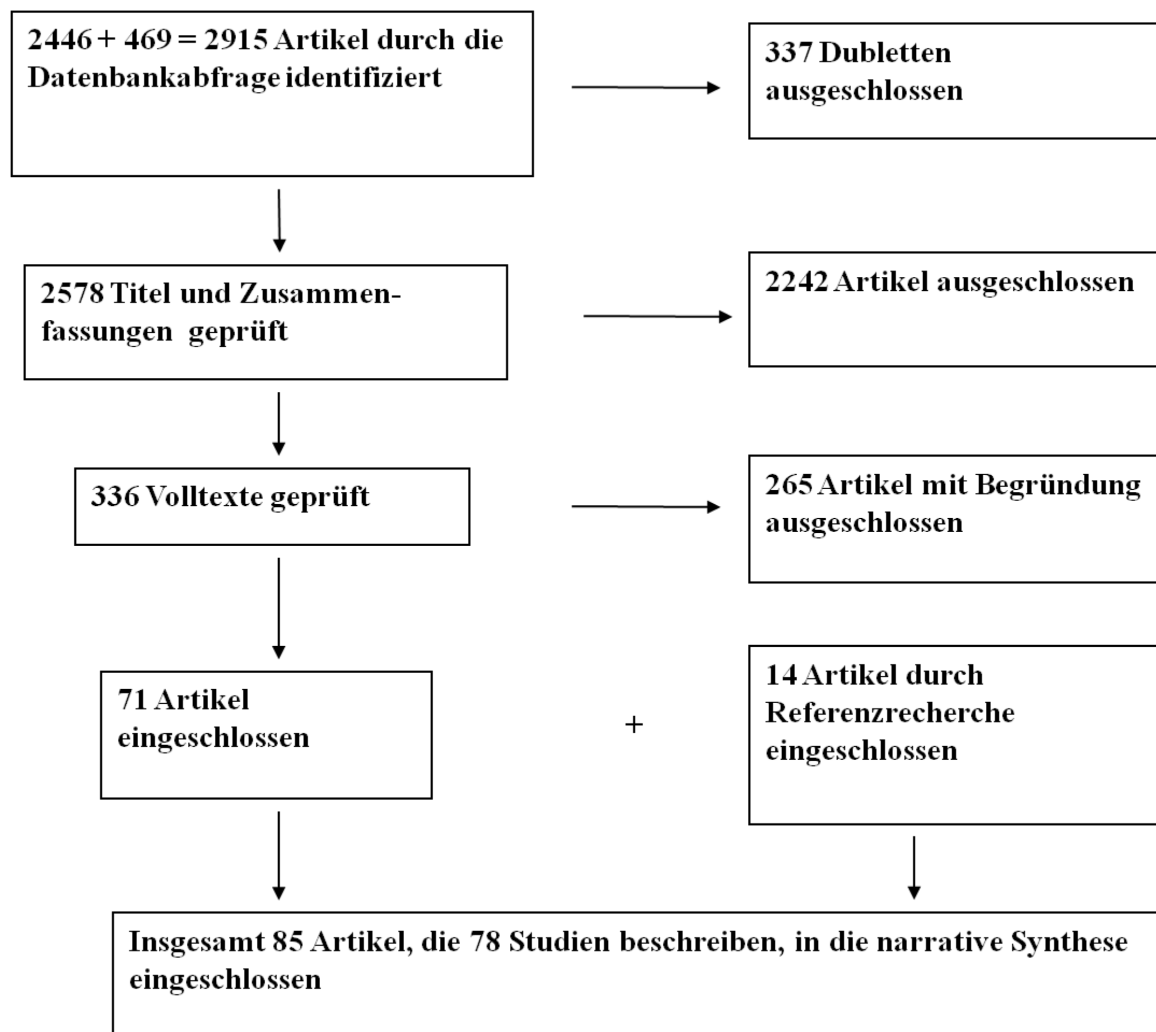

Abbildung: Das Flow-Chart beschreibt den zur Erstellung des systematischen Reviews durchgeführten mehrstufigen Ein- und Ausschussprozess. Die Anzahl der gefunden, ein- und ausgeschlossenen Artikel sowie der von ihnen beschriebenen Studien sind aufgeführt.

Alle 337 Artikel, die das Fulltext-Screening durchlaufen haben, sind im Anhang aufgeführt. Die eingeschlossenen Artikel werden im Anhang in Evidenztabellen aufgeführt. Insgesamt wurden 265 im Fulltextscreening Artikel ausgeschlossen.

Tabelle: Häufige Ausschlussgründe beim Fulltext-Screening. Die linke Spalte enthält häufige Ausschlussgründe, die rechte Spalte enthält die Anzahl der Artikel, die deshalb ausgeschlossen wurden, sowie deren Anteil an allen ausgeschlossenen Artikeln in Prozent. Die Differenz zu 100 Prozent ist durch Rundungen bedingt.

Ausschlussgrund	Anzahl Artikel (%)
keine Daten zur Reduktion von mechanischen Zwangsmaßnahmen berichtet	52 (19,6)
Reduktion von Zwang nicht als primäres Outcome oder Surrogatparameter für die Reduktion von Gewalt definiert, sondern als Teil der Intervention, Nebenwirkung oder Outcome einer Sekundäranalyse	44 (16,6)
Reviews oder andere Sekundärliteratur	42 (15,8)
unpassende Personengruppe, vor allem Kinder, Menschen mit geistiger Behinderung, hirnorganischer Störung oder Demenz	36 (13,6)
keine klar umschriebene Intervention berichtet	32 (12,1)
Einzelfallberichte oder rein qualitative Studien ohne Daten zur Häufigkeit/Dauer von Zwangsmaßnahmen	26 (9,8)
mangelnde Datenqualität, d.h. weder Baseline noch Follow-up, kein sinnvoller Vergleich zwischen Intervention und fehlender Intervention (Standardbehandlung) bzw. vor und nach Intervention möglich	12 (4,5)
nicht mit dem deutschen Versorgungssystem kompatibles Setting, wie amerikanische Emergency Rooms oder ambulante Zwangsbehandlung in Großbritannien und Skandinavien	9 (3,4)
Sonstiges	12 (4,5)
∑	265 (99,9)

Deeskalation und Mitarbeiterschulungen (Rater: Christine Wichmann (Doktorandin), Sophie Hirsch):

PICO-Schema und Suchstring

PICO-Schema und Suchstring

Anhand des (bereits erwähnten) PICO-Schemas wurde (ebenfalls) ein Suchstring erstellt, dessen Schwerpunkt *evidenzbasierte* Trainingsprogramme und Mitarbeiterschulungen zum Umgang mit aggressivem Verhalten bei Menschen mit psychischen Erkrankungen sein sollten. Zur besseren Vergleichbarkeit der Personengruppen der einzelnen Reviews des Updates der S2 Leitlinie wurden sowohl für das Review zu Trainingsprogrammen, als auch im Rahmen der Reviews zur Reduktion freiheitsbeschränkender Massnahmen und Medikation zur Behandlung aggressiven Verhaltens dieselben trunkierten Such- und Schlagwörter zur

Beschreibung des gesuchten Personenkreises verwendet. Dies entspricht dem „P“ („Person“) gemäss PICO- Schema.

Weiter wurde anstelle der zu untersuchenden Vergleichsintervention „C“ („Comparison“) das PICO-Schema modifiziert und um englischsprachige Trainingsbegriffe und MeSH-Terms (Medical Subject Headings) diesbezüglich erweitert. Auf diese Weise entstand folgende Tabelle XX mit Stich- und Schlagworten:

P (Person)	**I (Intervention)**	**C (Comparison)**	**O (Outcome)**	**Trainings-begriffe**
mental*	hold*		violen*	train*
psychiatr*	restrain*		aggress*	teach*
schizo*	seclu*		anger*	educat*
autis*	self-defen*		agitat*	learn*
delir*	self-protec*		hostil*	
dement*	defen*		injur*	
intellect*	breakawa*		seclu*	
brain injur*	conflict-resol*		coerci*	
bipolar*	conflict solv*		restrain*	
	de-escalat*		sick*	
	coerci*		distress*	
	prevent*			
MeSH-Terms (Medical Subject Headings) als Thesauren von *Medline*				
affective psychosis, bipolar	physical restraint		aggression	education [Subheading]
behavior disorder, disruptive			violence	
impulse control disorders			anger	
mood disorders			psychomotor agitation	
neurocognitive disorders			hostility	
neurodevelopmental disorders			physical restraint	
personality disorders				
paranoid disorders				
psychotic disorders				
Schizophrenia				

post traumatic stress disorders				

Anhand dieses Schemas wurde mittels der Booleschen Operatoren *AND* („UND“) und *OR* („ODER“) jeweils der Suchstring für die Datenbanken Medline und Cinahl konfiguriert. Dabei mussten die einzelnen Wörter und MeSH-Terms innerhalb einer Spalte des PICO-Schemas mit dem Operator *OR* verbunden werden und im Titel und/oder der Zusammenfassung („Abstract“) wiederzufinden sein. Mittels dieses Operators werden Artikel in die Suche eingeschlossen, welche entweder das eine oder das andere, sowie beide miteinander verknüpften Wörter beinhalten. Weiter erfolgte eine Verknüpfung der jeweiligen Spalten durch den Operator *AND*, welcher nur Artikel berücksichtigt, die sowohl Terme der einen, als auch der anderen Spalte der PICO-Schemas enthalten. Negationen (*NOT* („NICHT“)) und ausschliessende Operatoren (*XOR* („ENTWEDER…, ODER“)) wurden bewusst nicht verwendet, um so fälschlicherweise keine Artikel, welche beispielsweise ein Wort oder einen Wortbestandteil in einem anderem Zusammenhang enthielten, auszuschliessen.

Auf diese Weise entstanden 2 verschiedene Suchstrings unter Berücksichtigung der Tatsache, dass die Datenbank Cinahl keine MeSH-Terms verwendet.

<u>Suchterm Medline:</u>

(((((((((((((((((((((((mental[Title/Abstract]) OR psychiatr*[Title/Abstract]) OR schizo*[Title/Abstract]) OR autis*[Title/Abstract]) OR delir*[Title/Abstract]) OR dement*[Title/Abstract]) OR intellect*[Title/Abstract]) OR brain injur*[Title/Abstract]) OR bipolar*[Title/Abstract]) OR affective psychosis, bipolar[MeSH Terms]) OR post traumatic stress disorders[MeSH Terms]) OR Schizophrenia[MeSH Terms]) OR psychotic disorders[MeSH Terms]) OR paranoid disorders[MeSH Terms]) OR Personality disorders[MeSH Terms]) OR Neurodevelopmental disorders[MeSH Terms]) OR Neurocognitive disorders[MeSH Terms]) OR mood disorders[MeSH Terms]) OR impulse control disorders[MeSH Terms]) OR behavior disorder, disruptive[MeSH Terms])))) AND ((((((((((((hold*[Title/Abstract]) OR coerci*[Title/Abstract]) OR de-escalat*[Title/Abstract]) OR conflict solv*[Title/Abstract]) OR conflict-resol*[Title/Abstract]) OR breakawa*[Title/Abstract]) OR defen*[Title/Abstract]) OR self-protec*[Title/Abstract]) OR self-defen*[Title/Abstract]) OR seclu*[Title/Abstract]) OR restrain*[Title/Abstract]) OR physical restraint[MeSH Terms]))) AND (((((((((((((((((violen*[Title/Abstract]) OR prevent*[Title/Abstract]) OR distress*[Title/Abstract]) OR sick*[Title/Abstract]) OR restrain*[Title/Abstract]) OR coerci*[Title/Abstract]) OR seclu*[Title/Abstract]) OR injur*[Title/Abstract]) OR hostil*[Title/Abstract]) OR agitat*[Title/Abstract]) OR anger*[Title/Abstract]) OR aggress*[Title/Abstract]) OR aggression[MeSH Terms]) OR physical restraint[MeSH Terms]) OR hostility[MeSH Terms]) OR psychomotor agitation[MeSH Terms]) OR anger[MeSH Terms]) OR violence[MeSH Terms]))) AND (((((train*[Title/Abstract]) OR learn*[Title/Abstract]) OR educat*[Title/Abstract]) OR teach*[Title/Abstract]) OR education[MeSH Subheading])*

<u>Suchterm Cinahl:</u>
(TI (mental OR psychiatr* OR schizo* OR autis* OR delir* OR dement* OR intellect* OR brain injur* OR bipolar*) OR AB (mental* OR psychiatr* OR schizo* OR autis* OR delir* OR dement* OR intellect* OR brain injur* OR bipolar*)) AND (TI (hold* OR coerci* OR de-escalat* OR conflict solv* OR conflict-resol* OR breakawa* OR defen* OR self-protec* OR self-defen* OR seclu* OR restrain*) OR AB (hold* OR coerci* OR de-escalat* OR conflict solv* OR conflict-resol* OR breakawa* OR defen* OR self-protec* OR self-defen* OR seclu* OR restrain*)) AND (TI (violen* OR prevent* OR distress* OR sick* OR restrain* OR coerci* OR seclu* OR injur* OR hostil* OR agitat* OR anger* OR aggress*) OR AB (violen* OR prevent* OR distress* OR sick* OR restrain* OR coerci* OR seclu* OR injur* OR hostil* OR agitat* OR anger* OR aggress*)) AND (TI (train* OR learn* OR educat* OR teach*) OR AB (train* OR learn* OR educat* OR teach*))*

<u>Auswahl der Suchergebnisse</u>
Im nächsten Schritt wurden mit Hilfe dieser konfigurierten Suchstrings die Datenbanken Medline und Cinahl durchsucht und die gefundenen Ergebnisse in das Literaturverwaltungsprogramm Citavi (Version 5.3) importiert und übernommen. Mittels Citavi konnten Publikationen, welche durch den Suchstring sowohl in Medline, als auch Cinahl gefunden wurden, als doppelt vorkommende Publikationen erkannt und als sogenannte Dubletten ausgeschlossen. Anschliessend erfolgte unter Berücksichtigung der bereits im Vorfeld festgelegten Ein- und Ausschlusskriterien zunächst die Durchsicht der Titel und Zusammenfassungen der Suchergebnisse (Title/Abstract-Screening). Konnte so eine Publikation nicht eindeutig für passend oder unpassend erklärt werden musste im nächsten Schritt der gesamte Artikel im sogenannten Volltext-Screening gelesen und erneut anhand der Ein- und Ausschlusskriterien als geeignet oder ungeeignet bewertet werden.

<u>Ein- und Ausschlusskriterien</u>
Eingeschlossen wurden alle Studien, welche mindestens eine Trainings-/Schulungsmaßnahme des Personals als Intervention zum Management von aggressivem Verhalten bei Patientinnen und Patienten mit einer psychischen Erkrankung beinhalteten. Dabei wurden rein präventive Maßnahmen beispielsweise im Sinne von Beruhigung des aggressiven Patienten durch äußere Einflüsse wie dem Offen-stehen-lassen einer Türe, einer bestimmten Wandfarbe oder bestimmten Gegenständen im Umfeld des Patienten, ohne einen aktiven Trainingsaspekt der Mitarbeiter ausgeschlossen. Weiter wurden reine Medikamentenstudien zum Management bei aggressivem Verhalten ausgeschlossen. Eingeschlossen wurden nur Patientinnen und Patienten, welche unter einer psychischen Erkrankung gemäß internationaler Klassifikation psychischer und Verhaltensstörungen der ICD-10-WHO (World Health Organisation) Version 2016 leiden (vgl. Horst Dilling: *Internationale Klassifikation psychischer Störungen. ICD-10 V (F). Klinisch-diagnostische Leitlinien.* 10. Auflage. Hogrefe, 2015, ISBN 978-3-456-85560-8). Zu diesen Patientinnen und

Patienten mit psychischen Störungen wurden unter anderem Menschen mit einer Psychose/Schizophrenie und bipolaren Störung gezählt. Weiter gehörten Menschen mit Verhaltensauffälligkeiten und Persönlichkeitsstörungen (beispielsweise Borderline-Persönlichkeitsstörung) dazu, ebenso wie neurokognitive Störungen, um so nicht zuletzt auch den geriatrisch-psychiatrischen Personenkreis mit abzudecken. Da im Vorfeld des systematischen Reviews davon auszugehen war, dass veröffentlichte Publikationen insbesondere auf Daten aus Beobachtungsstudien beruhen würden, wurde bezüglich des Formenkreises der psychischen Störungen eine klinische Diagnosestellung als ausreichend erachtet. Folglich war eines der Ausschlusskriterien Patientinnen und Patienten, bei denen keine psychische Störung gemäß internationaler Klassifikation vorlag. Ein weiteres Ausschlusskriterium waren Studien und Publikationen, in welchen insbesondere oder ausschließlich Kinder und Jugendliche vor Vollendung des 18. Lebensjahres als Patientenklientel untersucht wurden. Hierbei galt es jedoch zu beachten, dass Veröffentlichungen, in welchen sowohl Kinder und Jugendliche, als auch Erwachsene zum Patientenklientel gehörten, klar und nachvollziehbar der Anteil der erwachsenen Patienten gegenüber dem Anteil minderjähriger Patienten überwiegen musste. Ausgeschlossen wurden in diesem Sinne auch Publikationen welche aggressives Verhalten in Tieren/ Tierversuchen zum Thema hatten.

Weiter wurden nur Studien eingeschlossen, die örtlich klar einer psychiatrischen/medizinischen Institution zuzuordnen waren, sowie Orte im Sinne einer Betreuungseinrichtung und des gesundheitlichen Versorgungssystems. Ausgeschlossen wurden daher Studien, welche beispielsweise aggressives Verhalten unter Soldaten in militärischen Lagern untersuchten.
Darüber hinaus wurden lediglich Studien berücksichtigt, welche neben dem Titel und der Zusammenfassung auch in der Publikation selbst in deutscher oder englischer Sprache veröffentlicht wurden. D. h. ausgeschlossen wurde alle nicht-deutsch- und nicht-englischsprachige Literatur.

Nicht mit eingeschlossen wurden zudem Veröffentlichungen im Sinne vom Leserbriefen, Kommentaren und Zeitschriftenaufsätzen, welche beispielsweise lediglich eine Empfehlung zur Einführung einer Trainingsmaßnahme abgaben, ohne jedoch konkret eine Intervention zu beschreiben oder deren Wirksamkeit zu messen.
Ausgeschlossen wurden außerdem Peer-Reviews zur Fragestellung, um so Wiederholungen der einzelnen Studien zu vermeiden und das Risiko der internen Bias zu vermindern.

Freie Frage:
Lassen sich Prediktoren finden, die Gewalt psychisch Erkrankter gegen ihre Angehörigen voraussagen?
Was für Auswirkungen/Konsequenzen/Outcome hat die Gewalt psychisch Erkrankter auf die Angehörigen?

Fragekomponenten	**Einschlusskriterien**	**Ausschlusskriterien**
-**Die Population**:		
Freitext-Suche/Trunkierung:		
	-mental*	
	(mental disorders, mental illness,…)	NICHT mental health
	-psychiatr*	
	-schizo*	
	-autis*	-Autismus ja, aber meistens
handelte		es sich um Kinder,
Ausschluss Youth,		Child, <18 years old
	-delir*	-Drogen- und Alkohol Abusus als
		Co-Erkrankung ja, ABER NICHT
		Alkoholismus oder Drogen
alleine		
	-dement*	
	(jede Art von Demenz, meistens Alzheimer D.)	
	-intellect*	
	-brain injur*	-KEIN Schlaganfall
	-bipolar	
Thesaurus-Suche:		
	-Affective psychosis, bipolar	-keine unipolare Depression, keine
		post-partum Depression
	-Behavior disorder, disruptive	
	-Impulse control disorders	
	-Mood disorders	
	-Neurocognitive disorders	
	-Personality disorders	-Aber NICHT Compulsive
personality		disorder ->meistens Kinder,
		NICHT Borderline personality
disorder		
	-Paranoid Disorders	
	-Psychotic Disorders	
	-Schizophrenia	
	u.a. auch „First episode psychosis"	
	-Post-traumatic stress disorder	
-**Die Interventionen:**		
	-**Prädiktoren, die zur Gewalt führen**,	
	NUR solche GEGEN Angehörige, Z.B:	

Family, relative, informal caregiver NICHT formal caregiver
NICHT: gegen
„Practionners“, „nursing
staff“, andere Patienten,
den psychisch Kranken Patienten
selbst (NICHT victimisation)

-**Setting**: community,
outpatient setting NICHT inpatient clinic
at home NICHT hospital

-**Der Endpunkt**:

-**Gewalt:**

!: elder abuse: meistens Gewalt der Angehörigen gegen die älteren, kranken Menschen
!: intim partner violence: meistens ist die psychische Erkrankung ein Prädiktor dafür ein Gewaltopfer zu werden.

-**Outcome für den Angehörigen**
meistens durch den Begriff „Burden“ NICHT Outcome des Patienten (Rückfall etc.)

-**Die Studiendesigns**:

-Befragung von Angehörigen
oder Patienten
(mit quantitativen Angaben) -**NICHT**, wenn es keine quantitativen Angaben zu den Gruppen gab

-**KEINE** Editorials, Briefe, Bucheinträge
-**KEINE** Einzelfallberichte, -serien
-**KEINE** Sekundäranalysen*, Auswertungen von medizinischen Akten
*<u>Ausnahme:</u> wenn Primär-studie Thema behandelt, dann Einschluss

-**KEINE** Reviews

Durchführung der Suche in Medline und Cinahl

Die Suche erfolgte am 22. Oktober 2017 und lieferte 1467 Treffer bei Medline und 523 Treffer bei Cinahl. Nach Entfernung der doppelten Publikationen (n= 276) verblieben 1715 Artikel. (Fortsetzung folgt)

Gewalt gegen Angehörige (Rater: Hannah Rafalski (Doktorandin), Sophie Hirsch):

Für dieses Review, das im Rahmen einer Dissertation erstellt wurde, wurden folgende Datenbanken für die folgenden Zeiträume über die Suchoberfläche Ovid durchsucht.

- MEDLINE <1946 to Present> (diese Version enthält alle Treffer bis zum aktuellsten Fund): enthält vor allem angloamerikanische Journale
- Embase <1974 to x.x.x> (hier die Version, die bis zum vorherigen Tag aktuell ist): hat eine europäische Ausrichtung (und pharmakologischen Schwerpunkt).
- PsycINFO <1806 to x.x.x> (hier die Version, die bis zum geltenden Monat aktuell ist): Verzeichnis der Literatur zu Psychologie, Verhaltens- und Sozialwissenschaften
- PsyndexPLUS -Literature and Audiovisual Media <1977 to x.x> (Version, die bis zum geltenden Vormonat aktuell ist, Version mit Tests für meine Fragestellung nicht zielführend): Schwerpunkt auf deutschsprachigen Ländern

In einem vorgelagerten Schritt wurde eine Pilotsuche mit der Funktion „Basic Search" durchgeführt, um den Suchterm zu optimieren. Im nächsten Schritt wurde dann wie bei den anderen Suchen mit der Funktion „Advanced Search" nach trunkierten Stichworten und nach Schlagworten (neben Medical Subject Headings für Medline auch mit Subject Headings für Embase) gesucht.

Da in diesem Review epidemiologische Fragestellungen beantwortet werden sollten (Was sind Risikofaktoren für häusliche Gewalt/Gewalt gegen Angehörige durch psychisch erkrankte Menschen? Wie häufig ist sie? Welche Folgen hat sie?), wurde nicht auf das auf Interventionsstudien ausgelegte PICO-Schema zurückgegriffen. Stattdessen wurde das MIP-Schema verwendet.
M-Methodology
I-Issue
P-Participants

Dann wurde entsprechend vorgegangen, d.h. innerhalb der Spaten wurde mit dem Bool'schen Operator OR verknüpft, die Spalten untereinander wurden mit AND verknüpft.

Suchstrategie

Database:

Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>,

Embase <1974 to 2017 Augst 07>,

PsycINFO <1806 to July Week 5

Search Strategy: 08.08.2017

1 Risk Factors/ (1247403)
2 Prevalence/ (794779)
3 „Survey and Questionnaires“/ (930526)
4 predict*.ti. or predict*.ab. (3319044)
5 „Outcome and Process Assessment (Health Care)“/ (740394)
6 burd*.ti. or burd*.ab. (423959)
7 consequen*.ti. or consequen*.ab. (1317384)
8 1 or 2 or 3 or 4 or 5 or 6 or 7 (7739036) *(alles zu M)*
9 Domestic Violence/ or Violence/ or Intimate Partner Violence/ (128317)
10 Spouse Abuse/ or Elder Abuse/ or Physical Abuse/ (32020)
11 Expressed Emotion/ (85537)
12 violent*.ti. or violent*.ab. (180575)
13 aggressi*.ti. or aggressi*.ab. (490950)
14 abus*.ti. or abus*.ab. (392959)
15 9 or 10 or 11 or 12 or 13 or 14 (1109873) *(alles zu I-violence)*
16 Family/ (202837)
17 Family Relations/ (52353)
18 Caregivers/ (91275)
19 caregiv*.ti. or caregiv*.ab. (162211)
20 16 or 17 or 18 or 19 (422960) *(alles zu I-family)*
21 mental*.ti. or mental*.ab. or psychiatr*.ti. or psychiatr*.ab. or schizo*.ti. or schizo*.ab. or autis*.ti. or autis*.ab. or delir*.ti. or delir*.ab. or dement*.ti. or dement*.ab. or intellect.ti. or intellect.ab. or brain injur*.ti. or brain injur*.ab. or bipolar.ti. or bipolar.ab. (2552958)
22 mental disorders/ or bipolar disorders/ or „disruptive, impulse control, and conduct disorders“/ or mood disorders/ or neurocognitive disorders/ or personality disorders/ or affective disorders, psychotic/ or paranoid disorders/ or psychotic disorders/ or schizophrenia/ or „trauma and stressor related disorders“/ (809606)
23 21 or 22 *(alles zu P-patients)*
24 8 and 15 and 20 and 23 (4674)*(Suche in Medline)*
25 prediction/ (311999)
26 emotional abuse/ or sexual abuse/ (41897)

27 caregiver burden/ or caregiver support/ (203762)
28 mental disease/ or attitude to mental illness/ (203763)
29 8 or 25 (7766642) *(alles zu M)*
30 15 or 26 (1118286) *(alles zu I-violence)*
31 20 or 27 (425061) *(alles zu I-family)*
32 23 or 28 (2825092) *(alles zu P-patients)*
33 29 and 30 and 31 and 32 (4859) (Suche mit Anpassung zusätzlich in Embase)
34 24 or 33 (4859) *(endgültiger Suchterm, da es keiner Anpassung in PsycINFO bedurfte)*
35 remove duplicates from 34 **(3755)** ***(Endtreffer)***
Anmerkungen:
M – Methodology
I – Issue: Family & Violence
P – Paticipants: patients with mental disorders

Suchstrategie
Database: **additional** PSYNDEXplus Literature and Audiovisual Media <1977 to July 2017>
Auszug:
…
34 Gewalt*.ti. or Gewalt.ab. (7438)
35 psychi*.ti. (296543)
36 Famil*.ti. (551687)
…. (Verknüpfung mit den Blöcken I-violence, I-family und P)
44 37 or 39 or 43 (8477) (alle Suchen zusammen: angepasste Medline, Embase und PSYNDEXplus Suche, in PsycINFO ist keine Anpassung erfolgt)

Problem und Handhabung:
Durch die Anpassung der Suchstrategie an PSYNDEXplus (deutsche Verschlagwortung) wurde die Suche für PSYNDEXplus genauer und erreichte eine größere Trefferzahl, für die anderen Datenbanken wurde die Suche aber zu offen, zu vage. Es ergab sich hierdurch eine Trefferzahl von 8477, statt 3664.
Deshalb wurden von Schritt 44 die Dubletten entfernt und anschließend die Treffer in PSYNDEXplus, an der Zahl 161, exportiert. Die Hauptsuche wurde dann ohne PSYNDEXplus und ihre Anpassung durchgeführt.
Anmerkung zur Dublettenentfernung: Da in OVID die Dublettentfernung nur bis 6000 Treffern möglich ist, wurde eine Dublettenentfernung einzeln in der Medline- und Embase-Suche durchgeführt. In einem zweiten Schritt dann:
50 44 (=8477) not (37 (Medline Anpassung) or 39 (Embase Anpassung)): (5520)
51 remove duplicates from 50 (4449)
52 46 (Medline ded.) or 47 (Embase ded.) or 51 **(6759) (Endtreffer)**

- ➔ Embase
- ➔ Medline
- ➔ PsycINFO

➔ PSYNDXplus: 161 Treffer

Suchstrategie CINAHL EBSCO HOST: 21.08.2017

S1 (MH „Surveys“) OR (MH „Risk Factors“) (231,487)

S2 (MH „Prevalence“) (64,374)

S3 (MH „Outcome Assessment“) (39,443)

S4 S1 OR S2 OR S3 *(Thesaurus (MH) für M)*

S5 (MH „Homicide“) OR (MH „Violence“) OR (MH „Domestic Violence“) OR (MH „Exposure to violence“) OR (MH „Verbal Abuse“) OR (MH „Aggression“) (30,989) *(Thesaurus für I-violence)*

S6 (MH „Family“) OR (MH „Patient-Family Relations“) OR (MH „Family Functioning“) (35,763) *(Thesaurus für I-family)*

S7 (MH „Caregiver Burden“) (7,492) *(Thesaurus für I-family)*

S8 (MH „Mental Disorders“) OR (MH „Neurotic Disorders“) OR (MH „Affective Disorders“) OR (MH „Dissociative Disorders“) OR (MH „Impulse Control Disorders“) OR (MH „Psychotic Disorders“) OR (MH „Affective Disorders, Psychotic) OR (MH „Bipolar Disorders“) OR (MH „Dementia“) OR (MH „Paranoid Disorders“) OR (MH „Schizoaffective Disorders“) OR (MH „Schizophrenia“) OR (MH „Acting Out“) (110,580) *(Thesaurus für P)*

S9 TI (mental* OR psychiatr* OR schizo* OR delir* OR dement* OR intellect* OR brain injur* OR bipolar*) OR AB (mental* OR psychiatr* OR schizo* OR delir* OR dement* OR intellect* OR brain injur* OR bipolar*) (240,715) *(Freitextsuche mit Trunkierung in Title (TI) und Abstract (AB) für P)*

S10 S8 OR S9 (277,690) *(Thesaurus und Freitextsuche für P zusammen)*

S11 S6 OR S7 (41,405) *(Thesaurus für I-family zusammen)*

S12 TI (violen* OR aggressi* OR abus*) OR AB (violen* OR aggressi* OR abus*) (93,236) *(Freitextsuche mit Trunkierung für I-violence)*

S13 S5 OR S12 (105,266) *(Thesaurus und Freitextsuche mit Trunkierung für I-violence zusammen)*

S14 TI caregiv* OR AB caregiv* (35,053) *(Freitextsuche mit Trunkierung für I-famiy)*

S15 S11 OR S14 (69,058) *(Thesaurus und Freitextsuche mit Trunkierung für I-famiy)*

S16 S13 AND S15 (3,222) *(„I-violence“ UND „I-family“ zusammen)*

S17 TI (predict* OR burd* OR consequen*) OR AB (predict* OR burd* OR consequen*) (329,728) *(Freitextsuche mit Trunkierung für M)*

S18 S4 OR S17 (590,775) *(Thesaurus und Freitextsuche mit Trunkierung für M)*

S19 S10 AND S16 AND S18 (390) *(„P“ AND „I“ AND „M“)*

Annotation: M (= Methodology), I (= Issue), P (= Participants)

Gesucht wurde am 12.07.2017. **Insgesamt ergaben sich nach Entfernung der Dubletten 4226 Treffer, davon wurden 223 Artikel nach dem Title-Abstract-Screening in das Fulltext-Screening aufgenommen und letztendlich 27 Studien in die Leitlinie eingeschlossen (s Anhang).**

Auswahl der Evidenz S2e S3

Grundsätzlich wurden alle Studientypen außer Einzelfallberichte eingeschlossen. Nicht eingeschlossen wurden ferner rein theoretische Abhandlungen, normative Stellungnahmen oder Gerichtsurteile. Ebenfalls ausgeschlossen wurde graue Literatur wie beispielsweise unveröffentlichte Dissertationen. Bezüglich der Sprachen wurden primär keine Einschränkungen gemacht (im Verlauf mussten eine japanische und eine türkische Studie wegen Übersetzungsproblemen ausgeschlossen werden). Alle Artikel, die inhaltlich und methodisch den Einschlusskriterien entsprachen, wurden eingeschlossen. Jeweils die methodisch am höchsten bewerteten Studie (s. u. „Bewertung der Evidenz") wurde für die Ableitung der Empfehlung verwendet. Widersprüchliche Ergebnisse wurden im Hintergrundtext dargestellt. Die jeweiligen die Empfehlung begründenden Literaturstellen und die Begründungen für die Ableitung einer entsprechenden starken Empfehlung/Empfehlung/eines Vorschlags finden sich direkt bei den entsprechenden Empfehlungen in der Leitlinie.

Bewertung der Evidenz S2e S3

Die Evidenz-Ebenen werden in Anlehnung an die Empfehlungen des Oxford Centre for Evidence-Based Medicine wie folgt definiert:

Evidenzgrad 1: Systematisches Review, das mehrere randomisierte kontrollierte Studien (RCTs) einschließt
Evidenzgrad 2: Randomisierte kontrollierte Studie oder Beobachtungsstudie mit dramatischem Effekt
Evidenzgrad 3: Nicht-randomisierte kontrollierte Studie
Evidenzgrad 4: Vorher-Nachher-Vergleiche, Fall-Kontroll-Studien, Fallserien
Evidenzgrad 5: Theoretisch hergeleitete Empfehlungen, Expertenmeinungen

Das Bewertungssystem ist im Internet unter http://www.cebm.net/wp-content/uploads/2014/06/CEBM-Levels-of-Evidence-2.1.pdf abrufbar.

Erstellung von Evidenztabellen S2e S3

Tabellen mit den einzelnen im Rahmen der systematischen Evidenzrecherche und -bewertung eingeschlossenen Studien finden sich im Anhang dieses Leitlinienreports.

Formulierung der Empfehlungen und strukturierte Konsensfindung

Die einzelnen Kapitel wurden vom Koordinator und der Redakteurin bzw. beauftragten Experten aus der Leitliniensteuerungsgruppe erstellt. Die Autoren stellten die aktuellen wissenschaftlichen Daten zusammen und formulierten die Entwurfstexte.

Anhand der Texte wurden vom Leitlinienkoordinator Vorschläge für Empfehlungen gemacht. Die Entwürfe wurden allen Mitgliedern der Leitliniensteuerungsgruppe mit Hilfe einer Cloud online sowie per E-Mail zur Kommentierung zur Verfügung gestellt. Die Kommentare und Korrekturvorschläge wurden von der Redakteurin eingearbeitet. **So entstanden in einem mehrstufigen Prozess im Sinne eines Delphiverfahrens Texte und Empfehlungen, die dann in zwei Treffen der Leitliniensteuerungsgruppe diskutiert, mittels Handzeichen abgestimmt und zur Vorstellung bei der Konsensusgruppe verabschiedet wurden.** Sowohl in der Leitliniensteuerungsgrupppe als auch in der Konsensusgruppe waren sowohl Experten (Forschende aus den Bereichen Sozialpsychiatrie, Patientenautonomie, Pflegewissenschaften, Medizinethik und –recht) als auch Anwender (Ärztinnen und Ärzte, Psychologinnen und Psychologen, Pflegende, gesetzliche Betreuer) sowie Patientinnen und Patienten und ihre Angehörigen beteiligt.

Die Treffen der Leitliniensteuerungsgruppe fanden am 07.07.2016 und 28.06.2017 in Berlin und am 12.12.2017 in Frankfurt am Main statt. Die Konsensuskonferenz fand am 12.02.2018 in Berlin statt. Die Treffen wurden vorab mittels des Onlinetools doodle festgelegt und die Teilnehmenden per E-Mail eingeladen.

Formale Konsensfindung: Verfahren und Durchführung S2k S3

Die so von der Leitliniensteuerungsgruppe erarbeiteten Empfehlungen wurden dann der Leitlinienkonsensusgruppe online (mittels der Plattform Surveymonkey) zur Vorabstimmung zur Verfügung gestellt. Mitglieder der Konsensusgruppe, die einer Empfehlung nicht zustimmten, konnten online Alternativvorschläge für diese Empfehlung einreichen. Insgesamt gaben 18 der 22 Mandatsträger ihre Stimme ab.

Die Empfehlungen, bei denen online kein Konsens erzielt werden konnten, wurden dann im Rahmen der Konsensuskonferenz diskutiert und ggf. geändert. Diese Empfehlungen und die jeweiligen Alternativvorschläge aus der Onlineumfrage wurden dann in der Konsensuskonferenz erneut mittels Handzeichen im Sinne **eines nominalen Gruppenprozesses** abgestimmt. Zusätzlich wurden Empfehlungen mit knappem Konsens oder vielen Enthaltungen nach Beratschlagung mit der AWMF in der Konferenz diskutiert und teilweise ebenfalls erneut abgestimmt. An der Konferenz nahmen 25 Expertinnen und Experten, davon 20 Mandatsträger, die insgesamt 21 Stimmen hatten (Herr Thomas Pollmächer stimmte wegen des kurzfristigen Ausfalls von Herrn Felix Hohl-Radke doppelt ab, für BDK und DGPPN), teil.

Durch dieses Vorgehen sollte verhindert werden, dass in der Konsensuskonferenz ein zu hoher Zeitdruck entsteht, insbesondere den strittigen Punkten zu wenig Zeit eingeräumt wird und Standpunkte der verschiedenen Parteien nicht geklärt werden.

Sowohl der nominale Gruppenprozess in der Konsensuskonferenz als auch die Diskussionen und Abstimmungen in der Leitliniensteuerungsgruppe wurden von Frau Dr. Nothacker als erfahrene und neutrale Mitarbeiterin der AWMF moderiert.

Die Stärke des Konsenses ist bei den jeweiligen Empfehlungen direkt in der Leitlinie vermerkt.

Starker Konsens	> 95 % der Teilnehmenden	Annahme der Empfehlung
Konsens	> 75 %-95 %	
Mehrheitliche Zustimmung	> 50 %-75 %	Ablehnung der Empfehlung
Kein Konsens	<= 50 %	

Ab mindestens 16 Zustimmungen wurde ein Konsens, ab mindestens 20 Zustimmungen ein starker Konsens erreicht.

Berücksichtigung von Nutzen, Nebenwirkungen-relevanten Outcomes
Klinische Relevanz
Die klinische Relevanz kann die Einstufung einer Empfehlung beeinflussen. Als Resultat eines Expertenkonsenses kann zum Beispiel eine Empfehlung auch ohne hierarchisch hochstehende Evidenzklasse einem hohen Empfehlungsgrad zugeordnet werden, wenn dies die Lösung eines Versorgungsproblems erfordert (www.versorgungsleitlinien.de).

Entsprechende Herauf- und Herabstufungen finden sich direkt bei den jeweiligen Empfehlungen.

Formulierung der Empfehlungen und Vergabe von Evidenzgraden und/ oder Empfehlungsgraden S2k S3

Starke Empfehlung, Soll- Empfehlung, Empfehlungsgrad A: Eine Behandlungsmethode erhält die Empfehlungsstärke A, wenn zu der Methode Studien der Kategorie 1 oder 2 vorliegen (s. o. „Evidenzgrade“).

Empfehlung, Sollte-Empfehlung, Empfehlungsgrad B: Eine Behandlungsmethode erhält die Empfehlungsstärke B, wenn zu der Methode Studien der Kategorie 3 oder 4 vorliegen. (Wenn eine Studie der Kategorie 1 oder 2 vorliegt, aus der die Empfehlung für eine Methode extrapoliert werden muss, bspw. weil andere Populationen oder Settings untersucht wurden, dann erhält sie ebenfalls die Empfehlungsstärke B)

Vorschlag, Kann-Empfehlung, Empfehlungsgrad 0: Eine Behandlungsmethode erhält die Empfehlungsstärke C, wenn zu der Methode Studien der Kategorie 5 vorliegen. (Wenn Studien der Kategorie 3 oder 4 vorliegen, aus der die Empfehlung für eine Methode

extrapoliert werden muss, dann erhält sie ebenfalls die Empfehlungsstärke C)

Abweichungen sind bei entsprechendem Expertenkonsens möglich, wobei hier ethische, kulturelle, wirtschaftliche Aspekte sowie Sicherheit und Patientenpräferenzen mit einbezogen werden.

Expertenkonsens

Wenn es für eine Behandlungsmethode keine experimentellen wissenschaftlichen Studien gibt, diese nicht möglich sind oder nicht angestrebt werden, das Verfahren aber dennoch allgemein üblich ist und innerhalb der Konsensusgruppe eine Übereinkunft über das Verfahren erzielt werden konnte, so erhält diese Methode die Empfehlungsstärke Expertenkonsens.

Statement

Allgemeine Begriffsdefinitionen, Studienergebnisse, Expertenmeinungen und deren Erklärung, die aber nicht direkt in eine Empfehlung münden.

4. Externe Begutachtung und Verabschiedung

Pilottestung

Auf eine Pilotierung wurde verzichtet, da es sich bei der Leitlinie um ein Update und Upgrade einer bestehenden Leitlinie handelt und Expertinnen und Experten, die bereits bei der letzten Version beteiligt waren und die Umsetzbarkeit in der Praxis bereits erprobt hatten, einbezogen wurden.

Verabschiedung durch die Vorstände der herausgebenden Fachgesellschaften/Organisationen S2k S2e S3

Nach der Konsensuskonferenz und einer vierwöchigen Frist zur Prüfung des Textes durch die Mandatsträger, wurde die Endversion erneut an die Mandatsträger verschickt zur Vorlage bei und der Verabschiedung der Texte durch die Vorstände ihrer Fachgesellschaften.
Der Bundesverband der Psychiatrie-Erfahrenen (BPE) hat der Endfassung der Leitlinie nicht zugestimmt. Der offenen Brief des Verbandes findet sich am Ende dieses Leitlinienreports.

5. Redaktionelle Unabhängigkeit

Finanzierung der Leitlinie S2k S2e S3

Die Leitlinie wurde von der Deutschen Gesellschaft für Psychiatrie und Psychotherapie, Psychosomatik und Nervenheilkunde (DGPPN) in Auftrag gegeben. Es wurden eine halbe Stelle für eine wissenschaftliche Mitarbeiterin über 3 Jahre (insgesamt 90.000 Euro plus MwSt) und Reisekosten (insgesamt 3000 Euro) bezahlt. Die DGPPN war durch Herrn Gerlinger und Herrn Professor Pollmächer in der Leitliniensteuerungsgruppe und durch Herrn Professor Pollmächer in der Konsensusgruppe mit einfacher Stimme vertreten. Ansonsten erfolgte keine Einflussnahme der finanzierenden Gesellschaft auf Inhalte der Leitlinie. Andere Geldgeber gab es nicht. Die Expertinnen und Experten der Leitliniensteuerungsgruppe arbeiteten ehrenamtlich bzw. verrichteten ihre Aufgaben im Rahmen ihrer hauptberuflichen Tätigkeit. Reisekosten trugen die entsendenden Organisationen, nur für Psychiatrieerfahrene wurden Reise- und Übernachtungskosten von der DGPPN bzw. dem ZfP Südwürttemberg übernommen.

Darlegung von und Umgang mit Interessenkonflikten S2k S2e S3

Die Interessenkonflikte wurden schriftlich mit Hilfe des von der AWMF angebotenen Musterformulars erhoben. Die Erhebung fand zu Beginn (2016) und zum Ende (2017) der Leitlinienerstellung unter den Mitgliedern der Leitliniensteuerungsgruppe (incl. Koordinator und wissenschaftlicher Mitarbeiterin) und vor Abstimmung der Empfehlungen unter den Mitgliedern der Konsensusgruppe (2018) statt. Folgende Interessenskonflikte wurden dabei erhoben.

Nr.	Erklärung
1	Berater- bzw. Gutachtertätigkeit oder bezahlte Mitarbeit in einem wissenschaftlichen Beirat eines pharmazeutischen, biotechnologischen bzw. medizintechnischen Unternehmens
2	Honorare für Vortrags- und Schulungstätigkeiten oder bezahlte Autoren- oder Koautorenschaften im Auftrag pharmazeutischer, biotechnologischer, medizintechnischer Unternehmen
3	Finanzielle Zuwendungen (Drittmittel) für Forschungsvorhaben, direkte Finanzierung von Mitarbeitenden der Einrichtung von Seiten kommerziell orientierter (pharmazeutischer, biotechnologischer bzw. medizintechnischer Unternehmen bzw. Auftragsinstitute) oder anderer Förderer
4	Eigentümerinteresse an Arzneimitteln/Medizinprodukten (z. B. Patent, Urheberrecht, Verkaufslizenz)

5	Besitz von Geschäftsanteilen, Aktien, Fonds mit Beteiligung pharmazeutischer, biotechnologischer bzw. medizintechnischer Unternehmen
6	Familiäre oder persönliche Beziehungen zu einem Vertretungsberechtigten eines pharmazeutischen, biotechnologischen bzw. medizintechnischen Unternehmens
7	Mitglied von in Zusammenhang mit der Leitlinienentwicklung relevanten Fachgesellschaften/ Berufsverbänden, Mandatsträger im Rahmen der Leitlinienentwicklung
8	Politische, akademische (z. B. Zugehörigkeit zu bestimmten therapeutischen „Schulen“) oder privat/persönliche Beziehungen, die Interessenskonflikte begründen könnten
9	Gegenwärtiger Arbeitgeber, relevante frühere Arbeitgeber der letzten 3 Jahre

Es wurde vom Leitlinienkoordinator nach Prüfung der Formulare empfohlen, dass Mitglieder mit finanziellen Verbindungen in die pharmazeutische Industrie bzw. in kommerzielle Deeskalations-/Sicherheitsschulungs- und Trainingsprogramme sich bei Abstimmungen zu den jeweiligen Themen enthalten. Dies wurde im nominalen Gruppenprozess bei der Konsensuskonferenz auch so umgesetzt. In der Online-Abstimmung im Vorfeld zur Konsensuskonferenz konnte die Umsetzung der Empfehlung durch die Mandatsträger nicht überprüft werden, da aus technischen Gründen nur eine anonyme Abstimmung möglich war. Die Interessenskonflikte des Leitlinienkoordinators und der wissenschaftlichen Mitarbeiterin wurden zudem von der DGPPN überprüft.

Die angegebenen Interessenskonflikte sind in den untenstehenden Tabellen aufgeführt (N= Nein, es besteht kein Interessenkonflikt in diesem Bereich, J= Ja, es bestehen Interessenskonflikte). Wenn Interessenskonflikte bestehen, sind diese am Ende der Tabellen genauer erläutert.

Deklarierte Interessensgruppe der Leitliniensteuerungsgruppe 2016 beim ersten Treffen

Name	1	2	3	4	5	6	7	8	9
Tilman Steinert	N	N	J	N	N	N	J	N	Zentrum für Psychiatrie Südwürttemberg
Sophie Hirsch	N	N	N	N	N	N	J	N	Zentrum für Psychiatrie Südwürttemberg
Matthias Albers	N	N	N	N	N	N	J	N	Stadt Köln
Ruth Fricke	N	N	N	N	N	N	J	N	Seit 2002 pensioniert, Bundesverband Psychiatrie-Erfahrener
Franziska Gaese	J	N	N	N	N	N	J	N	Isar Amper Klinikum München Ost
Gabriel Gerlinger	N	N	N	N	N	N	N	N	DGPPN
Reinhard Gielen	N	N	N	N	N	N	J	N	Asklepios Westklinikum/Zentrum für seelische Gesundheit
Tanja Henking	N	N	N	N	N	N	N	N	Hochschule für angewandte Wissenschaften Würzburg-Schweinfurt
Knut Hoffmann	N	N	N	N	N	N	J	N	LWL-Universitätsklinikum Bochum
Felix Hohl-Radke	N	N	N	N	N	N	J	N	Asklepios Fachklinikum Brandenburg
Regina Ketelsen	N	N	N	N	N	N	N	N	Evangelisches Klinikum Bethel, Klinik für Psychiatrie und Psychotherapie Bethel
Martin Kolbe	N	J	N	N	N	N	J	N	DGBS e. V.
Michael Mayer	N	N	N	N	N	N	J	J	Bezirkskrankenhaus Kaufbeuren, Allgäu-Akademie
Jürgen L. Müller	J	N	J	N	N	N	J	N	Uni Göttingen, Asklepios GmbH
Oliver Pogarell	J	J	N	N	N	N	J	N	Uniklinik München
Thomas Pollmächer	N	N	N	N	N	N	J	N	Klinikum Ingolstadt
Michael Schulz	J	J	N	N	N	N	J	N	Fachhochschule der Diakonie
Konrad Stolz	N	N	N	N	N	N	N	N	NN.
Jochen Vollmann	N	J	N	N	N	N	J	N	Ruhr-Universität Bochum
Christian Zechert	N	N	N	N	N	N	J	N	Evangelisches Krankenhaus Bielefeld (bis 02/2014), BApK e. V.

Tilman Steinert
3. Forum für Gesundheitswirtschaft, Bremen.. Finanzierung von Forschung zur Personalbesetzung in psychiatrischen Kliniken
7. Mitglied der DGPPN, European Violence in Psychiatry Research Group
→ Keine Stimme bei Konsensuskonferenz

Sophie Hirsch:
7. Mitglied bei DGPPN, European Violence in Psychiatry Research Group
→ Keine Stimme bei Konsensuskonferenz

Matthias Albers
7. BVÖGD, DGSP
→ Keine bedeutsamen Interessenskonflikte

Ruth Fricke
→ Keine bedeutsamen Interessenskonflikte
Gabriel Gerlinger
→ Keine bedeutsamen Interessenskonflikte

Reinhard Gielen
→ Leitliniensteuerungsgruppe vorzeitig verlassen aus persönlichen Gründen, keine Stimme in der Konsensuskonferenz

Tanja Henking
→ Keine bedeutsamen Interessenskonflikte

Knut Hoffmann
Leiter des Referats „Geistige Behinderung" der DGPPN
→ Keine bedeutsamen Interessenskonflikte

Felix Hohl Radke:
7. Vorstandsmitglied der BDK, in diesem Rahmen z.B. Teilnahme an der Task Force Patientenautonomie
→ keine bedeutsamen Interessenskonflikte

Regina Ketelsen:
→ keine bedeutsamen Interessenskonflikte

Martin Kolbe
→ Leitliniensteuerungsgruppe vorzeitig verlassen aus persönlichen Gründen, keine Stimme in der Konsensuskonferenz

Michael Mayer
7. DGPPN / DFPP / DG Pflegewissenschaft
8. Entwicklung eines nicht-kommerziellen Deeskalationstrainings
→ Empfehlung: Stimmenthaltung bei Deeskalation, Trainings/Fortbildungen

Jürgen Müller
1. Dr. Pfleger Pharma, Advisory Board Schizophrenie
3. Asklepios, Projekt PSM
7. DGPPN
→ Empfehlung: Stimmenthaltung bei Medikamenten

Oliver Pogarell
1. Advisory Board Vortioxetin (Lundbeck), beendet 2016
2. Vorträge für Lundbeck, Desitin, Otsuka
7. Leiter des Arbeitskreises im Auftrage des Bayerischen Staatsministeriums für Gesundheit und Pflege zum Thema Unterbringung und Zwangsmaßnahmen
→ Empfehlung: Stimmenthaltung bei Medikamenten

Thomas Pollmächer
7. DGPPN, BDK
→ Keine bedeutsamen Interessenskonflikte

Michael Schulz
1. Einmalige Teilnahme als Berater an einem Schizophrenieprojekt der Firma Janssen-Cilag im September 2013. Es sollte ein Projekt zu Minussysmptomatik aufgelegt werden. Habe von dem Projekt aber nichts mehr gehört. Es wurden damals 1500 € vergütet. Dafür war ich einen Tag in Berlin und habe dann noch einiges geschrieben.
2. Firma ABBVIE am 3.-5. Oktober. Fortbildungsveranstaltung für Pflegemitarbeiter, die mit Morbus-Chron Patienten arbeiten. Geschult wurden Techniken, um die Adhärenz der Medikamenteneinnahme zu verbessern.
Gezahlt wurden für drei Tage in Wien plus An- und Abreisetag 3500 €.
7. Ich bin Präsidiumsmitglied der Deutschen Fachgesellschaft für Psychiatrische Pflege (DFPP) und des Bundesverbandes der Leitenden Krankenpfleger in der Psychiatrie (BFLK)
→ Empfehlung: Stimmenthaltung bei Medikamenten

Konrad Stolz
→ Keine bedeutsamen Interessenskonflikte

Jochen Vollmann
2. Fortbildungsveranstaltungen in zahlreichen Krankenhäusern
7. DGPPN, Akademie für Ethik in der Medizin
→ Keine bedeutsamen Interessenskonflikte

Christian Zechert
7. Bundesverband der Angehörigen psychisch erkrankter Menschen
→ Keine bedeutsamen Interessenskonflikte

Deklarierte Interessenskonflikte der Leitliniensteuerungsgruppe 2017 beim Abschlusstreffen

Name	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Tilman Steinert	N	N	J	N	N	N	J	N	ZfP Südwürttemberg
Sophie Hirsch	N	J	N	N	N	N	J	J	ZfP Südwürttemberg
Matthias Albers	N	N	N	N	N	N	J	N	Stadt Köln
Cornelia Brummer	N	N	N	N	N	N	J	N	Diakonie Hessen
Ruth Fricke	N	N	N	N	N	N	J	N	Seit 2002 pensioniert
Gabriel Gerlinger	N	N	N	N	N	N	N	N	DGPPN e. V.
Tanja Henking	N	N	N	N	N	N	N	N	Hochschule für angw. Wissenschaften Würzburg-Schweinfurt
Felix Hohl-Radke	N	N	N	N	N	N	J	N	Asklepios Fachklinikum Brandenburg
Regina Ketelsen	N	N	N	N	N	N	N	N	Evangelisches Klinikum Bethel, Klinik für Psychiatrie und Psychotherapie
Michael Mayer	N	N	N	N	N	N	J	J	Bezirkskrankenhaus Kaufbeuren
Jürgen L. Müller	N	N	N	N	N	N	J	N	Uni Göttingen, Asklepios GmbH
André Nienaber	N	J	N	N	N	N	J	N	LWL-Klinikum Gütersloh, Fachhochschule der Diakonie Bielefeld
Oliver Pogarell	J	J	N	N	N	N	J	N	Klinikum der Universität München (KUM)
Thomas Pollmächer	N	N	J	N	N	N	J	N	Klinikum Ingolstadt
Daniela Schmid	N	N	N	N	N	N	N	N	NetzG e. V. / Journalistin Druckstudio GpZ Überlingen gGmbH
Michael Schulz	N	J	N	N	N	N	J	N	Fachhochschule der Diakonie Bielefeld
Konrad Stolz	N	N	N	N	N	N	N	N	Hochschullehrer im Ruhestand
Jochen Vollmann	N	J	N	N	N	N	N	N	Ruhr-Universität Bochum
Gernot Walter	N	J	N	N	N	N	J	N	Zentrum für Seelische Gesundheit an den Kreiskliniken Darmstadt Dieburg
Christian Zechert	N	N	N	N	J	N	J	N	1.1.2016–31.12.2017 neben der Vorstands-tätigkeit auch Wissenschaftlicher Mitarbeiter eines vom BMG geförderten Projekts in Trägerschaft des BApK.

Tilman Steinert
3. Forum für Gesundheitswirtschaft, Bremen. Finanzierung von Forschung zur Personalbesetzung in psychiatrischen Kliniken
7. Mitglied der DGPPN

Sophie Hirsch
2. Vortrag über häusliche Gewalt bei einer Fortbildung für Psychiaterinnen und Psychiater des kommerziellen Fortbildungsinstituts FomF
7. Mitglied bei DGPPN, EViPRG
8. Wissenschaftliche Mitarbeiterin der LLStG
→ Keine Stimme bei Konsensuskonferenz

Matthias Albers
7. BVÖGD, Netzwerk Sozialpsychiatrischer Dienst, DGSP
→ Keine bedeutsamen Interessenskonflikte

Cornelia Brummer
7. DGBS
→ Keine bedeutsamen Interessenskonflikte

Ruth Fricke
7. Mitglied im geschäftsführenden Vorstand des Bundesverbandes Psychiatrie-Erfahrener (BPE e.V.)
→ Keine bedeutsamen Interessenskonflikte

Gabriel Gerlinger
→ Keine bedeutsamen Interessenskonflikte

Tanja Henking
→ Keine bedeutsamen Interessenskonflikte

Felix Hohl Radke
7. Vorstandsmitglied der BDK, in diesem Rahmen z.B. Teilnahme an der Task Force Patientenautonomie
→ keine bedeutsamen Interessenskonflikte

Regina Ketelsen:
→ keine bedeutsamen Interessenskonflikte

Michael Mayer

7. DGPPN / DFPP / DG Pflegewissenschaft
8. Mitwirkung bei Entwicklung eines Deeskalationstrainings
→ Empfehlung: Stimmenthaltung bei Deeskalation, Trainings/Fortbildungen

Jürgen Müller
7. DGPPN
→ Empfehlung: Stimmenthaltung bei Medikamenten (s.o.)

André Nienaber
2. Janssen Cilag GmbH Vortragstätigkeit
7.Mitglied in der DFPP und der DGPPN
→ Empfehlung: Stimmenthaltung bei Medikamenten

Oliver Pogarell
1. Advisory Board Vortioxetin (Lundbeck), beendet 2016
2. Vorträge für Lundbeck, Desitin, Otsuka
7. Leiter des Arbeitskreises im Auftrage des Bayerischen Staatsministeriums für Gesundheit und Pflege zum Thema Unterbringung und Zwangsmaßnahmen
→ Empfehlung: Stimmenthaltung bei Medikamenten

Thomas Pollmächer
3. Projekt „Schlafbezogene nächtliche Atmungsstörungen bei psychiatrischen Patienten"
7. DGPPN (VS-Mitglied), BDK (Vorsitzender)
→ Keine bedeutsamen Interessenskonflikte

Michael Schulz
2. 2014 Projekt zur Schulung von MA in Adherence Therapie an der Forensischen Klinik Nettgut in Andernach, incl. Evaluation. Gesamtvolumen des Projekts 60.000 €.
7. DFPP
→ Keine bedeutsamen Interessenskonflikte

Konrad Stolz
→ Keine bedeutsamen Interessenskonflikte

Jochen Vollmann
2. Vorträge bei Medac GmbH in Berlin 2015 und 2017, bei KWHL GmbH in Bochum 2016, bei Berlin Chemie in Bocuhum 2016 und beim Verband der Ersatzkrankenkassen Sachsen 2015.
→ Empfehlung: Stimmenthaltung bei Medikamenten

Gernot Walter

2. Schulungen und Beratungen für die Bereiche Aggressions- und Sicherheitsmanagement für Einrichtungen und Verbände des Gesundheitswesens, Herausgabe Fachbuch und diverse Buchkapitel zu oben genanntem Thema
7. DFPP, ENTMA
→ Empfehlung: Stimmenthaltung bei Deeskalation, Training/Fortbildung

Christian Zechert
5. Der BApK ist Miteigentümer des Psychiatrie-Verlags, Köln. Formal ist der Verlag ein „Unternehmen der Gesundheitswirtschaft" und nicht gemeinnützig.
→ Keine bedeutsamen Interessenskonflikte

Deklarierte Interessenskonflikte der Konsensusgruppe 2017 vor Abstimmung

Name	1	2	3	4	5	6	7	8	9
Stephan Debus	N	N	N	N	N	N	**J**	N	Med. Hochschule Hannover, Klinik für Psychiatrie, Sozialpsychiatrie und Psychotherapie
Helga Füßmann	N	N	N	N	N	N	**J**	N	NN
Sabine Jansen	**J**	**J**	N	N	N	N	**J**	N	Deutsche Alzheimergesellschaft e.V. Selbsthilfe Demenz
Annette Loer	N	N	N	N	N	N	**J**	N	Oberlandesgericht Celle/ Amtsgericht Hannover
Heidrun Lundie	N	N	N	N	N	N	**J**	N	St. Alexius/St.Josefs-Krankenhaus
Inge Neisser	N	N	N	N	N	N	**J**	N	NN
Klaus Obert	N	N	N	N	N	N	N	N	Gemeindepsychiatrisches Zentrum Stuttgart
Iris Peymann	N	N	N	N	N	N	**J**	N	
Oliver Pogarell	J	J	N	N	N	N	**J**	N	Klinikum der Universität München (KUM)
Christa Roth-Sackenheim	N	N	N	N	N	N	**J**	N	NN
Ingo Schäfer	N	**J**	N	N	**J**	N	**J**	N	Klinik für Psychiatrie und Psychotherapie Universitätsklinikum Hamburg-Eppendorf
Jochen Tenter	N	N	N	N	N	N	**J**	N	ZfP Südwürttemberg
Roland Urban	N	N	N	N		N	**J**	N	NN
Egberth Wienforth	N	N	N	N	N	N	**J**	N	NN

Markus Witzmann	N	N	N	N	N	N	**J**	N	Klinikum des Bezirks Oberbayern und Staatl. Hochschule München
Christian Zechert	N	N	N	N	**J**	N	**J**	N	Seit 1.1.2018 nur Altersrente 01.01.2016 – 31.12.2017 (Arbeitnehmer und Altersrentenbezieher) 01.03.204 – 31-12.2015 Freier Mitarbeiter beim BApK e.V und Altersrente Bis 28.02.2014 Wissenschaftlicher MA des Ev. Krhs. Bethel / ab 1.3.2014 Altersrente
Martin Zinkler	N	N	N	N	N	N	**J**	N	Kliniken Landkreis Heidenheim gGmbH

Stephan Debus
7. Entsendung durch DGSP, Mitglied der DGSP und im DGSP-FA-Forschung
→ Keine bedeutsamen Interessenskonflikte

Helga Füßmann
7. Vorsitzende des VPP und des BDP

Sabine Jansen
1. 250 Euro Novartis, 1500 Euro Lilly (jeweils 2015, nicht persönlich erhalten)
2. Fa. Lilly 1100 Euro für einen Vortrag (11/2016, nicht persönlich erhalten)
7. Mandatsträgerin für Deutsche Alzheimergesellschaft
→ Empfehlung: Stimmenthaltung bei Medikamenten

Annette Loer
7.Betreuungsgerichtstag (ehrenamtlicher Vorstand und hier als Mandatsträgerin für LL entsandt)
→ Keine bedeutsamen Interessenskonflikte

Heidrun Lundie
7. Mitglied in der Bundesfachvereinigung für leitende Pflegende in der Psychiatrie
→ Keine bedeutsamen Interessenskonflikte

Inge Neisser

7. Berufsverbnd Deutscher Psychologinnen und Psychologen
→ Keine bedeutsamen Interessenskonflikte
Iris Peymann
7. Bundesverband der Berufsbetreuer/Innen, Vorstand
→ Keine bedeutsamen Interessenskonflikte

Oliver Pogarell
1. Advisory Board Vortioxetin (Lundbeck), beendet 2016
2. Vorträge für Lundbeck, Desitin, Otsuka
7. Leiter des Arbeitskreises im Auftrage des Bayerischen Staatsministeriums für Gesundheit und Pflege zum Thema Unterbringung und Zwangsmaßnahmen
→ Empfehlung: Stimmenthaltung bei Medikamenten

Jochen Tenter
7. DGPPN, DGGPP, DAGPP
→ Keine bedeutsamen Interessenskonflikte

Christa Roth-Sackenheim
7. Vorsitzende des Berufsverbandes Deutscher Fachärzte für Psychiatrie und Psychotherapie
→ Keine bedeutsamen Interessenskonflikte

Ingo Schäfer
2. Zentrum für Psychotraumatologie Hamburg
5. Zentrum für Psychotraumatologie Hamburg
7. DGPPN, DeGPT (Mandatsträger), DGSucht, NS
→ Keine bedeutsamen Interessenskonflikte

Roland Urban
7. DGPPN, BVDN, BVDP
→ Keine bedeutsamen Interessenskonflikte

Egberth Wienforth
7. DGPPN, BVDN, BVDP
→ Keine bedeutsamen Interessenskonflikte

Markus Witzmann
7.Sektion Psychiatrische Pflegeforschung der DGP e.V.
→ Keine bedeutsamen Interessenskonflikte

Christian Zechert
5. Der BApK ist Miteigentümer des Psychiatrie-Verlags, Köln. Formal ist der Verlag ein „Unternehmen der Gesundheitswirtschaft“ und nicht gemeinnützig.

7. Vorstand BApK e.V., Mitglied DGSP
→ Keine bedeutsamen Interessenskonflikte

Martin Zinkler
7. DGPPN; ACKPA
→ keine bedeutsamen Interessenskonflikte

6. Verbreitung und Implementierung

Konzept zur Verbreitung und Implementierung

Die Leitlinie soll im Internet auf der Seite der AWMF und der DGPPN frei zugänglich sein. Zudem soll sie in Printform vertrieben werden (s. u. Unterstützende Materialien) und in Rundschreiben verbreitet werden.

Die Leitlinie wurde bereits auf verschiedenen internationalen psychiatrischen Kongressen vorgestellt.

Alle bisherigen Erfahrungen (6-Core-Strategies, Safewards) ergaben, dass es nicht ausreicht, Wissen und Materialien zur Verfügung stellen, um Zwang und Gewalt wirksam zu reduzieren. Stattdessen sind strukturierte Programme erforderlich, die auf verschiedenen Ebenen des Versorgungssystems ansetzen.
Aus den Empfehlungen der Leitlinie soll daher ein Interventions-Plan abgeleitet werden, der i.S. einer Fidelity-Skala überprüfbar ist, z. B.

- Festlegen von individuellen Verantwortlichkeiten, Einbezug der Klinikleitung
- Angemessene Gestaltung von Stationen
- Einführung von Sprach- und Kulturmittlern
- Einbeziehung von Peers
- Einführung eines Konzepts zur Reduktion geschlossener Stationstüren und Ausgangsbeschränkungen, Möglichkeiten zum begleiteten Ausgang
- Standardisierte Risikoeinschätzung und standardisierte Frühinterventionen
- Einführung von Sensory Modulation, Time-Out-Räume, 1:1-Betreuung und individualisierten Notfallpläne für Patienten auf Station
- Einführung individualisierter Behandlungspläne
- Angebot von verhaltenstherapeutischen Einzel- und Gruppentherapien
- Verpflichtende Schulungen und Trainings für Mitarbeitende und psychisch erkrankte Menschen
- Einführung alternativer freiheitsbeschränkender Maßnahmen wie Festhalten
- Verkürzung der Überprüfungsintervalle bzw. Einführung einer lückenlosen 1:1 Betreuung bei freiheitsbeschränkenden Maßnahmen
- Menschliche Gestaltung von freiheitsbeschränkenden Maßnahmen, bei länger andauern Maßnahmen mit therapeutischen Angeboten und Möglichkeiten zu Besuchen
- LL-gerechte Pharmakotherapie in der Akutsituation
- LL-gerechte Pharmakotherapie in der Langzeitbehandlung
- Standardisierte Erfassung von Aggression, Gewalt und Zwangsmaßnahmen
- Einführung von Nachbesprechungen
- Einführungen von Vorausverfügungen nach Unterbringungen und nach freiheitsbeschränkenden Maßnahmen auf Station

Angestrebt wird eine Forschung zum Wirksamkeit der Implementierung mit einer multizentrischen randomisierten kontrollierten Studie.

Unterstützende Materialien für die Anwendung der Leitlinie

Die Leitlinie soll in einer Langfassung, in einer Kurzfassung, die die Empfehlungen für den klinischen Alltag enthält sowie in einer Fassung für psychisch erkrankte Menschen und ihre Angehörigen erscheinen, die die wichtigsten Erkenntnisse aus Hintergrundtext und Empfehlungen in verständlicher Sprache zusammenfasst, erscheinen. Eine Übersetzung der Empfehlungen und der Nutzerfassung ins Englische ist geplant.

Diskussion möglicher organisatorischer und/oder finanzieller Barrieren gegenüber der Anwendung der Leitlinienempfehlungen

Neben zeitlichen und finanziellen Barrieren (Personal, Schulungen, Gebäude) spielen bei Zwang und Gewalt ganz besonders das Sicherheitsgefühl des Einzelnen und die Verantwortlichkeiten in der Gruppe eine Rolle. Hier müssen Strategien entwickelt werden, um Zwang und Gewalt gleichermaßen zu reduzieren und psychisch erkrankte Menschen und Mitarbeitende vor Verletzungen und Traumatisierungen zu bewahren. Neben Aufklärungsarbeit spielen Schulungen und Trainings sowie ideelle, finanzielle und praktische Unterstützungen durch das operative und das strategische Management eine wichtige Rolle.

Messgrößen für das Monitoring: Qualitätsziele, Qualitätsindikatoren

Prozessqualität: Die Einführung des oben genannten XXX Punkte Plan kann mit Audits überprüft werden. Es soll eine Fidelity-Skala entwickelt werden. Geplant ist ein multizentrisches RCT.

Ergebnisqualität: Zusätzlich sollten aggressive und gewalttätige Übergriffe sowie Zwangsmaßnahmen erfasst und standardisiert ausgewertet werden, bspw. Fixierungen, Isolierungen oder Übergriffe pro 1000 Patiententage, Dauer der Zwangsmaßnahmen pro 1000 Patiententage etc.

7. Gültigkeitsdauer und Aktualisierungsverfahren

Datum der letzten inhaltlichen Überarbeitung und Status

Diese Leitlinie wurde am 12.02.2018 in der Konsensuskonferenz zuletzt inhaltlich überarbeitet und verabschiedet. Die Leitlinie ist bis Februar 2023 gültig.

Aktualisierungsverfahren

Die Leitlinie soll bis 2023 aktualisiert werden.
Ansprechpartner ist die DGPPN (sekretariat@dgppn.de).

Dabei sollen Updates für die vier systematischen Reviews erstellt werden.
Folgende bisher noch nicht vollständig untersuchte Bereiche sollen dann besondere Berücksichtigung finden, ggf. müssen in der Zwischenzeit Untersuchungen diesbezüglich durchgeführt und Daten gesammelt werden:

- Neue Datenlage komplexe/strukturierte Behandlungsprogramme zur Reduktion von Zwangsmaßnahmen
- Neue Datenlage zu Mitarbeitertrainings,
- Sicherheitsdienste in Krankenhäusern

Anhang – Evidenztabellen

Medikamente

Bibliographic citation National Collaborating Centre for Mental Health (UK): Violence and Aggression: Short-Term Management in Mental Health, Health and Community Settings: Updated edition. London: British Psychological Society; 2015.	
Study type	Guideline
Evidence level	I-IV
Results / Effect size	
Source of Funding	

Bibliographic citation Steinert T, Hamann K: External Validity of Studies on Aggressive Behavior in Patients with Schizophrenia: Systematic Review. Clin Pract Epidemiol Ment Health. 2012; 8: 74–80.	
Study type	Review
Evidence level	
Results / Effect size	In most of the studies, aggression or violence, respectively, were poorly defined. Only 5 (15.2 %) studies used a cut-off score on an aggression scale. Only 6 studies (18.2 %) reported the number of patients who refused to participate, and 16 (48.5 %) reported the number of drop-outs. Only 3 studies (9.1 %) reported a systematic comparison of participants and non-participants. We found that data which allow for the assessment of representativeness of the investigated samples are poorly reported. For most studies, doubts regarding external validity seem justified and generalisability is questionable due to possible selection bias.
Source of Funding	Not reported

Bibliographic citation Belgamwar RB, Fenton M: Olanzapine IM or velotab for acutely disturbed/agitated people with suspected serious mental illnesses. Cochrane Database of Systematic Reviews 2005; Issue 2. Art. No.: CD003729.	
Study type	Review
Evidence level	Ia
Results / Effect size	Four trials compared olanzapine IM with IM placebo (total n=769, 217 allocated to placebo). Fewer people given olanzapine IM

	had 'no important response' by 2 hours compared with placebo (4 RCTs, n=769, RR 0.49 CI 0.42 to 0.59, NNT 4 CI 3 to 5) and olanzapine IM was as acceptable as placebo (2 RCTs, n=354, RR leaving the study early 0.31 CI 0.06 to 1.55). When compared with placebo, people given olanzapine IM required substantially fewer additional injections following the initial dose (4 RCTs, n=774, RR 0.48 CI 0.40 to 0.58, NNT 4 CI 4 to 5). Olanzapine IM did not seem associated with extrapyramidal effects (4 RCT, n=570, RR experiencing any adverse event requiring anticholinergic medication in first 24 hours 1.27 CI 0.49 to 3.26). Two trials compared olanzapine IM with haloperidol IM (total n=482, 166 allocated to haloperidol). Studies found no differences between olanzapine IM and haloperidol by 2 hours for the outcome of 'no important clinical response' (2 RCTs, n= 482, RR 1.00 CI 0.73 to 1.38) neither was there a difference for needing repeat IM injections (2 RCTs, n=482, RR 0.99 CI 0.71 to 1.38). More people on haloperidol experienced akathisia over the five day oral period compared with olanzapine IM (1 RCT, n=257, RR 0.51 CI 0.32 to 0.80, NNT 6 CI 5 to 15) and fewer people allocated to olanzapine IM required anticholinergic medication by 24 hours compared with those given haloperidol IM (2 RCTs, n= 432, RR 0.20 CI 0.09 to 0.44, NNT 8 CI 7 to 11). Two trials compared olanzapine IM with lorazepam IM (total n=355, 119 allocated to lorazepam). For the outcome of 'no important clinical response' , there was no difference between people given olanzapine IM and those allocated to lorazepam at 2 hours (2 RCTs, n=355, RR 92 CI 0.66 to 1.30) but fewer people allocated to olanzapine IMrequired additional injections by 24 hours compared with those on lorazepam IM (2 RCTs, n=355, RR 0.68 CI 0.49 to 0.95, NNT 10 CI 6 to 59). People receiving IM olanzapine were less likely to experience any treatment emergent adverse events, than those on lorazepam (1 RCT, n=150, RR at 24 hours 0.62 CI 0.43 to 0.89, NNT 5 CI 4 to 17) and over the same time period there were no clear differences in the use of anticholinergic medication between groups (1 RCT, n=150, RR 1.16 CI 0.38 to 3.58). No studies reported outcomes related to hospital and service use. Nor did any report on issues of satisfaction with care or suicide, selfharm

	or harm to others. No studies evaluated the oro-dispersable form of olanzapine.
Source of Funding	All studies are funded by a company with a pecuniary interest in the result.

Bibliographic citation Gilles D, Sampson, S, Beck A, Rathbone J: Benzodiazepines for psychosis-induced aggression or agitation. Cochrane Database of Systematic Reviews 2013; Issue 4. Art. No.: CD003079.	
Study type	Review
Evidence level	Mixed Ia, IV
Results / Effect size	We included 21 trials with a total of n = 1968 participants. There was no significant difference for most outcomes in the one trial that compared benzodiazepines with placebo, although there was a higher risk of no improvement in people receiving placebo in the medium term (one to 48 hours) (n = 102, 1 RCT, RR 0.62, 95 % CI 0.40 to 0.97, very low quality evidence). There was no difference in the number of participants who had not improved in themediumtermwhen benzodiazepines were compared with antipsychotics (n = 308, 5 RCTs, RR 1.10, 95 % CI 0.85 to 1.42, low quality evidence); however, people receiving benzodiazepines were less likely to experience extrapyramidal effects (EPS) in the medium term (n = 536, 8 RCTs, RR 0.15, 95 % CI 0.06 to 0.39, moderate quality of evidence). Data comparing combined benzodiazepines and antipsychotics versus benzodiazepines alone did not yield any significant results. When comparing combined benzodiazepines/antipsychotics (all studies compared haloperidol) with the same antipsychotics alone (haloperidol), there was no difference between groups in improvement in the medium term (n = 155, 3 RCTs, RR 1.27, 95 % CI 0.94 to 1.70, very low quality evidence) but sedation was more likely in people who received the combination therapy (n = 172, 3 RCTs, RR 1.75, 95 % CI 1.14 to 2.67, very low quality evidence). However, more participants receiving combined benzodiazepines and haloperidol had not improved by medium term when compared to participants receiving olanzapine (n = 60,1 RCT, RR 25.00, 95 % CI 1.55 to 403.99, very low quality evidence) or ziprasidone (n = 60, 1 RCT, RR 4.00, 95 % CI 1.25 to 12.75 very low quality

	evidence). When haloperidol and midazolam were compared with olanzapine, there was some evidence the combination was superior in terms of improvement, sedation and behaviour.
Source of Funding	Several trials were funded by pharmaceutical companies. Other sources of funding include support from the National Alliance for Research on Schizophrenia and Depression; a postgraduate scholarship from the National Health and Medicine Research Council and a research grant from the Australasian Collegefor Emergency Medicine; a grant from the Gralnick Foundation, High Point Hospital, Port Chester, NY; funding from Fundação Oswaldo Cruz, the British Council, CAPES (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior) and FAPERJ (Fundação de Amparo à Pesquisa do Estado do Rio de Janeiro); funding by intramural research grants from Fluid Research Fund (Christian Medical College, Vellore), and the Cochrane Schizophrenia Group general fund.

Bibliographic citation Andrezina R, Josiassen RC, Marcus RN, Oren DA, Manos G, Stock E, Carson WH, Iwamoto T: Intramuscular aripiprazole for the treatment of acute agitation in patients with schizophrenia or schizoaffective disorder: a double-blind, placebo-controlled comparison with intramuscular haloperidol. Psychopharmacology (2006) 188:281–292	
Study type	RCT
Evidence level	Ib
Number of Patients	448
Patient characteristics	All patients suffered from schizophrenia and agitation All patients > 18 years All patients in-patients Patients were also required to have Positive and Negative Syndrome Scale (PANSS) Excited Component (PEC) scores of ≥15 and ≤32, and a score of ≥4 (moderate) on at least two of the five PEC items Give informed consent Exclusion criteria: other psychiatric or neurologic diseases, seizures, abnormal EEG, stroke, head trauma, significant risk of committing suicide, substance dependence, use of benzodiazepines, anticholinergic agents
Intervention	IM aripiprazole 9.75 mg

Comparison	IM haloperidol 6.5 mg or IM placebo
Length of Follow up	22 h
Outcome measures	Reduction from baseline on the PEC-score at 2h Secondary Outcomes: CGI-I, CGI-S, ACES, CABS, BPRS
Results / Effect size	Mean improvement in PEC at 2 h was significantly greater for IM aripiprazole (−7.27) vs placebo (−4.78; p<0.001); IM aripiprazole was noninferior to IM haloperidol (−7.75) on PEC. All secondary efficacy measures showed significantly greater improvements at 2 h for IM aripiprazole and IM haloperidol over placebo. Mean number of injections/patient and percentage of patients requiring benzodiazepines were significantly lower for IM aripiprazole vs placebo (p<0.01). IM aripiprazole was well tolerated. Extrapyramidal symptom-related adverse events were similar for aripiprazole (1.7 %) and placebo (2.3 %) and lower than with haloperidol (12.6 %).
Source of Funding	Pharmaceutical companies: Bristol-Myers Squibb Company(Princeton, NJ) and Otsuka Pharmaceutical Co., Ltd. (Tokyo, Japan)

Bibliographic citation Zimbroff DL, Marcus RN, Manos G, Stock E, McQuade RD, Auby P, Oren DA: Management of Acute Agitation in Patients With Bipolar Disorder Efficacy and Safety of Intramuscular Aripiprazole. Journal of Clinical Psychopharmacology Volume 27, Number 2, April 2007.	
Study type	RCT
Evidence level	Ib
Number of Patients	301
Patient characteristics	All patients suffered from bipolar I disorder (manic or mixed episodes) and agitation All patients > 18 years All patients in-patients Patients were also required to have Positive and Negative Syndrome Scale (PANSS) Excited Component (PEC) scores of ≥15 and ≤32, and a score of ≥4 (moderate) on at least two of the five PEC items Give informed consent Exclusion criteria: other psychiatric or neurologic diseases, first manic episode, non-responder on other antipsychotics, significant medical history exposing patients to undue risk of significant adverse events (AEs) or interfering with safety/efficacy assessments, use of

	benzodiazepines, anticholinergic agents
Intervention	IM aripiprazole 9.75 mg per injection (n = 78), IM aripiprazole 15 mg per injection (n = 78)
Comparison	IM lorazepam 2 mg per injection (n = 70), or IM placebo (n = 75)
Length of Follow up	24 h
Outcome measures	Reduction from baseline on the PEC-score at 2h Secondary-Outcomes: CGI-I, CGI-S, ACES, CABS, YMRS, SAS, and BARS
Results / Effect size	Mean improvements in Positive and Negative Syndrome Scale Excited Component score at 2 hours were significantly greater with IM aripiprazole (9.75 mg, _8.7; 15 mg, _8.7) and IM lorazepam (_9.6) versus IM placebo (_5.8; P_0.001). For all other efficacy measures, all 3 active treatments showed significantly greater improvements over IM placebo at 2 hours (P < 0.05), with similar improvements across the active treatments. Significant differences over IM placebo were seen by 45 to 60 minutes for several efficacy parameters. Both IM aripiprazole doses were well tolerated; the safety profile was similar to oral aripiprazole. Oversedation (Agitation–Calmness Evaluation Scale score of 8 or 9) during 2 hours after first injection was less frequent with IM aripiprazole 9.75 mg (6.7 %) and IM placebo (6.8 %) versus IM aripiprazole 15 mg (17.3 %) and IM lorazepam (19.1 %). IM aripiprazole 9.75 and 15 mg are effective and well tolerated for acute agitation in bipolar disorder, although the low incidence of oversedation suggests a risk–benefit profile for IM aripiprazole 9.75 mg.
Source of Funding	Source of funding: none, conflicts of interests: yes

Bibliographic citation Tran-Johnson, TK; Sack, DA et al.: Efficacy and Safety of Intramuscular Aripiprazole in Patients With Acute Agitation: A Randomized, Double-Blind, Placebo-Controlled Trial. The Journal of Clinical Psychiatry 2007.	
Study type	RCT
Evidence level	Ib
Number of Patients	357
Patient characteristics	patients with acute agitation with a DSM-IV diagnosis of

	schizophrenia, schizoaffective disorder, or schizo-phreniform disorder
Intervention	IM aripiprazole 1 mg, 5.25 mg, 9.75 mg, or 15 mg
Comparison	IM haloperidol 7.5 mg; or placebo
Length of Follow up	24 h
Outcome measures	Reduction from baseline on the PEC-score at 2h Secondary Outcome ACES, CABS, CGI-S, CGI-I, BPRS
Results / Effect size	Intramuscular aripiprazole 5.25 mg, 9.75 mg, and 15 mg and IM haloperidol 7.5 mg demonstrated significantly greater reduction in the primary efficacy measure versus placebo. These changes were statistically significant as early as 45 minutes for the IM aripiprazole 9.75-mg group, with a trend toward significance (p = .051) at 30 minutes. Intramuscular haloperidol 7.5 mg first showed a significant reduction in PEC score versus placebo at 105 minutes. At 30 minutes, significantly more patients responded (defined as a greater than or equal to 40 % reduction in PEC score) to IM aripiprazole 9.75 mg versus placebo (27 % vs. 13 %, p = .05). Intramuscular aripiprazole 9.75 mg significantly improved agitation, without oversedation, as measured by change in ACES score from baseline to 2 hours versus placebo (p = .003). No patient discontinued the study because of treatment-emergent adverse events. Extrapyramidal symptoms occurred most frequently in the IM haloperidol group. The most common adverse event in IM aripiprazole recipients was headache.
Source of Funding	Pharmaceutical companies: Bristol-Myers Squibb Company(Princeton, NJ) and Otsuka Pharmaceutical Co., Ltd. (Tokyo, Japan)

Bibliographic citation Citrome, L.: Comparison of Intramuscular Ziprasidone, Olanzapine, or Aripiprazole for Agitation: A Quantitative Review of Efficacy and Safety. The Journal of Clinical Psychiatry 2007.	
Study type	Review
Evidence level	Ib
Results / Effect size	Using the a priori definitions of response at 2 hours after the first injection, NNT for response versus placebo (or placebo equivalent) in treating agitation for the pooled data at the recommended dose of ziprasidone 10-20 mg was 3 (95 % CI = 2 to 4), for olanzapine 10 mg was 3 (95 % CI = 2 to 3), and for aripiprazole 9.75 mg was 5 (95 % CI = 4 to 8). Treatment-emergent adverse events occurring during the pivotal trials revealed

	statistically significant NNH versus placebo (or placebo equivalent) for aripiprazole for headache (NNH = 20, 95 % CI = 11 to 170) and nausea (NNH = 17, 95 % CI = 11 to 38), for ziprasidone in the treatment of headache (NNH = 15, 95 % CI = 8 to 703), and for olanzapine in treatment-emergent hypotension (NNH = 50, 95 % CI = 30 to 154). Olanzapine and aripiprazole had a more favorable extrapyramidal side effect profile compared to haloperidol. (There was no haloperidol treatment arm in the ziprasidone studies.)
Source of Funding	Source of funding: none, conflicts of interests: yes

Bibliographic citation Kittipeerachon M, Chaichan W. Intramuscular olanzapine versus intramuscular aripiprazole for the treatment of agitation in patients with schizophrenia: A pragmatic double-blind randomized trial. Schizophr Res. 2016 Oct;176(2-3):231-8. doi: 10.1016/j.schres.2016.07.017. Epub 2016 Jul 25.	
Study type	RCT
Evidence level	Ib
Number of Patients	80
Patient characteristics	adult patients (18-65years old) with schizophrenia experiencing agitation in a psychiatric hospital in Thailand, patients with a PANSS-EC score range of 22-35 entered the study, of whom 13 % had a medical comorbidity and 40 % a history of active substance abuse
Intervention	9, 75 mg Aripiprazole i.m. or 10 mg Olanzapine i.m.
Comparison	
Length of Follow up	24 h
Outcome measures	Excited Component of the Positive and Negative Syndrome Scale (PANSS-EC).
Results / Effect size	The 40 patients receiving IM olanzapine showed greater improvement than the 40 patients receiving IM aripiprazole in PANSS-EC scores at 2h after the injection (p=0.002) but not at 24h. The two treatments were well tolerated. Patients receiving IM olanzapine experienced greater somnolence than those receiving IM aripiprazole. There were no clinically relevant changes in vital signs in either group.
Source of Funding	All authors declare that they have no conflicts of interest.

Bibliographic citation Pratts M, Citrome L, Grant W, Leso L, Opler LA: A single-dose, randomized, double-blind, placebo-controlled trial of sublingual asenapine for acute agitation. Acta Psychiatr Scand. 2014 Jul;130(1):61-8.	
Study type	RCT
Evidence level	Ib
Number of Patients	120
Patient characteristics	Agitated adults 18–65 years (any diagnosis) presenting for treatment in an emergency department and found to have a score of ≥14 on the Positive and Negative Syndrome Scale-Excited Component (PANSS-EC)
Intervention	a single dose of a sublingual 10 mg tablet of asenapine
Comparison	placebo
Length of Follow up	None
Outcome measures	Reduction from baseline on the PEC-score at 2h
Results / Effect size	A total of 120 subjects were randomized, 60 each to sublingual asenapine or placebo. Mean (SE) baseline PANSS-EC scores for the asenapine-treated and placebo-treated subjects were 19.4 _ 0.66 and 20.1 _ 0.61, respectively. Mean PANSS-EC scores at endpoint (LOCF) was 7.4 _ 0.65 for the asenapine-treated subjects and 14.7 _ 0.98 for the placebo-treated subjects. Change in PANSS-EC score at 2 h was statistically significantly greater for the asenapine-treated subjects compared with the placebo-treated subjects. NNT for response vs. placebo was 3 (95 % CI 2–4).
Source of Funding	Investigator-initiated trial grant 39230 from Merck & Co., Inc.

Bibliographic citation Dorevitch A, Katz N, Zemishlany Z, Aizenberg D, Weizman A: Intramuscular flunitrazepam versus intramuscular haloperidol in the emergency treatment of aggressive psychotic behavior. American Journal of Psychiatry 1999; 156:142-144	
Study type	RCT
Evidence level	Ib
Number of Patients	28

Patient characteristics	actively psychotic inpatients, aged 20-60 years, who were under treatment with neuroleptic agents 13 men and 15 women 19 schizophrenia, seven schizoaffective disorder, and two bipolar disorder Inclusion Criteria: presence of active psychosis; disruptive or aggressive behavior, pronounced psychomotor agitation, or violent outbursts; and hospitalization in an acute ward
Intervention	1 mg i.m. of flunitrazepam
Comparison	5 mg i.m. of haloperidol
Length of Follow up	2 h
Outcome measures	OAS Measurements were made at baseline and at 15, 30, 45, 60, 90, and 120 minutes. All ratings were completed by the same rater, who was blind to the study medications. Overall response to treatment was defined as a reduction of at least 50 % in Overt Aggression Scale score at 90 minutes. The BPRS and the CGI scale were also administered at baseline to assess the severity of psychotic symptoms.
Results / Effect size	Both flunitrazepam and haloperidol exhibited acute antiaggressive activity. This beneficial effectwas obtained within 30 minutes.
Source of Funding	Not reported

Bibliographic citation Powney MJ, Adams CE, Jones H: Haloperidol for psychosis-induced aggression or agitation (rapid tranquillisation). Cochrane Database of Systematic Reviews 2012; Issue 11. Art. No.: CD009377. DOI: 10.1002/14651858.CD009377.pub2.	
Study type	Review
Evidence level	Ia
Results / Effect size	We included 32 studies comparing haloperidol with 18 other treatments. Few studies were undertaken in circumstances that reflect real world practice, and, with notable exceptions, most were small and carried considerable risk of bias. Compared with placebo, more people in the haloperidol group were asleep at two hours (2 RCTs, n = 220, risk ratio (RR) 0.88, 95 % confidence interval (CI) 0.82 to 0.95). Dystonia was common (2 RCTs, n = 207, RR 7.49, CI 0.93 to 60.21). Compared with aripiprazole, people in the haloperidol group required fewer injections than those in the aripiprazole group (2 RCTs, n = 473, RR 0.78, CI 0.62 to 0.99). More people in the haloperidol group experienced dystonia (2 RCTs, n = 477, RR 6.63, CI 1.52 to 28.86). Despite three larger trials

	with ziprasidone (total n = 739), data remain patchy, largely because of poor design and reporting. Compared with zuclopenthixol acetate, more people who received haloperidol required more than three injections (1 RCT, n = 70, RR 2.54, CI 1.19 to 5.46). Three trials (n = 205) compared haloperidol with lorazepam. There were no significant differences between the groups with regard to the number of participants asleep at one hour (1 RCT, n = 60, RR 1.05, CI 0.76 to 1.44). However, by three hours, significantly more people were asleep in the lorazepam group compared with the haloperidol group (1 RCT, n = 66, RR 1.93, CI 1.14 to 3.27). There were no differences in numbers requiring more than one injection (1 RCT, n = 66, RR 1.14, CI 0.91 to 1.43). Haloperidol's adverse effects were not offset by addition of lorazepam (e.g. dystonia 1 RCT, n = 67, RR 8.25, CI 0.46 to 147.45; required antiparkinson medication RR 2.74, CI 0.81 to 9.25). Addition of promethazine was investigated in one larger and better graded trial (n = 316). More people in the haloperidol group were not tranquil or asleep by 20 minutes (RR 1.60, CI 1.18 to 2.16). Significantly more people in the haloperidol alone group experienced one or more adverse effects (RR 11.28, CI 1.47 to 86.35). Acute dystonia for those allocated haloperidol alone was too common for the trial to continue beyond the interim analysis (RR 19.48, CI 1.14 to 331.92).
Source of Funding	Not reported

Bibliographic citation Bieniek SA, Ownby RL, Penalver A, Domingues RA: A double-blinded study of lorazepam versus the combination of haloperidol and lorazepam in managing agitation. Pharmacotherapy 1998; 18:57-62	
Study type	RCT
Evidence level	Ib
Number of Patients	20
Patient characteristics	Men and women age 18-50 years who were seen on the PES with acutely agitated behavior, and who had met clinical criteria for the use of chemical restraints, were considered for the study. Patients were also required to show psychometric evidence of aggressive or agitated behavior, as defined by a minimum score of 4,with score of 2 or more on at least one item, of the Overt Aggression Scale (OAS). Additionally, a rating of at least 50 on a 100-point visual analog

	scale reflecting agitation and hostility from none to extreme was also required. Subjects were medically healthy, with no overt evidence of physical illness. Those known to be pregnant, positive for the human immunodeficiency virus, or had a history of seizures or severe head trauma were excluded. Also excluded were those with psychopathology due to a suspected general medical condition, or whose symptoms were initially judged to be solely related to alcohol or substance abuse.
Intervention	Lorazepam 2 mg i.m.
Comparison	Combination of haloperidol 5 mg i.m. and lorazepam 2 mg i.m.
Length of Follow up	180 minutes
Outcome measures	The Overt Aggression Scale (OAS), visual analog scales reflecting agitation and hostility, and the Clinical Global Impressions (CGI) severity scale were administered at baseline and 30, 60, 120, and 180 minutes after the injection. Planned data comparisons included categoric assignment of patients as improved, as defined by decreases in outcome measures 60 minutes after the injection, as well as continuous variables up to 180 minutes after the injection.
Results / Effect size	A significantly greater percentage of subjects receiving combined treatment improved on the specific measures 60 minutes after dosing ($p<0.05$). Kaplan-Meier survival analyses showed significant between-group differences in survival curves plotted for the entire study period ($p<0.05$). Repeated measures analyses of variance studying group differences showed that both groups improved over time, but between-group differences were not significant. The powers of these analyses were low due to the small sample. No serious adverse effects occurred in either treatment group.
Source of Funding	Not reported

Bibliographic citation Huf G, Alexander J, Gandhi P, Allen MH. Haloperidol plus promethazine for psychosis-induced aggression. *Cochrane Database of Systematic Reviews* 2016, Issue 11. Art. No.: CD005146. DOI: 10.1002/14651858.CD005146.pub3.	
Study type	Review
Evidence level	Ia
Results / Effect size	We found two new randomised controlled trials (RCTs) from the 2015 update searching. The review now includes six studies, randomising 1367 participants and presenting data relevant to six

	comparisons. When haloperidol plus promethazine was compared with haloperidol alone for psychosis-induced aggression for the outcome not tranquil or asleep at 30 minutes, the combination treatment was clearly more effective (n=316, 1 RCT, RR 0.65, 95 % CI 0.49 to 0.87, high-quality evidence). There were 10 occurrences of acute dystonia in the haloperidol alone arm and none in the combination group. The trial was stopped early as haloperidol alone was considered to be too toxic. When haloperidol plus promethazine was compared with olanzapine, high-quality data showed both approaches to be tranquillising. It was suggested that the combination of haloperidol plus promethazine was more effective, but the difference between the two approaches did not reach conventional levels of statistical significance (n=300, 1 RCT, RR 0.60, 95 % CI 0.22 to 1.61, high-quality evidence). Lower-quality data suggested that the risk of unwanted excessive sedation was less with the combination approach (n=116, 2 RCTs, RR 0.67, 95 % CI 0.12 to 3.84). When haloperidol plus promethazine was compared with ziprasidone all data were of lesser quality. We identified no binary data for the outcome tranquil or asleep. The average sedation score (Ramsay Sedation Scale) was lower for the combination approach but not to conventional levels of statistical significance (n=60, 1 RCT, MD - 0.1, 95 % CI - 0.58 to 0.38). These data were of low quality and it is unclear what they mean in clinical terms. The haloperidol plus promethazine combination appeared to cause less excessive sedation but again the difference did not reach conventional levels of

	statistical significance (n=111, 2 RCTs, RR 0.30, 95 % CI 0.06 to 1.43). We found few data for the comparison of haloperidol plus promethazine versus haloperidol plus midazolam. Average Ramsay Sedation Scale scores suggest the combination of haloperidol plus midazolam to be the most sedating (n=60, 1 RCT, MD - 0.6, 95 % CI -1.13 to -0.07, low-quality evidence). The risk of excessive sedation was considerably less with haloperidol plus promethazine (n=117, 2 RCTs, RR 0.12, 95 % CI 0.03 to 0.49, low-quality evidence). Haloperidol plus promethazine seemed to decrease the risk of needing restraints by around 12 hours (n=60, 1 RCT, RR 0.24, 95 % CI 0.10 to 0.55, low-quality evidence). It may be that use of midazolam with haloperidol sedates swiftly, but this effect does not last long. When haloperidol plus promethazine was compared with lorazepam, haloperidol plus promethazine seemed to more effectively cause sedation or tranquillisation by 30 minutes (n=200, 1 RCT, RR 0.26, 95 % CI 0.10 to 0.68, high-quality evidence). The secondary outcome of needing restraints or seclusion by 12 hours was not clearly different between groups, with about 10 %in each group needing this intrusive intervention (moderate-quality evidence). Sedation data were not reported, however, the combination group did have less ’any serious adverse event’ in 24-hour follow-up, but there were not clear differences between the groups and we are unsure exactly what the adverse effect was. There were no deaths. When haloperidol plus promethazine was compared with midazolam, there was clear evidence that midazolam is more swiftly tranquillising

	of an aggressive situation than haloperidol plus promethazine (n=301, 1 RCT, RR 2.90, 95 % CI 1.75 to 4.8, high-quality evidence). On its own, midazolam seems to be swift and effective in tranquillising people who are aggressive due to psychosis. There was no difference in risk of serious adverse event overall (n=301, 1 RCT, RR 1.01, 95 % CI 0.06 to 15.95, high-quality evidence). However, 1 in 150 participants allocated haloperidol plus promethazine had a swiftly reversed seizure, and 1 in 151 given midazolam had swiftly reversed respiratory arrest.
Source of Funding	All studies were undertaken by researchers and clinicians who were already receiving support from their home institutions. Industry funding was not involved.

Bibliographic citation Barbui C. Intramuscular haloperidol plus promethazine is more effective and safer than haloperidol alone for rapid tranquillisation of agitated mentally ill patients. Evidence-Based Mental Health 2008;11(3):86–7.	
Study type	RCT
Evidence level	Ib
Number of Patients	316
Patient characteristics	316 adults presenting to the psychiatric emergency room with agitation or dangerous behaviour requiring intramuscular sedation, for whom an attending doctor was available to record the diagnosis and severity of the episode.
Intervention	Single intramuscular injection of haloperidol (5 or 10 mg) or haloperidol (5 or 10 mg) plus promethazine (up to 50 mg). In the haloperidol alone group, 29 % received 5 mg and 71 % received 10 mg. In the haloperidol plus promethazine group 50 % received 5 mg haloperidol and 50 % received 10 mg.
Comparison	
Length of Follow up	20 min for primary outcomes, 2 weeks for secondary outcomes
Outcome measures	*Primary outcome:* proportion of patients tranquil (calm and non-agitated with no threatening behaviour) or asleep at 20 min. *Secondary outcomes included:* tranquil or asleep at 40, 60 and 120

	min; need for further medical attention within 24 h; adverse events.
Results / Effect size	Haloperidol plus promethazine increased the proportion of patients tranquil or asleep at 20 min compared with haloperidol alone (proportion tranquil or asleep: 72 % with combined treatment vs 55 % with haloperidol alone; RR 1.30, 95 % CI 1.10 to 1.55). The combined treatment increased the proportion of patients asleep at 20 min (19 % with combined treatment vs 8 % with haloperidol alone; RR 2.33, 95 % CI 1.26 to 4.27). There was no difference between interventions in the proportion of patients tranquil or asleep after 20 min (40 min: RR 1.07, 95 % CI 0.95 to 1.20; 60 min: RR 1.07, 95 % CI 0.97 to 1.17; 120 min: RR 1.03, 95 % CI 0.96 to 1.11). Haloperidol plus promethazine increased the proportion of patients who did not need to have a doctor recalled (77 % with combined treatment vs 65 % with haloperidol alone; RR 1.18, 95 % CI 1.02 to 1.36). Haloperidol alone increased the risk of serious adverse events compared with haloperidol plus promethazine (1 % with combined treatment vs 7 % with haloperidol alone; RR 0.09, 95 % CI 0.01 to 0.68). Most of the serious adverse events in the haloperidol alone group were acute dystonia (10 cases vs none with haloperidol plus promethazine).
Source of Funding	Brazilian Research Council.

Bibliographic citation Baldaçara L, Sanches M, Cruz Cordeiro D, Parolin Jackowski A: Rapid tranquilization for agitated patients in emergency psychiatric rooms: a randomized trial of olanzapine, ziprasidone, haloperidol plus promethazine, haloperidol plus midazolam and haloperidol alone. Revista Brasileira de Psiquiatria 2011; vol 33 nº 1 mar2011	
Study type	RCT
Evidence level	Ib
Number of Patients	150
Patient characteristics	Patients with agitation caused by psychotic or bipolar disorder
Intervention	intramuscular olanzapine, ziprasidone, haloperidol plus promethazine, haloperidol plus midazolam and haloperidol alone
Comparison	
Length of Follow up	12 h
Outcome measures	Overt Agitation Severity Scale, Overt Aggression Scale and Ramsay Sedation Scale
Results / Effect size	All medications produced a calming effect within one hour of

	administration, but only olanzapine and haloperidol reduced agitation by less than 10 points, and only olanzapine reduced aggression by less than four points in the first hour. After twelve hours, only patients treated with haloperidol plus midazolam had high levels of agitation and aggression and also more side effects. Ziprasidone, olanzapine and haloperidol alone had more stable results for agitation control, while ziprasidone, haloperidol plus promethazine and olanzapine had stable results for aggression control.
Source of Funding	Funding: no. Conflicts of Interest: yes.

Bibliographic citation Huang CL, Hwang TJ, Chen YH, Huang GH, Hsieh MH, Chen HH, Hwu HG: Intramuscular olanzapine versus intramuscular haloperidol plus lorazepam for the treatment of acute schizophrenia with agitation: An open-label, randomized controlled trial. J Formos Med Assoc. 2015 May;114(5):438-45. doi: 10.1016/j.jfma.2015.01.018. Epub 2015 Mar 17.	
Study type	RCT
Evidence level	Ib
Number of Patients	67
Patient characteristics	Acutely agitated patients with schizophrenia or schizoaffective disorder
Intervention	10 mg IM olanzapine
Comparison	5 mg IM haloperidol plus 2 mg IM lorazepam
Length of Follow up	24 h
Outcome measures	Agitation was measured with Positive and Negative Syndrome Scale Excited Component (PANSS-EC) and Agitatione Calmness Evaluation Scale (ACES) during the first 2 hours and at 24 hours after the first injection. Safety was assessed using the Simpsone Angus Scale and Barnes Akathisia Rating Scale and by recording adverse events at 24 hours following the first injection. The Clinical Global Impression-Severity scale was also rated.
Results / Effect size	The PANSS-EC scores decreased significantly at 2 hours after the first injection in both groups (olanzapine: -10.2, p < 0.001; haloperidol + lorazepam: -9.9, p < 0.001). Haloperidol plus lorazepam was not inferior to olanzapine in reducing agitation at 2 hours. There were no significant differences in PANSS-EC or ACES scores between the two groups within 2 hours following the first injection. The frequencies of adverse events and changes in Clinical Global Impression-Severity, SimpsoneAngus Scale, and Barnes Akathisia Rating Scale scores from baseline to 24 hours

	showed no significant differences between the groups.
Source of Funding	The study was supported by a grant from Mr Ya-Jen Cheng's Foundation, Taipei, Taiwan. The preparation of this manuscript was supported by a grant from National Science Council (97-2314-B-002-129-MY3). Eli Lilly and Company supplied short-acting injectable olanzapine. The authors also acknowledge statistical assistance provided by the Taiwan Clinical Trial Bioinformatics and Statistical Center, Training Center, and Pharmacogenomics Laboratory (which was founded by the National Research Program for Biopharmaceuticals at the Ministry of Science and Technology of Taiwan; MOST 103-2325-B-002-033).

Bibliographic citation Walther S et al. Rapid Tranquilization of Severely Agitated Patients With Schizophrenia Spectrum Disorders. A Naturalistic, Rater-Blinded, Randomized, Controlled Study With Oral Haloperidol, Risperidone, and Olanzapine. J Clin Psychopharmacol 2014;34: 124Y128	
Study type	RCT
Evidence level	Ib
Number of Patients	43
Patient characteristics	severely agitated patients at acute care psychiatric units From February 2004 until September 2005, all patients admitted to the acute care inpatient units of the University Hospital of Psychiatry Bern, Switzerland, were screened for schizophrenia, schizoaffective, or schizophreniform disorder according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition criteria. Diagnoses were made based on psychiatric examination and review of all case files. Only subjects aged between 18 and 55 years were further evaluated. Subjects with relevant medical or neurological disorders, whowere pregnant, or who had ongoing intake of illicit drugs and alcohol were excluded.
Intervention	Participants were randomly assigned to receive either daily haloperidol 15 mg, olanzapine 20 mg, or risperidone 2 to 6 mg over 5 days.
Comparison	
Length of Follow up	96 h
Outcome measures	Symptom severity was assessed using the Positive and Negative Syndrome Scale (PANSS).18 We used the PANSS psychotic agitation subscale (PANSS-PAS) including PANSS items hallucinatory behavior (P3), excitement (P4), hostility (P7),

	uncooperativeness (G8), and poor impulse control (G14) to select subjects who were highly agitated. The PANSS-PAS was used in previous studies10 and is similar to the PANSS excitement subscale used in comparable studies on agitation with a range of 5 to 35 points. Further assessments included the Abnormal Involuntary Movement Scale (AIMS) the Simpson Angus Scale for Parkinsonism (SAS) and the Barnes Akathisia Rating Scale (BARS).
Results / Effect size	All drugs were effective for rapid tranquilization within 2 hours. Over 5 days, the course differed between agents (P G 0.001), but none was superior. Dropouts occurred only in the risperidone and olanzapine groups. Men responded better to treatment than did women during the initial 2 hours (P = 0.046) as well as over the 5-day course (P G 0.001). No difference between drug groups was observed regarding diazepam or biperiden use.
Source of Funding	Source of funding: none, conflicts of interests: yes

Bibliographic citation Lavania S, Praharaj SK, Bains HS, Sinha V, Kumar A. Efficacy and Safety of Levosulpiride Versus Haloperidol Injection in Patients With Acute Psychosis: A Randomized Double-Blind Study. Clin Neuropharmacol. 2016 Jul-Aug;39(4):197-200. doi: 10.1097/WNF.0000000000000161.	
Study type	RCT
Evidence level	Ib
Number of Patients	60
Patient characteristics	drug-naive patients having acute psychosis
Intervention	intramuscular haloperidol (10-20 mg/d) or levosulpiride (25-50 mg/d) for 5 days
Comparison	
Length of Follow up	5 d
Outcome measures	All patients were rated on Brief Psychiatric Rating Scale (BPRS), Overt Agitation Severity Scale (OASS), Overt Aggression Scale-Modified (OAS-M) scores, Simpson Angus Scale (SAS), and Barnes Akathisia Rating Scale (BARS).
Results / Effect size	Repeated-measures ANOVA for BPRS scores showed significant effect of time (P < 0.001) and a trend toward greater reduction in scores in haloperidol group as shown by group × time interaction (P = 0.076). Repeated-measures ANOVA for OASS showed significant effect of time (P < 0.001) but no group × time interaction. Repeated-measures ANOVA for OAS-M scores

	showed significant effect of time (P < 0.001) and greater reduction in scores in haloperidol group as shown by group × time interaction (P = 0.032). Lorazepam requirement was much lower in haloperidol group as compared with those receiving levosulpiride (P = 0.022). Higher rates of akathisia and extrapyramidal symptoms were noted in the haloperidol group.
Source of Funding	Conflicts of Interest and Source of Funding: The authors have no conflicts of interest to declare.

Bibliographic citation Garza-Trevino ES, Hollister LE, Overall JE, Alexander WF: Efficacy of combinations of intramuscular antipsychotics and sedative-hypnotics for control of psychotic agitation. American Journal of Psychiatry 1989; 146:1598-1601	
Study type	RCT
Evidence level	Ib
Number of Patients	68
Patient characteristics	22 manic patients, 16 schizophrenic patients, 16 atypical psychotic patients, and 14 patients with miscellaneous diagnoses. All had baseline agitation ratings (100-mm scale) of 50 or greater; however, the median baseline score was 60.
Intervention	a combination of haloperidol, 5 mg, and lorazepam, 4 mg; 5 mg of haloperidol alone; or 4 mg of lorazepam alone.
Length of Follow up	Not reported for the RCT, 210 minutes in the pilot study
Outcome measures	100-mm scale
Results / Effect size	These analyses confirmed that the combination treatment was significantly (p<0,05) superior to each of the components in producing rapid tranquilization after statistical correction for differences in baseline severity of agitation. In addition, these analyses confirmed that patients with higher baseline agitation scores were significantly (p<0,05) less likely to reach the tranquilization criterion in 30 minutes.
Source of Funding	Not reported

Bibliographic citation Battaglia J MS, Rush J, Kang J, Mendoza R, Leedom L, Dubin W, McGlynn C, Goodman L: Haloperidol, lorazepam, or both for psychotic agitation? A multicenter, prospective, double-

blind, emergency department study. The American Journal of Emergency Medicine 1997; 15:335-340	
Study type	RCT
Evidence level	Ib
Number of Patients	98
Patient characteristics	psychotic, agitated, and aggressive patients (73 men and 25 women)
Intervention	intramuscular injections of lorazepam (2 mg), haloperidol (5 mg), or both in combination (1 to 6 injections of the same study drug within 12 hours, based on clinical need)
Length of Follow up	At least 12 h after last injection
Outcome measures	ABS, MBPRS, CGI, Alertness Scale
Results / Effect size	Effective symptom reduction was achieved in each treatment group with significant (P < .01) mean decreases from baseline at every hourly ABS evaluation. Significant (P < .05) mean differences on the ABS (hour 1) and MBPRS (hours 2 and 3) suggest that tranquilization was most rapid in patients receiving the combination treatment. Study event incidence (side effects) did not differ significantly between treatment groups, although patients receiving haloperidol alone tended to have more extrapyramidal system symptoms. The superior results produced by the combination treatment support the use of lorazepam plus haloperidol as the treatment of choice for acute psychotic agitation.
Source of Funding	Supported in part by a grant from Wyeth-Ayerst Research.

Bibliographic citation Foster S, Kessel J, Berman ME, Simpson GE: Efficacy of lorazepam and haloperidol for rapid tranquillisation in a psychiatric emergency room setting. International Clinical Psychopharmacology 1997; 12:175-179	
Study type	RCT
Evidence level	Ib
Number of Patients	37
Patient characteristics	highly agitated patients exhibiting psychotic symptoms presenting at a psychiatric emergency room service
Intervention	Lorazepam (either intramuscular injection or oral concentrate)
Comparison	Haloperidol (either intramuscular injection or oral concentrate)
Length of Follow up	4 h
Outcome measures	BPRS, CGI
Results / Effect size	Both medications reduced symptom ratings on the Brief

	Psychiatric Rating Scale and Global Clinical Impression of Overall Symptom Severity Scale. Global Clinical Impression scores for the two medication groups did not differ significantly either at baseline or at 4 h after entry into the study. However, Global Clinical Impression scores of patients in the lorazepam group were less severe at intermittent ratings. The groups did not differ on the Brief Psychiatric Rating Scale at any rating time. No differences were found either in the number of doses administered or in the administration route selected.
Source of Funding	National Alliance for Resaearch in Schizophrenia and Depression.

Bibliographic citation Alexander J, Tharyan P, Adams CE, John T, Mol C, Philip J: Rapid tranquilisation of violent or agitateds patients in a psychiatric emergency setting: a pragmatic randomised trial of intramuscular Lorazepam versus haloperidol plus promethazin. British Journal of Psychiatry 2004; 185:63-69	
Study type	Pragmatic, randomised clinical trial.
Evidence level	Ib
Number of Patients	200
Patient characteristics	Consecutive patients were assessed and were eligible for trial entry if the attending physician felt that intramuscular sedation was clearly indicated because of agitation, aggression or violent behaviour, and if the physician did not feel that either one of the interventions posed an additional risk for the patient. In keeping with prevailing clinical practice in this country, consent was obtained from a responsible relative if patients refused, or lacked capacity to consent to treatment by virtue of severe mental illness. For this trial relatives were fully informed and their written consent obtained; patients without a responsible relative were excluded.
Intervention	intramuscular lorazepam (4 mg)
Comparison	intramuscular haloperidol (10 mg) plus promethazine (25-50 mg) mix
Length of Follow up	2 weeks
Outcome measures	Patients were rated at each assessment point on whether they were tranquil or asleep; in addition, the time of onset of tranquillisation and sleep were noted. Participants were considered to be tranquil when they were calm and not exhibiting agitated, aggressive or dangerous behaviour. They were considered to be asleep if, on inspection, they appeared to be sound asleep and were not aroused by ambient disturbances; the

	depth of this apparent slumber was not assessed further. They were also rated on the Clinical Global Impression – Severity (CGI–S) scale at entry, and the CGI–Improvement (CGI–I) scale with respect to aggression and violence, the Simpson–Angus extrapyramidal side-effects rating scale and the Barnes Akathisia Scale at each assessment point; any other clinically important adverse effect, especially dystonia, was also noted. These assessments were conducted only on participants who were awake, as extrapyramidal symptoms are usually not apparent during sleep or, in the case of dystonia or akathisia, are likely to prevent sleep. Other outcomes within the first 4 h were the use of additional medication for control of agitated or aggressive behaviour, the use of physical restraints, the need for further medical attention and numbers absconding. Participants were also followed up 2 weeks later to check for adverse effects or adverse outcomes and compliance with oral medication. The primary outcome was 'tranquil or asleep by 4 h'.
Results / Effect size	At blinded assessments 4 h later (99.5 % follow-up), equal numbers in both groups (96 %) were tranquil or asleep. However, 76 % given the haloperidol-promethazine mix were asleep compared with 45 % of those allocated lorazepam (RR=2.29,95 % CI 1.59-3.39; NNT=3.2,95 % CI 2.3-5.4). The haloperidol-promethazine mix produced a faster onset of tranquillisation/sedation and more clinical improvement over the first 2 h. Neither intervention differed significantly in the need for additional intervention or physical restraints, numbers absconding, or adverse effects.
Source of Funding	This trial was funded by intramural research grants from the Fluid Research Fund of the Christian Medical College, Vellore and the Cochrane Schizophrenia Group general fund.

Bibliographic citation Allen MH, Feifel D, Lesem MD et al (2011) Efficacy and safety of loxapine for inhalation in the treatment of agitation in patients with schizophrenia: a randomized, double-blind, placebo-controlled trial. J Clin Psychiatry 72:1313–1321	
Study type	RCT
Evidence level	Ib
Number of Patients	129
Patient characteristics	agitated patients with schizophrenia or schizoaffective disorder
Intervention	inhalation of 5 or 10 mg of loxapine
Comparison	placebo

Length of Follow up	6 d
Outcome measures	The primary efficacy measure was change on the Positive and Negative Syndrome Scale-excited component (PANSS-EC) 2 hours following treatment. Secondary outcomes included the Clinical Global Impressions-Improvement scale (CGI-I), Behavioral Activity Rating Scale (BARS), and time to first rescue medication.
Results / Effect size	Differences were statistically significant (P < .05) between placebo and both 5-mg and 10-mg doses on the CGI-I and the CGI-I responder analyses at 2 hours and in time to first rescue medication, and they were statistically significant (P < .05) between placebo and 10-mg loxapine on the PANSS-EC 20 minutes after administration continuing through 2 hours and in change from baseline BARS. Three serious adverse events occurred at least 6 days after treatment, but none were judged related to study treatment. The most common adverse events were sedation and dysgeusia (22 % and 17 %, respectively, in the 10-mg group, and 14 % and 9 %, respectively, in the placebo group).
Source of Funding	Alexza Pharmaceuticals, Inc.

Bibliographic citation Kwentus J, Riesenberg RA, Marandi M et al (2012) Rapid acute treatment of agitation in patients with bipolar I disorder: a multicenter, randomized, placebo-controlled clinical trial with inhaled loxapine. Bipolar Disord 14:31–40	
Study type	RCT
Evidence level	Ib
Number of Patients	314
Patient characteristics	agitated patients with bipolar I disorder (manic or mixed episodes)
Intervention	inhaled loxapine 5 mg or 10 mg
Comparison	Inhaled placebo
Length of Follow up	24 h
Outcome measures	The primary efficacy endpoint was change from baseline in the Positive and Negative Syndrome Scale-Excited Component (PANSS-EC) score two hours after Dose 1. The key secondary endpoint was the Clinical Global Impression-Improvement score at two hours after Dose 1. Additional endpoints included the changes from baseline in the PANSS-EC from 10 min through 24 hours after Dose 1. Safety was assessed by adverse events, vital signs, physical examinations, and laboratory tests.

Results / Effect size	For the primary and key secondary endpoints, both doses of inhaled loxapine significantly reduced agitation compared with placebo. Reduced agitation, as reflected in PANSS-EC score, was evident 10 min after Dose 1 with both doses. Inhaled loxapine was well tolerated, and the most common adverse events were known effects of loxapine or minor oral effects common with inhaled medications (dysgeusia was reported in 17 % of patients receiving active drug versus 6 % receiving placebo).
Source of Funding	Alexza Pharmaceuticals

Bibliographic citation Lesem MD, Tran-Johnson TK, Riesenberg RA et al (2011) Rapid acute treatment of agitation in individuals with schizophrenia: multicentre, randomised, placebo-controlled study of inhaled loxapine. Br J Psychiatry 198:51–58	
Study type	RCT
Evidence level	Ib
Number of Patients	233
Patient characteristics	Males and females 18-65 years old Schizophrenia and agitation PANSS > 14 and a score of >4 on at least one item Good general health Non-pregnant, non-lactating
Intervention	One, two or three doses of loxapine (5 or 10 mg)
Comparison	placebo
Length of Follow up	24 h
Outcome measures	Change from baseline in PANSS-EC 2h after dose one, CGI-I 2 h after dose one
Results / Effect size	Inhaled loxapine (5 and 10 mg) significantly reduced agitation compared with placebo as assessed by primary and key secondary end-points. Reduced PANSS-EC was evident 10 minutes after dose one with both 5 and 10 mg doses. Inhaled loxapine was well tolerated, and the most common adverse events were known effects of loxapine (e.g. sedation) or minor oral effects common with inhaled medications. Three people had wheezing or bronchospasm, one experienced severe sedation and one neck dystonia and oculogyration.
Source of Funding	Alexza Pharmaceuticals

Bibliographic citation Kishi T, Matsunaga S, Iwata N: Intramuscular olanzapine for agitated patients: A systematic review and meta-analysis of randomized controlled trials. J Psychiatr Res. 2015 Sep;68:198-209. doi: 10.1016/j.jpsychires.2015.07.005. Epub 2015 Jul 6.	
Study type	Review
Evidence level	Ia
Results / Effect size	We identified 13 RCTs (19 comparisons) as follows: 7 comparisons with 1059 patients for OLA-IM versus placebo; 5 comparisons with 613 patients for OLA-IM versus haloperidol (HAL)-IM; 2 comparisons with 108 patients for OLA-IM versus ziprasidone (ZIP)-IM; 2 comparisons with 110 patients for OLA-IM versus HAL-IM plus midazolam; and 3 comparisons with 412 patients for OLA-IM versus HAL-IM plus promethazine, 2 comparisons with 355 patients for OLA-IM versus lorazepam-IM (LOR-IM); and 1 comparison with 67 patients for OLA-IM versus HAL-IM plus LOR-IM. OLA-IM was superior to placebo in both Positive and Negative Syndrome Scale-Excited Component (PANSS-EC) and Agitation Calmness Evaluation Scale (ACES) scores 2 h after first injection, and had a comparable side effect profile, including over sedation, extrapyramidal symptoms, akathisia, and anticholinergic use. While there was no significant difference in PANSS-EC scores after 2 h between OLA-IM and HAL-IM, OLA-IM outperformed HAL-IM in ACES after 2 h. Compared with HAL-IM, OLA-IM was associated with fewer side effects, including anticholinergic use, akathisia, extrapyramidal symptoms, and dystonia, and marginally less QT prolongation compared with HAL-IM.
Source of Funding	No funding sources were received for this study.

Bibliographic citation Marder SR1, Sorsaburu S, Dunayevich E, Karagianis JL, Dawe IC, Falk DM, Dellva MA, Carlson JL, Cavazzoni PA, Baker RW: Case reports of postmarketing adverse event experiences with olanzapine intramuscular treatment in patients with agitation. J Clin Psychiatry. 2010 Apr;71(4):433-41. doi: 10.4088/JCP.08m04411gry. Epub 2010 Feb 9.	
Study type	Review of Case reports
Evidence level	III
Results / Effect size	The estimated worldwide patient exposure to olanzapine IM from January 1, 2004, through September 30, 2005, was 539,000; 160 cases containing AEs were reported from patients with schizophrenia (30 %), bipolar disorder (21 %), unspecified

	psychosis (10 %), dementia (8 %), and depression (5 %). Many reported concomitant treatment with benzodiazepines (39 %) or other antipsychotics (54 %). The most frequently reported events involved the following organ systems: central nervous (21 %), cardiac (12 %), respiratory (6 %), vascular (6 %), and psychiatric (5 %). Eighty-three cases were considered serious, including 29 fatalities. In these fatalities, concomitant benzodiazepines or other antipsychotics were reported in 66 % and 76 % of cases, respectively. The most frequently reported events in the fatal cases involved the following organ systems: cardiovascular (41 %), respiratory (21 %), general (17 %), and central nervous (10 %). The majority of fatal cases (76 %) included comorbid conditions and potentially clinically significant risk factors for AEs.
Source of Funding	Eli Lilly.

Bibliographic citation Wilson MP, MacDonald K, Vilke GM, Feifel D: A comparison of the safety of olanzapine and haloperidol in combination with benzodiazepines in emergency department patients with acute agitation. J Emerg Med. 2012 Nov;43(5):790-7. doi: 10.1016/j.jemermed.2011.01.024. Epub 2011 May 20.	
Study type	structured retrospective chart review
Evidence level	III
Number of Patients	96
Patient characteristics	The only inclusion criteria, aside from having received parenteral haloperidol, was documentation in the chart of vital signs and oxygen saturation monitoring before medication administration and within 4 h afterwards. Patients were excluded if they received haloperidol orally instead of intramuscularly, or if they received a long acting haloperidol decanoate injection. Patients who received multiple doses of haloperidol during an ED visit were entered in the analysis only once for the first dose of this medication.
Intervention	parenteral haloperidol either with or without benzodiazepines
Comparison	parental olanzapine either with or without benzodiazepines
Length of Follow up	4 h
Outcome measures	measurement of vital signs and ethanol levels
Results / Effect size	There were 96 patients (71 haloperidol, 25 olanzapine) who met inclusion criteria. No patient in the olanzapine + benzodiazepine group had hypotension, although one patient in the olanzapine-only group did (6.7 %); 2 patients in the haloperidol +

	benzodiazepines group (5.1 %) and 2 patients in the haloperidol-only group (6.3 %) had hypotension. In alcohol-negative (ETOH-) patients, neither olanzapine alone nor olanzapine + benzodiazepines was associated with decreased oxygen saturations. In ETOH+ patients, olanzapine alone was not associated with decreased oxygen saturations, but olanzapine + benzodiazepines were associated with lower oxygen saturations than haloperidol + benzodiazepines.
Source of Funding	Source of funding: none, conflicts of interests: yes

Bibliographic citation Currier GW, Chou JC, Feifel D, Bossie CA, Turkoz I, Mahmoud RA, Gharabawi GM: Acute treatment of psychotic agitation: A randomized comparison of oral treatment with risperidone and lorazepam versus intramuscular treatment with haloperidol and lorazepam. Journal of Clinical Psychiatry 2004; 65:386-94	
Study type	RCT
Evidence level	Ib
Number of Patients	162
Patient characteristics	patients exhibiting agitation associated with active psychosis
Intervention	oral treatment with 2 mg of risperidone plus 2 mg of lorazepam
Comparison	intramuscular treatment with 5 mg of haloperidol plus 2 mg of lorazepam
Length of Follow up	
Outcome measures	The change scores on a 5-item acute-agitation cluster from the Positive and Negative Syndrome Scale (hallucinatory behavior, excitement, hostility, uncooperativeness, and poor impulse control) were the main outcome measure.
Results / Effect size	Mean acute-agitation cluster scores were similar in the 2 groups at baseline. Mean score improvements at 30, 60, and 120 minutes after dosing were significant at each timepoint in both groups ($p < .0001$) and were similar in both groups ($p > .05$). Both treatments were well tolerated.
Source of Funding	Janssen Pharmaceutica Products, L.P., Titusville, N.J.

Bibliographic citation Barak Y, Mazeh D, Plopski I, Baruch Y: Intramuscular ziprasidone treatment of acute psychotic agitation in elderly patients with schizophrenia. American Journal of Geriatric Psychiatry 2006; 14:629-633

Study type	Prospektive Studie ohne Vergleichsgruppe
Evidence level	III
Number of Patients	21
Patient characteristics	elderly patients (60 years of and older) admitted to a psychogeriatric ward for acute psychotic agitation six male and 15 female mean age 71.4 +/- 1.3 years (range: 60-81 years)
Intervention	three days of flexible-dose i.m. ziprasidone, after an initial dose of 10-20 mg, a subsequent dose of 10-20 mg could be given after 12 hours if needed (maximum daily dose: 40 mg)
Comparison	
Length of Follow up	3 d
Outcome measures	All treatment emergent side effects and adverse events along with the investigators' assessments of severity were systematically recorded as the primary outcome. The Brief Psychiatric Rating Scale (BPRS) and the Behavioral Activity Rating Scale (BARS) were the secondary outcomes.
Results / Effect size	There was one adverse event in a patient with untreated benign prostatic hypertrophy who developed urinary retention. Two side effects of mild severity that resolved spontaneously were observed: blurred vision and sedation. The BPRS decreased by 26.8 points after three days of treatment (p = 0.001). The BARS score, reflecting agitation, decreased significantly after each injection, reaching maximal decrease of 2.14 points at completion of study (p = 0.001).
Source of Funding	This study was supported with an independent research grant from Pfizer, Inc.

Bibliographic citation Kohen I, Preval H, Southhard R, Francis A: Naturalistic study of intramuscular ziprasidone versus conventional agents in agitated elderly patients: retrospective findings from a psychiatric emergency service. American Journal of Geriatric Pharmacotherapy 2005; 3:240-245	
Study type	Naturalistic study
Evidence level	III
Number of Patients	35
Patient characteristics	Patients aged > 65 years who received a single20 mg dose of IM ziprasidone for the treatment of acute agitation.
Intervention	a single 20-mg dose of IM ziprasidone
Comparison	IM haloperidol, with or without lorazepam

Length of Follow up	
Outcome measures	In some patients in the ziprasidone group, the effects of the drug on agitation were assessed prospectively by blinded psychiatrists using the Behavioural Activity Rating Scale (BARS) (1--difficult or unable to arouse to 7--violent, requires restraint). Also included in the analysis were data concerning use of rescue medication (oral or parenteral) other than the study drug within 2 hours of initial treatment, restraint time, and adverse events (changes in vital sign measurements and electrocardiography [ECG]).
Results / Effect size	The database revealed 15 patients who received ziprasidone (9 men, 6 women; age range, 65-87 years) and 20 patients who were included in the CT sample (13 men, 7 women; age range, 65-88 years). In the 6 cases rated on the BARS, the mean (SE) baseline score was high (6.8 [0.1]), with a decrease to 4.0 (0.4) (P < 0.05) at 45 minutes after study drug administration and to 2.8 (0.4) (P < 0.01) at 120 minutes. Rescue medication was needed in 4 ziprasidone cases and 2 CT cases (P = NS), and mean (SE) restraint times did not vary significantly between groups (ziprasidone [n = 12], 85 [15] minutes; CT [n = 17], 83 [12] minutes). No clinically significant effects on blood pressure or heart rate were noted, and no cardiac or other adverse events were reported. ECG results with ziprasidone (n = 3) or CT (n = 6) were unremarkable.
Source of Funding	Not reported

Bibliographic citation Greco KE, Tune LE, Brown FW, Van Horn WA: A retrospective study of the safety of intramuscular Ziprasidone in agitated elderly patients. Journal of Clinical Psychiatry 2005; 66:928-929	
Study type	retrospective study
Evidence level	III
Number of Patients	23
Patient characteristics	complaint of dementia (DSM-IV) with agitation
Intervention	intramuscular Ziprasidone
Outcome measures	QTc-Intervalls
Results / Effect size	There was no significant difference in the QTc interval between the baseline and the post-ziprasidone values. One patient had a QTc greater than 500 ms and 25 % over baseline, and therefore the medication was discontinued. The mean prolongation of the QTc interval was only 0.5 ms. There were no episodes of torsades de pointes. Other medications that the patients were taking did

	not appear to affect the QTc interval in an expected manner.
Source of Funding	This study was supported by a fellowship from Summer Training on Aging Research Topics-Mental Health, San Diego, Calif., and a grant from the National Institute of Mental Health, Bethesda, Md.

Bibliographic citation Citrome L, Volavka J, Czobor P, Brook S, Loebel A, Mandel FS: Efficacy of ziprasidone against hostility in schizophrenia: Post hoc analysis of randomized, open-label study data. Journal of Clinical Psychiatry 2006; 67:638-642	
Study type	a randomized, rater-blinded, 6-week, open-label study
Evidence level	Ib
Number of Patients	572
Patient characteristics	inpatients diagnosed with DSM-IV schizophrenia or schizoaffective disorder
Intervention	sequential intramuscular and oral ziprasidone
Comparison	haloperidol
Length of Follow up	42 d
Outcome measures	The Brief Psychiatric Rating Scale (BPRS) was the principal outcome measure. To determine the effect of ziprasidone on hostility, post hoc analyses of scores on the hostility item from the BPRS were conducted. Introducing positive symptoms and akathisia as covariates tested specific antihostility effect.
Results / Effect size	Ziprasidone demonstrated specific antihostility effects over time throughout the 42-day study period and statistically significant superiority to haloperidol on this measure in the first week of treatment ($p = .0149$ at first evaluation [day 1, 2, or 3]; $p = .0358$ at day 7).
Source of Funding	Pfizer Inc., New York, N.Y., supported this work. The data were provided by Pfizer, Inc., to Dr. Citrome, and Dr. Czobor performed the statistical analyses independent of Pfizer, Inc.

Bibliographic citation Pascual JC, Madre M, Soler J, Barrachina J, Campins MJ, Alvarez E, Perez V: Injectable atypical antipsychotics for agitation in borderline personality disorder. Pharmacopsychiatry 2006; 39:117-118	
Study type	Naturalistic-open-label study, Case reports
Evidence level	III
Number of Patients	20

Patient characteristics	Patients with borderline personality disorder attended at the psychiatric emergency service
Intervention	10 mg Olanzapine, 20 mg Ziprasidone
Comparison	Patients with Psychotic disorder
Length of Follow up	6 h
Outcome measures	PANSS-EC, ACES Need for physical restraint, other medications Vital signs Spontaneously reported adverse effects
Results / Effect size	PANSS-EC scores in BPD-patients decreased significantly and they decreased significantly more than in the psychosis group. No serious adverse effects were observed. Two psychotic and one BPD-patient experienced over-sedation, one BPD-patient experienced well tolerated hypotension.
Source of Funding	Not reported.

Bibliographic citation Jayakody K, Gibson RC, Kumar A, Gunadasa S. Zuclopenthixol acetate for acute schizophrenia and similar serious mental illnesses. Cochrane Database of Systematic Reviews 2012, Issue 4. Art. No.: CD000525. DOI: 10.1002/14651858.CD000525.pub3.	
Study type	Review
Evidence level	Ia
Results / Effect size	We found no data for the primary outcome, tranquillisation. Compared with haloperidol, zuclopenthixol acetate was no more sedating at two hours (n = 40, 1 RCT, RR 0.60, 95 % CI 0.27 to 1.34). People given zuclopenthixol acetate were not at reduced risk of being given supplementary antipsychotics (n = 134, 3 RCTs, RR 1.49, 95 % CI 0.97 to 2.30) although additional use of benzodiazepines was less (n = 50, 1 RCT, RR 0.03, 95 % CI 0.00 to 0.47). People given zuclopenthixol acetate had fewer injections over seven days compared with those allocated to haloperidol IM (n = 70, 1 RCT, RR 0.39, 95 % CI 0.18 to 0.84, NNT 4, CI 3 to 14). We found no data on more episodes of aggression or harm to self or others. One trial (n = 148) reported no significant difference in adverse effects for people receiving zuclopenthixol acetate compared with those allocated haloperidol at one, three and six days (RR 0.74, 95 % CI 0.43 to 1.27). Compared with haloperidol or clotiapine, people allocated zuclopenthixol did not seem to be at more risk of a range of movement disorders (< 20 %). Three studies found no difference in the proportion of people getting blurred vision/dry mouth (n = 192, 2 RCTs, RR at 24 hours 0.90, 95

	% CI 0.48 to 1.70). Similarly, dizziness was equally infrequent for those allocated zuclopenthixol acetate compared with haloperidol (n = 192, 2 RCTs, RR at 24 hours 1.15, 95 % CI 0.46 to 2.88). There was no difference between treatments for leaving the study before completion (n = 522, RR 0.85, 95 % CI 0.31 to 2.31). One study reported no difference in adverse effects and outcome scores, when high dose (50-100 mg/injection) zuclopenthixol acetate was compared with low dose (25-50 mg/injection) zuclopenthixol acetate.
Source of Funding	Not reported.

Freiheitsbeschränkende Maßnahmen

Artikel -Nr.	Studien-Nr.	Sub-nummer	
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2	2	1	Ala-Aho, S.; Hakko, H.; Saarento, O. (2003): Reduction of involuntary seclusions in a psychiatric ward. In: Duodecim; laaketieteellinen aikakauskirja 119 (20), S. 1969–1975.
3	3	1	Ash, David; Suetani, Shuichi; Nair, Jayakrishnan; Halpin, Matthew (2015): Recovery-based services in a psychiatric intensive care unit - the consumer perspective. In: Australas Psychiatry 23 (5), S. 524–527. DOI: 10.1177/1039856215593397.
4	4	1	Belanger, S. (2001): The 'S&R challenge': reducing the use of seclusion and restraint in a state psychiatric hospital. In: Journal for healthcare quality: official publication of the National Association for Healthcare Quality 23 (1), S. 19–24.
5	5	1	Bell, A.; Gallacher, N. (2016): Succeeding in Sustained Reduction in the use of Restraint using the Improvement Model. In: BMJ quality improvement reports 5 (1). DOI: 10.1136/bmjquality.u211050.w4430.
6	6	1	Blair, E. W.; Woolley, S.; Szarek, B. L.; Mucha, T. F.; Dutka, O.; Schwartz, H. I. et al. (2016): Reduction of Seclusion and Restraint in an Inpatient Psychiatric Setting: A Pilot Study. In: The Psychiatric quarterly. DOI: 10.1007/s11126-016-9428-0.
7	7	1	Blair, M.; Moulton-Adelman, F. (2015): The Engagement Model for reducing seclusion and restraint: 13 years later. In: Journal of psychosocial nursing and mental health services 53 (3), S. 39–45. DOI: 10.3928/02793695-20150211-01.
7b	7	2	Murphy, Bennington-Davis (2005): Restraint and seclusion: The model for eliminating their use in healthcare.
8	8	1	Hardesty S; Borckardt JJ; Hanson R; Grubaugh AL; Danielson CK; Madan A et al. (2007): Evaluating initiatives to reduce seclusion and restraint. In: J Healthc Qual 29 (4), S. 46–55.
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8b	8	3	Borckardt, Jeffrey J.; Grubaugh, Anouk L.; Pelic, Christopher G.; Danielson, Carla Kmett; Hardesty, Susan J.; Frueh, B. Christopher (2007): Enhancing patient safety in psychiatric settings. In: Journal of psychiatric practice 13 (6), S. 355–361. DOI: 10.1097/01.pra.0000300121.99193.61.
8c	8	4	Madan, Alok; Borckardt, Jeffrey J.; Grubaugh, Anouk L.; Danielson, Carla Kmett; McLeod-Bryant, Stephen; Cooney, Harriet et al. (2014): Efforts to reduce seclusion and restraint use in a state psychiatric hospital: a ten-year perspective. In: Psychiatr Serv 65 (10), S. 1273–1276. DOI: 10.1176/appi.ps.201300383.
9	9	1	Boumans, Christien E.; Egger, Jos I. M.; Souren, Pierre M.; Hutschemaekers, Giel J. M. (2014): Reduction in the use of seclusion by the methodical work approach. In: Int J Ment Health Nurs 23 (2), S. 161–170. DOI: 10.1111/inm.12037.
10	10	1	Bowers L; Brennan G; Flood C; Lipang M; Oladapo P (2006): Preliminary outcomes of a trial to reduce conflict and containment on acute psychiatric wards: City Nurses. In: J Psychiatr Ment Health Nurs 13 (2), S. 165–172. DOI: 10.1111/j.1365-2850.2006.00931.x.
11	11	1	Bowers L; Flood C; Brennan G; Allan T (2008): A replication study of the city nurse intervention: reducing conflict and containment on three acute psychiatric wards. In: J Psychiatr Ment Health Nurs 15 (9), S. 737–742. DOI: 10.1111/j.1365-2850.2008.01294.x.
12	12	1	Cibis, M. L.; Wackerhagen, C.; Muller, S.; Lang, U. E.; Schmidt, Y.; Heinz, A. (2016): Comparison of Aggressive Behavior, Compulsory Medication and Absconding Behavior Between Open and Closed door Policy in an Acute Psychiatric Ward. In: Psychiatrische Praxis. DOI: 10.1055/s-0042-105181.
13	13	1	Clarke DE; Brown A; Griffith P (2010): The Brøset Violence Checklist: clinical utility in a secure psychiatric intensive care setting. In: J Psychiatr Ment Health Nurs 17 (7), S. 614–620. DOI: 10.1111/j.1365-2850.2010.01558.x.
14	14	1	Cummings, Kathleen S.; Grandfield, Sylvia A.; Coldwell, Craig M. (2010): Caring with comfort rooms. Reducing seclusion and restraint use in psychiatric facilities. In: Journal of psychosocial

Artikel-Nr.	Studien-Nr.	Sub-nummer	
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73	16	1	Donat, Dennis C. (2002a): Employing Behavioral Methods to Improve the Contaxt of Care in an Public Psychiatric Hospital: Reducing Hospital Reliance on Seclusion/Restraint and Psychotropic PRN Medication. In: Cognitive and Behavioral Practice 9, S. 28–37.
74	16	1	Donat, Dennis C. (2002b): Impact of improved staffing on seclusion/restraint reliance in a public psychiatric hospital. In: Psychiatric rehabilitation journal 25 (4), S. 413–416.
15	16	1	Donat, Dennis C. (2003): An analysis of successful efforts to reduce the use of seclusion and restraint at a public psychiatric hospital. In: Psychiatr Serv 54 (8), S. 1119–1123. DOI: 10.1176/appi.ps.54.8.1119.
17	17	1	D'Orio, Barbara M.; Purselle, David; Stevens, Debbie; Garlow, Steven J. (2004): Reduction of episodes of seclusion and restraint in a psychiatric emergency service. In: Psychiatr Serv 55 (5), S. 581–583. DOI: 10.1176/appi.ps.55.5.581.
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19	19	1	Fisher, W. A. (2003): Elements of successful restraint and seclusion reduction programs and their application in a large, urban, state psychiatric hospital. In: Journal of psychiatric practice 9 (1), S. 7–15.
20	20	1	Fluttert, F. A.; van Meijel, B.; Nijman, H.; Bjorkly, S.; Grypdonck, M. (2010): Preventing aggressive incidents and seclusions in forensic care by means of the 'Early Recognition Method'. In: Journal of clinical nursing 19 (11-12), S. 1529–1537. DOI: 10.1111/j.1365-2702.2009.02986.x.
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Artikel -Nr.	Studien-Nr.	Sub-nummer	
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23	23	1	Gonzalez-Torres, Miguel Angel; Fernandez-Rivas, Aranzazu; Bustamante, Sonia; Rico-Vilademoros, Fernando; Vivanco, Esther; Martinez, Karmele et al. (2014): Impact of the creation and implementation of a clinical management guideline for personality disorders in reducing use of mechanical restraints in a psychiatric inpatient unit. In: The primary care companion for CNS disorders 16 (6). DOI: 10.4088/PCC.14m01675.
24	24	1	Guzman-Parra, J.; Aguilera, Serrano C.; Garcia-Sanchez, J. A.; Pino-Benitez, I.; Alba-Vallejo, M.; Moreno-Kustner, B.; Mayoral-Cleries, F. (2016): Effectiveness of a Multimodal Intervention Program for Restraint Prevention in an Acute Spanish Psychiatric Ward. In: Journal of the American Psychiatric Nurses Association 22 (3), S. 233–241. DOI: 10.1177/1078390316644767.
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Evidenztabellen

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Studie	Abderhalden, C.; Needham, I.; Dassen, T.; Halfens, R.; Haug, H. J.; Fischer, J. E. (2008): Structured risk assessment and violence in acute psychiatric wards: randomised controlled trial. In: The British journal of psychiatry : the journal of mental science 193 (1), S. 44–50. DOI: 10.1192/bjp.bp.107.045534.
Institution	University of Bern, Center of Psychiatry Rheinau
Studientyp	Cluster randomised controlled trial plus preference arm
Kontrollgruppe ja/nein	yes
Komplex ja/nein	no
Interventionstyp	Early Interventions// Structured Risk Assessment, BVC
n Patienten	2364
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Risk Assessment with BVC-CH, scores from 7-9 mesaures from a list, scorres 10 or above interdisciplinary team meeting
Beschreibung Kontrolle	TAU
Beschreibung Patienten	acute psychiatric wards, psychiatric incl. Substance abuse, less personality disorders
Beschreibung Outcomevariablen	aggressive events (SOAS-R), coercive measures (dichotomous)
Beschreibung Ergebnisse	Coercive measures + 10 % in control condition, -27 % in intervention condition, - 60 % in preference group
Dauer Baseline/Intervention/Follo w-up	3 month baseline, 3 month intervention
Funding	Swiss National Science Foundation
Qualitätsbemerkung	no follow-up, no sample size calculation, just descriptice statistics, differences at basline, no masking, no reporting about interventions done if risk assessment socres high

Nummer	2
Studie	Ala-Aho, S.; Hakko, H.; Saarento, O. (2003): Reduction of involuntary seclusions in a psychiatric ward. In: Duodecim; laaketieteellinen aikakauskirja 119 (20), S. 1969–1975.
Institution	Oulu University Hospital
Studientyp	Pretest-posttest-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Incidents discussed in team meetings, crises peaks linked to weekend leaves were reduced, de-escalation methods, continuos observation and structured week schedules for suicidal patients, pair of responsible nurses, personal treatment plan for every patient, better interdisciplinary interaction
Beschreibung Patienten	closed semi-acute wards, most patients suffered from psychosis
Beschreibung Outcomevariablen	Number of seclusion (mechanical restraint) events, reported by reason, month, day, time
Beschreibung Ergebnisse	No. Of restraint events decreased from 1.0 % per treatment days in 1999 to 0.5 in 2000 and 0.4. in 2001.
Dauer Baseline/Intervention/Follow-up	2 years planning, 1 year team assessment, 2 further years complex intervention

Nummer	3
Studie	Ash, David; Suetani, Shuichi; Nair, Jayakrishnan; Halpin, Matthew (2015): Recovery-based services in a psychiatric intensive care unit - the consumer perspective. In: AUSTRALAS PSYCHIATRY 23 (5), S. 524–527. DOI: 10.1177/1039856215593397.
Institution	Central Adelaide Local Health Network
Studientyp	Pretest-posttest-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex, Recoverybased
n Patienten	725?? (admissions)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Recovery practices: meet and greet services, respectful communication, peer specialist, interdisciplinary team meetings, carer consultant, culturallysensitive care, collaborative care, sensory modulation, exercise facilities, group activities, safety-care plans, de-escalation strategies, debriefing, information about medicaiton, exit-interview
Beschreibung Patienten	PICU, patients who are a risk to theirselves or others, common diagnosis were schizophrenia, drug induced psychosis, mania
Beschreibung	Number of seclusion, admissions affected by seclusion, duration of

Outcomevariablen	seclusion events (average)
Beschreibung Ergebnisse	admssions affected by seclusion decreased from 28 % in 2011-2012 to 15 % in 2012-2013 (p < 0.001), number of seclusion decreased from 261 to 125,duration of seclusion ecents increased slightly from 4 to 4.2h
Dauer Baseline/Intervention/Follow-up	2 years during which the recovery-based interventions were introduced step by step
Funding	Not reported

Nummer	**4**
Studie	Belanger, S. (2001): The 'S&R challenge': reducing the use of seclusion and restraint in a state psychiatric hospital. In: Journal for healthcare quality : official publication of the National Association for Healthcare Quality 23 (1), S. 19–24.
Institution	Colorado Mental Health Institute at Pueblo
Studientyp	interrupted time series
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex, S&R Challenge
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Leadership, implementing quality improvement teams, Debriefing after S/R event, new Documentation form, Training, stricter definition (time-out = seclusion, even just sitting in a chiair in the dayhall),
Beschreibung Patienten	whole psychiatric hospital including adult, adolescent and forensic patients
Beschreibung Outcomevariablen	S/R hours per 1000 patient days, Number of S/R episodes, average length of S/R episodes, distribution of length of episodes
Beschreibung Ergebnisse	the number of S&R hours per 1000 patient days decreased by more than 90 % (ca. 325 -> 25), episodes fell from ca. 9 to ca. 4 per day, average length of S/R episodes declined from 17.6 to 3.5 hours, high number of short episodes (< 1 hour)in adolescent unit
Dauer Baseline/Intervention/Follow-up	9 month baseline, 9 month intervention
Funding	not reported
Qualitätsbemerkung	unsufficient reporting about patient population, no sufficient pause between baseline and intervention data collecting

Nummer	5
Studie	Bell, A.; Gallacher, N. (2016): Succeeding in Sustained Reduction in the use of Restraint using the Improvement Model. In: BMJ quality improvement reports 5 (1). DOI: 10.1136/bmjquality.u211050.w4430.

Institution	NHS Fife Scotland
Studientyp	interrupted time series
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex, PDSA Improvement model, staff patient feedback (after Scalan 2010, D'Orio et al 2007, Huckshorn 2014, Hellerstein 2007)
n Patienten	(593 occupied bed day per month)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	policy change, data use (changing existing incident report tool), implement debriefs, training, involvement, increase the use of seated restraint, improvements were implemented in four steps (PDSA-cycles)
Beschreibung Intervention II	Staff and patient feedback
Beschreibung Patienten	acute admission ward
Beschreibung Outcomevariablen	restraints per 1000 bed days
Beschreibung Ergebnisse	Baseline (including the 4 PDSA-cycles) 4.18 restraints per 1000 patient days, after implementing staff and patient feedback 1.97 (= ca. 50 % reduction)
Beschreibung sekundäre Ergebnisse	Baseline 22 % of restraint incidents resulted in a staff debrief, after implementing staff and patient feedback 60 %
Dauer Baseline/Intervention/Follow-up	before baseline 1 year (bad reporting), baseline with PDSA 1-4 24 months, after implementing feedback 12 months
Funding	Not reported
Qualitätsbemerkung	contamination due to the 4 PDSA bedore implementing staff and patient feedback, hiog variability pof S/R events, unsufficient reporting about patient population, no sufficient pause between baseline and intervention data collecting

Nummer	**6**
Studie	Blair, E. W.; Woolley, S.; Szarek, B. L.; Mucha, T. F.; Dutka, O.; Schwartz, H. I. et al. (2016): Reduction of Seclusion and Restraint in an Inpatient Psychiatric Setting: A Pilot Study. In: The Psychiatric quarterly. DOI: 10.1007/s11126-016-9428-0.
Institution	Institute of Living/Hartford Hospital, Burlingame Center for Psychaitric Research and Education/Instiute of Living
Studientyp	Pretest-posttest-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex, incl. Trauma-informed care
Untersuchungseinheit	episode of hospitalisation
n Patienten	11913?? (admissions, 3884 during baseline, 8029 duringintervention)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	routine use of BVC, education in crises intervention and trauma-

	informed care, increased frequency of physician reassessment of need for S/R, formal administratiev review of S/R events, environmental enhancements (e.g. comfort rooms to support sensory modulation)
Beschreibung Patienten	psychiatric inpatient service of a large urban hospital, including 4.9 % children < 12 y and 9.2 % adults > 66 y
Beschreibung Outcomevariablen	seclusion/restraint events per 100 admissions, duration of mean seclusion and restraint events
Beschreibung Ergebnisse	statistical significant reduction in seclusion events (9.2 -> 4.4/100 = 52 % reduction), not significant reduction of 6 % in restraint events, significant increase in seclusion (337.7 -> 516.2 min) and restraint (286.0-> 445.0 min) duration.
Beschreibung sekundäre Ergebnisse	Most common behavior in BVC associated with S/R irritability (96 %), boisterousness (78 %), verbal threats (63 %), confusion (50 %
Dauer Baseline/Intervention/Follow-up	baseline one year, intervention period 2 years
Funding	Research Committee of the facility
Qualitätsbemerkung	unsufficient reporting about patient population

Nummer	**7**
Studie	Murphy, Bennington-Davis (2005): Restraint and seclusion: The model for eliminating their use in healthcare.
Institution	Salem (OR) Hospital, Evolutions in Healthcare
Studientyp	interrupted time series
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	complex, engagement model
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Physical plant (new wallpaper was installed, comfortable and inviting common-room furniture replaced institutional pieces, warning or “no” signs were replaced with inspirational posters and pictures, comfort room was conceived), Staff deployment (Staff members were given incentives to be among patients rather than behind the counters of the nursing station or in offices, the unit paid for meals when staff members chose to eat alongside the patients, normalizing conversation during mealtimes was encouraged and adopted), Leadership and customer service (interactions among staff are as important and orchestrated as interactions between staff and patients), Language and vocabulary (Less stigmatizing, less judgmental alternatives replaced words and phrases like noncompliance, time-out, training, case management, denies, alleges, claims, and refuses), Rituals and traditions (organization became data-driven, financial and performance indicators were distributed to all staff, and the organization developed a shared

	vision), Community meeting for staff, physicians and patients together twice a day. Every episode of seclusion or restraint was treated as a system's issue. Staff notified the medical director and administrative director in the moment, any time, 24/7 who than apologized in person to the patient. Trauma-informed care (reduction of the revved-up autonomic nervous system, including tone of voice...), Admission process (decrease fear and anxiety, offer service rather than making demands, and put people at ease instead of increasing their need for defense), Physicians involved in the model, meetings and meals.
Beschreibung Intervention II	
Beschreibung Kontrolle	
Beschreibung Patienten	Salem Hospital is a nonprofit regional hospital with approximately 280 beds in operation. The psychiatry inpatient unit is housed in a free-standing building three blocks from the main hospital. Inpatient psychiatry is an acute adult and geriatric, locked, secure unit of 24 beds, with an average length of stay of eight days and a census that is nearly always at capacity. One-third of people admitted are experiencing their first psychiatric hospitalization. People are admitted acutely from emergency departments at Salem Hospital and other hospitals from around the state, med-surg floors, jail, therapist and physician offices, crisis centers, and directly from home or the streets. There are no exclusionary admitting criteria except for acute and active severe physical illness or acute intoxication requiring medical intervention. Primary diagnoses are schizophrenia or other psychosis and mood disorders. Of people admitted, 50 % have coexisting substance abuse conditions. Payers include Medicaid, Medicare, and private insurance, and some patients have no means of payment.
Beschreibung Outcomevariablen	Secluision events per year, annual hours of locked seclusion
Beschreibung Ergebnisse	Seclusion events fell from about 200 in 2000 to about 50 in 2001 8after implementation of Engagement Model), and further decreased to about 10 in 2002 and less than that in 2003 and 1 event in 2004 and 0 in 2005. Annual hours of locked seclusion fell form over 1400 in 2000 to about 250 in 2001, 36,9 in 2002, 2,25 in 2003 and 10 minutes in 2004.
Beschreibung sekundäre Ergebnisse	Employee injuries also decreased dramatically from over 60 in 2000 tp about 30 in 2001 and 2(?) in 2005. Cost of workers compensation claims were about 5000$ in 2001 and 2002 each and then fell to zero and remained zero.
Dauer Baseline/Intervention/Follow-up	6 years baseline for seclusion events, one year for annual hours, 5 years post-intervention
Funding	not reported

Nummer	8
Studie	Borckardt, J. J.; Madan, A.; Grubaugh, A. L.; Danielson, C. K.; Pelic, C. G.; Hardesty, S. J. et al. (2011): Systematic investigation of initiatives to reduce seclusion and restraint in a state psychiatric hospital. In: Psychiatric services (Washington, D.C.) 62 (5), S. 477–483. DOI: 10.1176/ps.62.5.pss6205_0477.
Institution	Medical University of South Carolina
Studientyp	interrupted time series, variable baseline design
Komplex ja/nein	yes
Interventionstyp	Complex, Engagement model
n Patienten	(89783 patient days)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	engagement model: 1. trauma informed care , 2. languages and rules, including a team for every unit reviewing and modifying rules 3. therapeutic environment, painting, furniture, decoration etc. 4. patient involvement in treatment planning; the different steps were implemented randomly in different order in the different units
Beschreibung Intervention II	parallel AIDET to improve patient satisfaction and staff-patient communication
Beschreibung Kontrolle	
Beschreibung Patienten	high-acuitly adult unit, geriatric unit, general adult unit, substance abuse unit, child and adolescent unit
Beschreibung Outcomevariablen	seclusion/restraint rate per patient day
Beschreibung Ergebnisse	A significant reduction of 82.3 % (p=.008) in the rate of seclusion and restraint was observed between the baseline phase (January 2005 through February 2006) and the follow-up, postintervention phase (April 2008 through June 2008). After control for illness severity and nonspecific effects associated with an observation-only phase, changes to the physical environment were uniquely associated with a significant reduction in rate of seclusion and restraint during the intervention rollout period.
Beschreibung sekundäre Ergebnisse	patient ratings of the quality of care questionnaire improved after the interventions "environment", "involvement in treatment planning", but noch in trauma sensitivity trauma-informed care intervention, language and rules)
Dauer Baseline/Intervention/Follow-up	basline 14 month, implementation phase13 months, follow up period 3 months
Funding	none

Nummer	9
Studie	Boumans, C. E.; Egger, J. I. M.; Hutschemaekers, G. J. M. (2016): Could you please reduce your seclusion rates? To structure patient care by the methodical work approach. In: Tijdschrift voor psychiatrie 58 (2), S. 140–144.
Institution	Center for Psychosis and Substance Use Disorder, Centre for Excellence for Neuro Science/Vincentvan Gogh Intitute/Venray
Studientyp	Clinical Controlled trial
Kontrollgruppe ja/nein	yes
Komplex ja/nein	yes
Interventionstyp	Treatment planning wirth the Methodical Work Approach
n Patienten	678 (134 intervention, 544 control)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Translation from problems into goals, search for means to reach the goals, treatment plan ist set up with interdisciplinary team to match nursing and treatment plans, patient and his family, implementation of plan, evaluation readjustment
Beschreibung Intervention II	normal nursing and treatment plans, multidisciplinary team sessions
Beschreibung Patienten	combination of pyschosis and substance abuse disorders, specialized intensive care for people with dangerous behaviour or non-response to treatment, almost all involuntarily, some had already been in forensic settings
Beschreibung Outcomevariablen	number of seclusion episodes per 1000 patient days, hours of seclusion per 1000 patient days, available from an electronic registration system, data available per quarter
Beschreibung Ergebnisse	the number of seclusion incidents per 1000 patient days decreased from 15 in the first quarter of the study period to three in the last quarter of the study period. The number of hours spent in seclusion by the patients of the experimental ward decreased from 934 hours/1000 patient days at the first measurement in 2008 to 62 hours/1000 patient days at the last measurement in 2010. On the control wards, the number of seclusion incidents per 1000 patient days was 11 during the first quarter of the study and 12 during the last quarter of the study. The first measurement in 2008 showed 398 hours spent in seclusion, whereas the last measurement in 2010 showed 356 hours spent in seclusion. There was a wide range, with 1016 hours spent in seclusion in the third quarter of 2009. The control wards showed no statistically-significant changes over time in the number of incidents or in the hours of seclusion. In contrast, the experimental ward differed statistically significantly from the control wards by a reduction in e number of seclusion incidents ($P < 0.01$) and a reduction in the number of seclusion hours ($P < 0.01$).
Dauer Baseline/Intervention/Follo	baseline 3 quaters, intervention 6 quarters

w-up	
Funding	not reported
Qualitätsbemerkung	no randomisation, no follow-up, no sample size calculation, no masking, nothing about individual treatment plans reported, construction of a artificial control group

Nummer	**10**
Studie	Bowers L; Brennan G; Flood C; Lipang M; Oladapo P (2006): Preliminary outcomes of a trial to reduce conflict and containment on acute psychiatric wards: City Nurses. In: J PSYCHIATR MENT HEALTH NURS 13 (2), S. 165–172. DOI: 10.1111/j.1365-2850.2006.00931.x.
Institution	St. Bartholomew School of Nursing and Midwifery, City University
Studientyp	Pretest-posttest-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Supervision/Carer Consultant, City Nurses
n Patienten	(284 shift reports at baseline, 1315 during the intervention, this represents a respond rate of 56 %)
Effekt ja/nein auf S/R	no
Beschreibung Intervention	City nurses work three days per week with the team on the wards, using the working model (Positive appreciation, emotional regulation, effective structure…) to reach low-conflict, low-containment and high-nursing standards
Beschreibung Patienten	acute psychiatric wards
Beschreibung Outcomevariablen	Patient–staff Conflict Checklist Shift Report (PCC-SR, This tick box checklist is completed at the end of each shift, and consists of 21 conflict behaviour items and 9 containment measures, for which definitions are provided.), Ward Atmosphere Scale (WAS), Attitude to Personality Disorder Questionnaire (APDQ), Maslach Burnout Inventory (MBI), Ward Structure Questionnaire (WSQ), Interaction–Observation Checklist (IOC)
Beschreibung Ergebnisse	At the level of main outcomes, conflict significantly decreased, but containment did not. The more detailed information on individual items shows that significant falls in aggression, absconding and self-harm were achieved. There was no significant alteration in medication-related conflict. The picture in relation to general rule breaking was more mixed, with refusal to get out of bed decreasing, but refusal to attend to personal hygiene increasing. With respect to containment measures, use of intermittent observation decreased. However, a new Trust policy released in 2003 discouraged the use of intermittent observation, therefore this fall cannot be credited to the intervention. Door locking increased during the intervention. Seclusion and restraint did not change significantly.

Beschreibung sekundäre Ergebnisse	There were no significant changes in the APDQ, MBI, MSQ and WSQ before and after the intervention. The WAS showed improvements in: the amount of support patientsgave to each other and staff gave to patients; the degree of autonomy and independence of patients in making their own decisions; how much patients were orientated towards leaving hospital; and how much patients were expected to be concerned with their personal problems and feelings. Interaction rates significantly altered before and after the intervention. Positive interaction between staff and patients increased from a mean rate of 0.065 to 0.139 per observation ($z=-3.19, P=0.001$), as did interactions rated as neutral (before=0.142, after=0.237, $z=-3.98, P < 0.001$).
Dauer Baseline/Intervention/Follow-up	3 month baseline, 1 year intervention
Funding	Square Smile Appeal and Henry Smith Charity
Qualitätsbemerkung	many scales, tests, nothing reported about adjustment for multiple testing, vague dscription

Nummer	11
Studie	Bowers L; Flood C; Brennan G; Allan T (2008): A replication study of the city nurse intervention: reducing conflict and containment on three acute psychiatric wards. In: J PSYCHIATR MENT HEALTH NURS 15 (9), S. 737–742. DOI: 10.1111/j.1365-2850.2008.01294.x.
Institution	St. Bartholomew School of Nursing and Midwifery, City University
Studientyp	Clinical Controlled trial
Kontrollgruppe ja/nein	yes
Komplex ja/nein	no
Interventionstyp	Supervision/Carer Consultant, City Nurses
n Patienten	?? (630 shift reports during baseline on experimental and 550 on control wards, 1444 during the intervention on experimental wards and 2692 on controls, this represents a respond rate of 58 %)
Effekt ja/nein auf S/R	no
Beschreibung Intervention	City nurses work three days per week with the team on the wards, using the working model (Positive appreciation, emotional regulation, effective structure…) to reach low-conflict, low-containment and high-nursing standards
Beschreibung Patienten	acute psychiatric wards
Beschreibung Outcomevariablen	Patient–staff Conflict Checklist Shift Report (PCC-SR, This tick box checklist is completed at the end of each shift, and consists of 21 conflict behaviour items and 9 containment measures, for which definitions are provided.), Ward Atmosphere Scale (WAS), Attitude to Personality Disorder Questionnaire (APDQ), Maslach Burnout Inventory (MBI), Ward Structure Questionnaire (WSQ), Interaction–Observation Checklist (IOC)
Beschreibung Ergebnisse	On the primary outcome measures of total conflict and total

	containment, no significant change occurred on the experimental or control wards. The majority of conflict and containment items were also unchanged.
Beschreibung sekundäre Ergebnisse	Conflict and containment events both fell significantly between during the intervention period, the former by 20 % and the latter by 18 %.
Dauer Baseline/Intervention/Follow-up	3 month baseline, 1 year intervention
Funding	Square Smile Appeal and Henry Smith Charity
Qualitätsbemerkung	many scales, tests, nothing reported about adjustment for multiple testing, vague dsecription

Nummer	12
Studie	Cibis, M. L.; Wackerhagen, C.; Muller, S.; Lang, U. E.; Schmidt, Y.; Heinz, A. (2016): Comparison of Aggressive Behavior, Compulsory Medication and Absconding Behavior Between Open and Closed door Policy in an Acute Psychiatric Ward. In: Psychiatrische Praxis. DOI: 10.1055/s-0042-105181.
Institution	Charité, UPK Basel
Studientyp	Pretest-posttest-design, retrospektiv
Kontrollgruppe ja/nein	nein
Komplex ja/nein	no
Interventionstyp	Türöffnung
n Patienten	980, davon 163 untergebracht
Effekt ja/nein auf S/R	no
Beschreibung Intervention	Türöffnung
Beschreibung Patienten	allgemeinpsychiatrische Patienten, u-a- mit Schizophrenie, affektiver Psychose, Sucht; > 50 % unfrewillig nach PsychKG oder BGB)
Beschreibung Outcomevariablen	Entweichung, Zwangsmedikation, aggressive Übergriffe, Fixierung, besondere Sicherheitsmaßnahmen nach §29a (Isolierung)
Beschreibung Ergebnisse	Keine signifikante Reduktion von S/R
Dauer Baseline/Intervention/Follow-up	basline: 8 Jahre (1995, 2002), Intevention 2 Jahre (2012, 2013)
Funding	keine Interessenskonflikte
Qualitätsbemerkung	Daten durch zweischenzeitliche Änderung des Stationskonzepts kontaminiert (bspw. Trennung Männer Frauen aufgehoben, baseline enthält nur Männer, Intervention gemischt), andere Änderungen innerhalb von fast 20 Jahren wahrscheinlich

Nummer	13
Studie	CLARKE DE; BROWN A; GRIFFITH P (2010): The Brøset Violence Checklist: clinical utility in a secure psychiatric intensive care setting. In: J PSYCHIATR MENT HEALTH NURS 17 (7), S. 614–620. DOI:

	10.1111/j.1365-2850.2010.01558.x.
Institution	University of Manitoba, Health Science Center Winnipeg
Studientyp	interrupted time-series
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Early Interventions// Structured Risk Assessment, BVC
N Patienten	48
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	BVC completed for each patient, each shift for the first 72h
Beschreibung Patienten	PICU (11 beds) of an acute psychiatric ward, PICU for most unstable and dangerous patients, 40/48 were involuntarily
Beschreibung Outcomevariablen	seclusion incidents (absolute count per month)
Beschreibung Ergebnisse	Using a modified case study approach, use of seclusion decreased dramatically for the duration of the 3-month trial. In the 2 months before the implementation of the BVC, there was an average of 30 episodes of seclusion per month. During the trial, the rate dropped to 12 per month, while after completion of the trial, the rate again increased, but only to 22 episodes per month.
Dauer Baseline/Intervention/Follow-up	baseline 2 months, intervention 3months, follow-up 2 months, for follow-ups after 1 and 5 years no data for S/R
Funding	Workers' Compensation Board of Manitoba
Qualitätsbemerkung	missing follow-up for seclusion an restraint data

Nummer	14
Studie	Cummings, Kathleen S.; Grandfield, Sylvia A.; Coldwell, Craig M. (2010): Caring with comfort rooms. Reducing seclusion and restraint use in psychiatric facilities. In: Journal of psychosocial nursing and mental health services 48 (6), S. 26–30. DOI: 10.3928/02793695-20100303-02.
Institution	New Hampshire Hospital, Concorde, New Hamphire/ Ediith Nourse Rogers Memorial´Veterans Hospital, Bedford, Massachusetts
Studientyp	Clinical Controlled trial
Kontrollgruppe ja/nein	yes
Komplex ja/nein	no
Interventionstyp	Sensory modulation// Comfort Rooms
Effekt ja/nein auf S/R	No (just after exclusion of high users)
Beschreibung Intervention	light blue painted room, photo wallpaper, light dimmer, multisensory reclining chair, television, DVD, CD, calming music, books, puzzles, weighted blankets, stress balls, magazines
Beschreibung Patienten	one unit in a big psychiatric hospital, in the hospital: adults, children, primary direct recieving facility, > 2000 involuntarily admitted people anually
Beschreibung	freqency, duration and variance of seclusion and restraint (measures

Outcomevariablen	not further specified)
Beschreibung Ergebnisse	ANOVA showed no significant changes, after excluding 11 high utilizers (2 % of admissions) accounting for 15 % of episodes, 14 % of seclusion hours and 56 % of restraint hours, SPC (statistical process control) showed decrease in frequency, duration, variation in S/R
Beschreibung sekundäre Ergebnisse	89 % of patients reported a reduction in distress, nobody an incresase in distress, 88 % of comfort room interventions diod noch progress to S/R
Dauer Baseline/Intervention/Follow-up	basline plus intervention 9 months??
Funding	None
Qualitätsbemerkung	Outcome measures not specified, length of baseline and intervention period not specified, nothing about absolute episodes/durations and their relative declines, no sufficient data

Nummer	16
Studie	Donat, D. C. (1998): Impact of a mandatory behavioral consultation on seclusion/restraint utilization in a psychiatric hospital. In: Journal of behavior therapy and experimental psychiatry 29 (1), S. 13–19.
Institution	Western State Hospital, University of Virginia/School of Medicine Charlottesville
Studientyp	interrupted time-series//pre-posttest design
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Behavioral therapy// Behavioral treatment plans
n Patienten	(inpatient census went from 319 - 245)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Patients who exceeded the monthly criteria (a.o. 6x 72h) receive a behavioral treatment plan from the Behavior Management Committee
Beschreibung Patienten	adult psychiatric inpatients with severe and persistene psychiatric impairment in a state hospital, unclear if it is a longterm care facility
Beschreibung Outcomevariablen	mean S/R use per person
Beschreibung Ergebnisse	The data were analyzed by ANOVA utilizing a withinsubjects design with repeated measures. This analysis revealed a significant effect for the before-after condition (seclusion/restraint utilization during the 6 months after approval of the treatment plan compared to seclusion/restraint use during the 6 months prior to approval of the plan), $F(52, 1)=11.03$, $p<0.01$. There was signiÞcantly less seclusionCrestraint utilization during the 6 months after approval of the plan. The analysis also revealed a signiÞcant interaction between the serial effect across months during the before period and the serial effect of months during the after period, $F(260, 5)=4.77$,

	p<0.01. The serial trend across the 6 months prior to approval of the plan was for increasing use of seclusionCrestraint. The serial trend across the 6 months after approval of the treatment plan was for decreasing seclusion/restraint use.
Dauer Baseline/Intervention/Follow-up	6 months baseline, 6 months after implementation of the intervention
Funding	Not reported
Qualitätsbemerkung	insufficient reporting about patient population, especially setting, LOS, setting

Nummer	17
Studie	D'Orio, Barbara M.; Purselle, David; Stevens, Debbie; Garlow, Steven J. (2004): Reduction of episodes of seclusion and restraint in a psychiatric emergency service. In: Psychiatric services (Washington, D.C.) 55 (5), S. 581–583. DOI: 10.1176/appi.ps.55.5.581.
Institution	Emory University, Grady Memorial Hospital Atlanta
Studientyp	Pretest-posttest-design, retrospective
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	complex, comprehensive plan for early identification and management of problem behaviors
n Patienten	(1327 patient contacts per month, 484 were admitted to the observation area)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	response team for behavioral emergencies, two-way radios on the wards, verbal de-escalation training, identification of prodromal behaviors with a rating scale and management with verbal de-escalation, medication, time-outs, increasing existing video surveillance
Beschreibung Patienten	Approximately 38 percent of psychiatric emergency service patients are admitted to the observation area. At any given time, there are seven to 22 patients in the observation unit. The most common diagnoses seen in psychiatric emergency services are substance use disorders (35 percent), psychotic disorders (25 percent), unipolar mood disorders (13 percent), bipolar disorders (11 percent), adjustment disorders (6 percent), and anxiety disorders (2 percent). The remaining 8 percent of the diagnoses each have an occurrence of less than 2 percent.
Beschreibung Outcomevariablen	Number of S/R episodes per month, compliance rate with performance improvement measures
Beschreibung Ergebnisse	The mean±SD for the number of episodes of seclusion and restraint per month was 65.2±9.4 before implementation and 38.1±12 after implementation (F=28.5, df=1, 16, p< .001), which represents a 39 percent reduction in the number of episodes of seclusion and

	restraint. New joint commission regulations instituted in January 2001 did not significantly alter the postintervention levels of seclusion and restraint. Implementation was associated with greater compliance with performance improvement measures for seclusion and restraint. (F=890.5, df=1, 16, p<.001).
Beschreibung sekundäre Ergebnisse	Before implementation, the mean monthly compliance rate was 96±.22 percent, and after implementation, it was 100±.23 percent
Dauer Baseline/Intervention/Follow-up	9 months baseline, 9 months after implementation of the intervention
Funding	Not reported

Nummer	18
Studie	Espinosa, L.; Harris, B.; Frank, J.; Armstrong-Muth, J.; Brous, E.; Moran, J.; Giorgi-Cipriano, J. (2015): Milieu improvement in psychiatry using evidence-based practices: the long and winding road of culture change. In: Archives of psychiatric nursing 29 (4), S. 202–207. DOI: 10.1016/j.apnu.2014.08.004.
Institution	New York-Presbyterian Hospital
Studientyp	time series
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex
n Patienten	(big hospital with 350 patients)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Interventions were multiple, including intensive multi-modal staff education based on the literature review and starting in orientation, introduction of comfort rooms, changes in debriefing practices, careful review of all seclusion and restraint episodes, introduction of integrative modalities (activities, nursing pressence, early identification and management, coomuinication, shared tea time), and careful review of all 1:1 observation and review of unit structure (vital signs later in the morning), reminders/posters on the ward.
Beschreibung Patienten	facility is treating children, adolescents and adults with a wide variety of psychiatric diagnoses on 15 separate inpatient units
Beschreibung Outcomevariablen	S/R incidents per year, patient and staff satisfaction on a 0-100 % Likert Scala
Beschreibung Ergebnisse	As themost restrictive intervention, restraints declined (from 282 in 2005 to 16 in 2014), and seclusion rates increased temporarily (from 28 in 2005 to 435 in 2006) and then began to decline (to 53 in 2014). Initially we found that only 50 % of the incidents were judged to have been unpreventable. Now, 6 years into the project, there are fewer than 5 % in which our reviewers felt that an alternative interventionmight have been successful.
Beschreibung sekundäre	Patient satisfaction and staff scores have improved.

Ergebnisse	
Dauer Baseline/Intervention/Follow-up	10 years reported, time of intervention not clear
Funding	Not reported
Qualitätsbemerkung	not reported when which interventions were implemented

Nummer	19
Studie	Fisher, W. A. (2003): Elements of successful restraint and seclusion reduction programs and their application in a large, urban, state psychiatric hospital. In: Journal of psychiatric practice 9 (1), S. 7–15.
Institution	Creedmoor Psychiatric Center
Studientyp	time series ??
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex, Especially shorter duration of physicians S&R order, new training pragrams, new dual debriefing process
n Patienten	(Creedmoor admits approximately 50 recipients per month.The hospital operates 19 wards with a typical census of 26 recipients per ward (fewer on its Secure Care ward).)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	the performance improvement workgroup administered an identical survey to both staff and recipients, new staff training curriculum (this curriculum put greater emphasis on increasing staff sensitivity to situations which may lead to violence and training staff in noncoercive measures of de-escalating potentially violent situations), 8-hour curriculum entitled “Creating A Respectful Environment”, use of two types of post-event discussions: 1. “post-event analysis” which takes place immediately after the application of restraint or seclusion and involves the staff members who participated in the intervention along with supervisory staff who review the concrete handling of the situation while it is still fresh in their minds, look at what might have been done differently to avoid restraint or seclusion, and make a short-term plan to avoid a repetition of the intervention. 2. “debriefing” that includes the recipient and his or her regular treatment team and involves a more detailed behavior analysis, from both the recipient’s and the team’s points of view, of the events leading up to the intervention and more long-range planning to avoid a repetition of the restraint or seclusion, data usage and Benchmarking, better treatment interventions (DBT, avoid psychopharmacologic complacency, aggressiv use of clozapine), reduction of physician's of S/R order duration from 4 to 2 and then 1 hour.
Beschreibung Patienten	Creedmoor’s inpatient division provides intermediate and extended psychiatric hospitalization to mentally ill individuals over 18 years of

	age who remain dangerous to others or actively or passively dangerous to self despite acute treatment (averaging 3–6 weeks in duration) in the psychiatric units of local general hospitals. Creedmoor also admits mentally ill individuals from the New York City jail system.
Beschreibung Outcomevariablen	S/R orders per 1000 recipient days, combined horus of S/R per 1000 recipient days
Beschreibung Ergebnisse	Creedmoor experienced a 67 % decline in its rate between 1999 and 2001 and went from being 46 % above the average state rate to 44 % below it. Since virtually 100 % of recipients were spending the full 4 hours in restraint or seclusion during 1999, the decrease in combined hours of restraint and seclusion per 1,000 recipient days between 1999 and 2001 was approximately 92 %.
Beschreibung sekundäre Ergebnisse	QUAL: Among the actions that substantial numbers (> 35 %) of both staff and recipients felt would have a positive impact were increased staff politeness, more explanations of staff actions, fewer rules, more individualized expectations for participation in treatment activities, and the availability of more concrete de-escalation strategies (e.g., taking a shower or a walk) as opposed to verbal interventions and medication. Both staff and recipients (> 90 %) endorsed the value of post-restraint debriefings in preventing repeat occurrences. A large majority of both staff and recipients (> 85 %) endorsed the value of having staff, as part of their training, hear presentations from recipients who had a history of being restrained. In addition, about half of staff and recipients endorsed the value of staff experiencing restraint or seclusion as part of their training.
Dauer Baseline/Intervention/Follow-up	3 years oberservation ??
Funding	Not reported
Qualitätsbemerkung	No clear baseline, different interventions implemented step by step, contamination from former intervention-steps, where do effects come from??

Nummer	20
Studie	Fluttert, F. A.; van Meijel, B.; Nijman, H.; Bjorkly, S.; Grypdonck, M. (2010): Preventing aggressive incidents and seclusions in forensic care by means of the 'Early Recognition Method'. In: Journal of clinical nursing 19 (11-12), S. 1529–1537. DOI: 10.1111/j.1365-2702.2009.02986.x.
Institution	Utrecht University/Department of Nursing Science, InHolland University, Radboud University, Ulleval University Hospital, Oslo
Studientyp	one-way case-crossover design
Interventionstyp	Early Interventions// Early Recognition Method (incl. collaborative care)

n Patienten	168
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	ERM was conducted in 4 phases: 1. information of the patient, 2. extended list of early signs of aggression set up by the patient and his nurse-staff mentor, 3. collborative monitoring the patient's behaviour and detecting early signs of loss of emotional equilibrium, 4. preventive actions are discussed with the patient and described in the early detection plan. When warning signs emerged, if possible, these actions were carried out to help the patient regain his self-control. ERM sessions between a patient and his staff mentor generally took approximately 30 minutes/week. The intervention was implemented as part of already existing weekly evaluations between patients and their mentors. All staff members working with patients on ERM-wards were trained (1-d-training) in applying this intervention
Beschreibung Kontrolle	TAU
Beschreibung Patienten	Of a total of 189 patients who were eligible to be included, 168 (88,9 %) actually were involved in the intervention and 21 (11,1 %) persistently refused to get involved. All of these 189 patients were males, involuntarily admitted and convicted of serious offences. The mean admission duration, as assessed in the middle of the 30 months study period, was 51 months (SD 35; range 3–176 months). main diagnosis: schizophrenia, anti-social PD, ASD, sexual deviation.
Beschreibung Outcomevariablen	the main outcome measures were the number of seclusions and the severity of incidents that led to these seclusions, as rated on the SOAS-R
Beschreibung Ergebnisse	For the involved patients ($n = 168$), a significant decrease in seclusions from 219 in TAU to 104 in ERM, [Chi-squared (1) = 22,82 $p < 0{,}001$] was found. The ERM observation period showed substantially lower aggression in comparison to the TAU period . To be more specific, the seclusion rate per patient per month decreased from a mean of 0,13 (SD 0,33, median = 0,000)–0,05 (SD 0,13, median = 0,000) ($z = -4{,}264$, $p < 0{,}001$, $r = -0{,}23$). The severity of the incidents, calculated by the incident-severity-index, decreased from 1,38 (SD 4,18, median = 0,000)–0,50 (SD 1,75, median = 0,000) ($z = -4{,}071$, $p < 0{,}001$, $r = -0{,}22$).
Beschreibung sekundäre Ergebnisse	Significant decreases in seclusions as well as severity of incidents were also found in the following patient subgroups: patients with schizophrenia patients with anti-social personality disorder and patients with substance abuse In patients ($n = 58$) who in TAU, at least had one incident with a SOAS-R-severity-score of 13 or higher a significant decrease in seclusions and a significant decrease of severity of incidents was also found. Patients convicted of sexual offences, on the other hand, did not show significant improve-ment after participation in the intervention. The intervention resulted in a small effect size for the total sample. A medium effect size was found

	for the subgroup of patients with substance abuse problems. This suggests that this last subgroup may have benefited most from the intervention. Finally, we found a negative correlation between the age of the patient and the decrease of the incident-severity-index.
Dauer Baseline/Intervention/Follow-up	baseline: 2396 patient-months in total, post-intervention: 1995 patient-months in total
Funding	Not reported

Nummer	21
Studie	Forster, P. L.; Cavness, C.; Phelps, M. A. (1999): Staff training decreases use of seclusion and restraint in an acute psychiatric hospital. In: Archives of psychiatric nursing 13 (5), S. 269–271.
Institution	San Francisco Country Community Mental Health Services, John George Psychiatry Pavillon, Gateway Psychiatric Services
Studientyp	pretest-posttest-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Staff training
n Patienten	(2000 admissions for inpatient treatment per year)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Management of Assaultive Behavior workgroup (multidisciplinary committee, recommend policy changes, leadership, developing a mandatory full-day-training), Training (3 goals: increase awareness of the factors leading to pathent agression, promote knowledge about less restrictive measures, increase safe staff reactions to violence; every staff member experienced 5-point restraint, administrative personal present during the training, explain goals especially staff members safety), weekly discussion itemsabout S/R during team meetings, hospital-wide publicity charting the ongoing process
Beschreibung Patienten	acute-psychiatric hospital: 4 locked wards, 1 emergency service, LOS decreased during he study period from 16 to 9,14
Beschreibung Outcomevariablen	number and duration of seclusion and restraint episodes, number of staff injurioes incurred during physical containment
Beschreibung Ergebnisse	The total annual rate of restraint decreased 13,8 % overall, from 2379eoisodes per 2560 admissions in 1995, to 2380 episodes per 3010 admissions in 1996. The average duration of seclusion or seclusion and restraint per episode was reduced 54,6 %, from 13,9 hours/episode in 1995 to 6,3 hours/episode in 1996. Staff injuries were reduced 18,8 % from 48 incidents in 1995 to 39 in 1996.
Dauer Baseline/Intervention/Follow-up	1 year baseline, 1 year post-intervention
Funding	Not reported
Qualitätsbemerkung	Contamination due to other changes (LOS decreases, admissions

	increase), all staff injuries should have been counted, not just those linked to containment

Nummer	22
Studie	Godfrey, Jenna L.; McGill, Amanda C.; Jones, Nicole Tuomi; Oxley, Stephen L.; Carr, Robyn M. (2014): Anatomy of a transformation: a systematic effort to reduce mechanical restraints at a state psychiatric hospital. In: PSYCHIATR SERV 65 (10), S. 1277–1280. DOI: 10.1176/appi.ps.201300247.
Institution	Central Regional Hospital, Butner, South Carolina
Studientyp	pretest-posttest-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	staff training and response team / policy change requires upper-management approval for S/R
n Patienten	2244
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Nonviolent Crises Intervention (NVCI) training program in deescalation techiniques, forming a response team to assist in crises situations
Beschreibung Intervention II	S/R requires upper-management approval
Beschreibung Patienten	acute adult unit and community transition unit
Beschreibung Outcomevariablen	patients put in S/R per patients on the unit that day, manual holds, PRN, assaults on staff or consumers
Beschreibung Ergebnisse	After implementing training and crises response teams R was redeuced in both units, after the additions policy change the number of R was again decreased on the admission ward, no decrease on the CTU because R were already eliminated, R decreased by 98 % on the AAU and by 100 % on the CTU, CTU had not used the intervention for 559 days. S and PNR decreased on AAU and increased in CTU, assaults and injuries were reduced in both units, manual holds stayed the same).
Dauer Baseline/Intervention/Follow-up	1 year baseline, 1 year after 1 intervention, 1 year after 2. intervention
Funding	No competing interests
Qualitätsbemerkung	Contamination of the 2. intervention by the first

Nummer	23
Studie	Gonzalez-Torres, Miguel Angel; Fernandez-Rivas, Aranzazu; Bustamante, Sonia; Rico-Vilademoros, Fernando; Vivanco, Esther; Martinez, Karmele et al. (2014): Impact of the creation and implementation of a clinical management guideline for personality disorders in reducing use of mechanical restraints in a psychiatric inpatient unit. In: The primary care companion for CNS disorders 16

	(6). DOI: 10.4088/PCC.14m01675.
Institution	University of the Basque-Country/Department of Neuroscience, Basurto University Hospital/Psychiatry Service, Granada University/Neuroscience Institute
Studientyp	Pretest-posttest-design, retrospective
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Specialized therapy for personality disorders// implementation of a guideline for the management of personality disorders
n Patienten	199 (87 baseline, 112 intervention=
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	treatment guideline focussing on cluster B disorders and follows a psychodynamic perspective, guideline was developed and implemented collaboratively with key staff, guideline focusses on treatment plans, interpersonal interaction, reduction of conflicts NOT coercive measures
Beschreibung Patienten	young inpatients with a clinical diagnosis of personality disorder, mostly cluster b/Bordeline, only a minority had a stable partner or were empleyed
Beschreibung Outcomevariablen	patients with restraint use, relative and absolute rist reduction
Beschreibung Ergebnisse	Restraint use was reduced from 38 of 87 patients with personality disorders (43.7 %) to 3 of 112 (2.7 %), for a relative risk of 0.06 (95 % CI, 0.02–0.19) and an absolute risk reduction of 41 % (95 % CI, 29.9 %–51.6 %). Restraint use in patients with other diagnoses was also reduced to a similar extent.
Beschreibung Nebenwirkungen	The risk of being discharged against medical advice increased after the intervention, with a relative risk of 1.84 (95 % CI, 0.96–3.51).
Dauer Baseline/Intervention/Follow-up	1 year baseline, 1 year post-intervention
Funding	No fundings or conflicts of interest reported.
Qualitätsbemerkung	No. Of S/R per patient and duration of S/R not reported

Nummer	24
Studie	Guzman-Parra, J.; Aguilera, Serrano C.; Garcia-Sanchez, J. A.; Pino-Benitez, I.; Alba-Vallejo, M.; Moreno-Kustner, B.; Mayoral-Cleries, F. (2016): Effectiveness of a Multimodal Intervention Program for Restraint Prevention in an Acute Spanish Psychiatric Ward. In: Journal of the American Psychiatric Nurses Association 22 (3), S. 233–241. DOI: 10.1177/1078390316644767.
Institution	University regional hospital of malaga/department of metal ealth, biomedical research institute of malaga
Studientyp	Pretest-posttest-design, retrospective
Kontrollgruppe ja/nein	no

Komplex ja/nein	yes
Interventionstyp	Complex, Six Core Strategies
n Patienten	(1575 admissions, 158 required mechanical restraint, 249 restrining episodes in 2 years)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	4/6 Cores strategies: 1. Leadership and organizational changes - developping discussion groups, analyze data, review and update of the coercive-measures-protocol, reduction of frequency and duration of seclusion beomes quality indicator; 2. registration and monitoring of risk patients, 3. Nursing staff Training: de-escalattion techniques and prevention (10 hours course, and weekly 1-hour-sessions), involvement of patients in the treatment program
Beschreibung Patienten	acute psychiatric ward
Beschreibung Outcomevariablen	probability of being restrainted, total number od restraint and mean number of monthly incidents per 1000 patient days, mean duration of each episode of restraint, resasons for restraint
Beschreibung Ergebnisse	The probability of mechanical restraint use in a hospital admission decresed (year 2013 vs. 2012; adjusted odds ratio = .578), the total percentage of restrained patients fell from 15.07 % to 9,74 %, the total number of restraint hours was reduced from 2514 in 2012 to 1559 in 2013. There was a significant difference between the mean number of monthly incidents per 1000 patient days in 2012 (18.54 +-8.78) and in 2013 (8.53 +- 7.00; P= 0.005). However the mean duration of each episode increased from 15.33 to 18.35 (p= 0.03).
Dauer Baseline/Intervention/Follow-up	1 year baseline, 1 year post-intervention
Funding	None

Nummer	25
Studie	Guzman-Parra, Jose; Garcia-Sanchez, Juan A.; Pino-Benitez, Isabel; Alba-Vallejo, Mercedes; Mayoral-Cleries, Fermin (2015): Effects of a Regulatory Protocol for Mechanical Restraint and Coercion in a Spanish Psychiatric Ward. In: Perspectives in psychiatric care 51 (4), S. 260–267. DOI: 10.1111/ppc.12090.
Institution	University regional hospital of malaga/department of metal ealth, biomedical research institute of malaga
Studientyp	Pretest-posttest-design, retrospective
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	institutional changes// Regulatory Protocol for Mechanical Restraint
Effekt ja/nein auf S/R	No??
Beschreibung Intervention	every episode ist registered centrally, indications for use are restricted, maximal duration 4hr, extension must be orderd by psychiatrist, nurse assessement every 15 minutes plus video

	monitoring instead of 30 minutes, medical assessment after 1 hour instead of 2 hours after beginning, staff received no training but written information
Beschreibung Patienten	acute psychiatric ward
Beschreibung Outcomevariablen	date and time of immobilization, reasons for restraint, patient cooperation, medication, staff involvement, time of suspending the measure, diagnosis
Beschreibung Ergebnisse	In 2005, 100 patients were restrained (accounting for 148 restraint episodes), and in 2012, a total of 82 patients were restrained (accounting for 164 restraint episodes).The percentage of patients restrained in 2005 was 18.2 %, compared to 15.1 % in 2012 ($\chi 2$ = 1.90, $p = .17$), with an odds ratio (OR) (2012 vs. 2005) of 0.80 (CI = 0.58–1.01; 95 %). The mean duration of each mechanical restraint episode decreased from 27.91 hr in 2005 to 15.33 hr in 2012 ($Z = -0.52$, $p < .01$), and the total number of restraint hours was also reduced from 4,131 to 2,514 in 2005 and 2012, respectively. The mean of restraint episodes per patient increased from1.5 to 2 episodes in 2012 ($Z = -2.10$, $p < .05$).
Beschreibung sekundäre Ergebnisse	In 2012, there was an increase in using medication together with mechanical restraint measures ($\chi 2 = 9.99$, $p < .01$).
Dauer Baseline/Intervention/Follow-up	1 year baseline, 1 year post-intervention (7 years later)
Funding	None

Nummer	26
Studie	Hamilton, Bridget; Love, Anna (2010): Reducing reliance on seclusion in acute psychiatry. In: Australian nursing journal (July 1993) 18 (3), S. 43.
Institution	St. Vincent's Mental Helath (SVMH)
Studientyp	time series?? Pre-post??
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	complex, local seclusion reduction plan
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	commission of a working group, one-day-training-program "Creating Safety", changing seclusion policies, piloting a Emergency Response Team amde up of senior clinicians and managers
Beschreibung Patienten	acute unit
Beschreibung Outcomevariablen	seclusion events
Beschreibung Ergebnisse	the rate of seclusion declined markedly over the course of the project, from 474 events in 2006 to 186 in 2008 and 200 in 2009
Dauer Baseline/Intervention/Follo	4 years observation?

w-up	
Funding	NHMRC NICS Fellowship
Qualitätsbemerkung	unsufficient reporting about patienst, admissions, development of S/R rates over time, e.g. in 2007

Nummer	27
Studie	Hellerstein, D. J.; Staub, A. B.; Lequesne, E. (2007): Decreasing the use of restraint and seclusion among psychiatric inpatients. In: Journal of psychiatric practice 13 (5), S. 308–317. DOI: 10.1097/01.pra.0000290669.10107.ba.
Institution	New York State Psychiatric Institute, Columbia University College of Physicians and Surgeons
Studientyp	pretest-posttest-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex
Untersuchungseinheit	
n Patienten	
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	duration of physicians S/R order declined from 4 to 2 hours, staff training, clinical director has to ecaluate all patienst with 2 or mor consecutive S/R episodes, relaxing off-unit privilegues, Coping Agreement Questionnaire is filled out from patient and nurse together
Beschreibung Patienten	patients suffering from schizophrenia, schizoaffective disorder, mood disorders, anxiety disorders, substantial abuse, eating disorders, two research and one general units
Beschreibung Outcomevariablen	number of individuals secluded, restrained per number of individuals admitted during reporting unit, number of hours al clients spent in S, R per number of inpatient hours in the reporting period, patient-related staff-injuriy, fights/assaults, elopments
Beschreibung Ergebnisse	The number of patients placed in restraints did not change (from 0.35 ± 0.6 to 0.32 ± 0.5 patients/month), although there was a numerical (but not statistically significant) decrease in the number of hours that patients were restrained (from 1.7 ± 1.2 to 1.0 ± 2.4 hours/month). However, all seclusion variables showed a dramatic and statistically significant decrease. After September 1, 2000, the number of patients secluded dropped from 3.1 ± 1.4 to 1.0 ± 1.1 patients/month and the number of hours in seclusion dropped from 41.6 ± 52 to 2.7 ± 4.5 hours/month.
Beschreibung Nebenwirkungen	Two of the three secondary outcomes—number of elopements per month and number of patient-related staff injuries per month—demonstrated significant decreases during the course of our follow-up . There was also a numerical (although not statistically significant) decrease in fights and assaults. Elopements averaged

	1.05 ± 1.2 per month in the 20 months prior to the proj- ect, 1.0 ± 0.95 per month in the first year following the implementation of the project, and then decreased to 0.58 ± 0.67, 0.43 ± 0.67, 0.0 ± 0, 0.0 ± 0, and 0.17 ± 0.39 per month in the following years after improved off-unit escort staffing.
Dauer Baseline/Intervention/Follow-up	20 months baseline, 67 months after starting interventions
Funding	not reported
Qualitätsbemerkung	interventions were introduced over time, no reporting about this, no clear interventions point, not reported in 1000 patient hours

Nummer	28
Studie	Hoch, Jeffrey S.; O'Reilly, Richard L.; Carscadden, Judith (2006): Relationship management therapy for patients with borderline personality disorder. In: Psychiatric services (Washington, D.C.) 57 (2), S. 179–181. DOI: 10.1176/appi.ps.57.2.179.
Institution	Center for Research on Inner City Health at St. Michael's Hospital in Toronto, Ontario, department of health policy, management and evaluation at the University of Toronto, Regional Mental Health Care in London, Ontario, Department of Psychiatry at the University of WEstern Ontario in London, Ontario
Studientyp	pretest-posttest-design, retrospective
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Specialized therapy for personality disorders// Relationship Management Therapy
n Patienten	27
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	With relationship management therapy, patients choose their own treatment, limited only by the availability of resources and by profession al standards of practice. A fundamental, and perhaps counterintuitive, aspect of this type of therapy is that a patient who requests hospitalization will be admitted if a bed is available. Patients are always admitted on a voluntary status, allowed to leave if they request discharge, and given full privileges throughout their hospital stay. The model requires that patients who engage in or threaten self-harm or aggressive behavior are discharged from the inpatient part of the program for 24 hours, S/R are not allowed.
Beschreibung Patienten	patients aged 18-64 years, meeting DSM-IV criteria for borderline personality disorder
Beschreibung Outcomevariablen	incidents of self-harm, hours of S, R, constant nursing observation
Beschreibung Ergebnisse	No differences were seen in the mean number of hours in

	seclusion (from 12±34 hours in the year before enrollment to 9±36 hours in the year during enrollment). Sizeable and statistically significant differences were seen in the mean annual number of hours in restraints (from 33±135 hours to 1±3 hours; p<.01 for Wilcoxon signed-rank test) and constant nursing observation (from 95±342 hours to 4±14 hours; p<.001 for Wilcoxon's signed-rank tests). Overall, self-harm incidents declined significantly, from 2±3 per year before enrollment in the relationship management therapy program to none during the time that patients were enrolled in this program (p<.001 for Wilcoxon's signed-rank tests).
Dauer Baseline/Intervention/Follow-up	at least 12 months baseline per patient, and 12 months for the intervention
Funding	Financial support from career scientist award from the ontario minitry of health and long term care
Qualitätsbemerkung	insufficient reporting over time??

Nummer	29
Studie	Jones, D. W. (1997): Pennsylvania hospital continues to reduce seclusion and restraints. In: Joint Commission perspectives. Joint Commission on Accreditation of Healthcare Organizations 17 (2), S. 17.
Institution	Haverford State Hospital in Harverford, Penn
Studientyp	pre-post-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Staff training
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	The staff development instructos (leadership?) on the treatment units are reinforcing our process by educatiom direct care staff in methods of effectively manageing critical situations/aggressive behaviors (cultural change?)
Beschreibung Patienten	seriously, persistently mentally ill inpatients, longterm care?
Beschreibung Outcomevariablen	S/R patients/incidents/Hours for 1000 inpatient days
Beschreibung Ergebnisse	secluded patients (per 1000 inpatient days, 1995 vs. 1996) 0.76 -> 0.2, seclusion incidents 1.24 -> 0.20, seclusion hours 1.92 -> 0.19, restrained patients 0,78-> 0.34, restraint incidents 1.64 -> 0.45, restraint hours 3.72 -> 1.44
Dauer Baseline/Intervention/Follow-up	2 consecutive years during changes that happened during many years
Funding	not reported
Qualitätsbemerkung	insufficient reporting about interventions and changes, anderes

	Versorgungssystem (eher wie Heim??)

Nummer	30
Studie	Jonikas, J. A.; Cook, J. A.; Rosen, C.; Laris, A.; Kim, J. B. (2004): A program to reduce use of physical restraint in psychiatric inpatient facilities. In: Psychiatric services (Washington, D.C.) 55 (7), S. 818–820. DOI: 10.1176/appi.ps.55.7.818.
Institution	Department of Psychiatry at the Universityof Illinois at Chicago, Center on Mental Health Services Research and Policy
Studientyp	pre-post-design
Komplex ja/nein	yes
Interventionstyp	Patient interviewing, staff training
n Patienten	1910 adult patients treated during this time
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	One component of the program involved interviewing patients (in the first 24 h after intake) to determine their stress triggers and personal crisis management strategies. So patients personal strategies can be used during hospitalization if these techniques are documented before agitation or anger occures. The second consisted of training staff members in crisis deescalation and nonviolent intervention.
Beschreibung Patienten	youths (not relelvant to the review), general psychiatric unit and research unit where people generally suffer from psychotic and mood disorders.
Beschreibung Outcomevariablen	The rate was defined as the total number of patienthours in restraints that quarter, divided by the number of patient-days (the daily patient census summed for all days of the quarter). This number was then multiplied by 24 and then by 1,000.
Beschreibung Ergebnisse	The general psychiatry unit experienced an 85 percent decrease in restraint rate one quarter after the training and a 99 percent decrease two quarters after the training. Once again the rate remained low during the final two quarters of the evaluation period. The clinical research unit experienced a 51 percent decrease in the restraint rate in the quarter after crisis management training and a 49 percent decrease in the quarter after nonviolent crisis intervention training. In the two quarters after both trainings had occurred, the rate declined by 98 percent and remained low (at zero) for the final two quarters.
Dauer Baseline/Intervention/Follow-up	4-5 quaters baseline, 1-2 quaters implementation of intervention, 4 quarters postintervention/follow up
Funding	This study was funded by the National Institute on Disability and Rehabilitation Research, U.S. Department of Education, and the Center for Mental Health Services, and by cooperative agreement H-133B-000700 from the Substance Abuse and

	Mental Health Services Administration.

Nummer	31
Studie	Jungfer, Hermann-Alexander; Schneeberger, Andres R.; Borgwardt, Stefan; Walter, Marc; Vogel, Marc; Gairing, Stefanie K. et al. (2014): Reduction of seclusion on a hospital-wide level: successful implementation of a less restrictive policy. In: Journal of psychiatric research 54, S. 94–99. DOI: 10.1016/j.jpsychires.2014.03.020.
Institution	Universitäre psychiatrische Klinik, Universitätsklinikum Hamburg-Eppendorf, Psychiatrie Dienste Graubünden
Studientyp	pre-post-design, 2 y longitudinal hospital wide obersevaional stdy
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Türöffnung
n Patienten	Phase 1: 573 cases (!) on closed wards, 674 cases on closed wards that were nely opend in hase 2, 99 on open wards. Phase 2: 926 for closed wards, 353 for newly opened wards, 193 for open wards.
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Opening 2 of 4 closed wards, This step was prepared through an extensive planning period and supported by strong, constant top-down leadership. In the two previously closed wards, which were permanently opened during the study period, no speci fi c changes concerning the therapeutic setting and/or personnel were implemented. However, in the whole hospital (open and closed wards) one-to-one care was increased in crisis situations, personnel was trained in deescalation strategies, psychotherapeutic approaches were implemented, and crisis management for suicidality and aggression was standardized.
Beschreibung Patienten	Psychiatric University Hospital with 6 generaö admissions wards, patients whose inpatient treatment was completed in Phase 1 or 2
Beschreibung Outcomevariablen	Change in patients subjected to seclusion and change in patients subjected to forced medication on a hospital-wide level was defined as main outcome criterion. Chi-square tests were performed to compare the percentage of seclusions and forced medications during the two analysis periods.
Beschreibung Ergebnisse	n a hospital-wide level, the percentage of patients with at least one seclusion during AP2 was significantly lower than during AP1(c2(1)=5.8;p=.016), while there was no significant change inforced medication (c2(1)=.08;p=.775).
Beschreibung sekundäre Ergebnisse	O a ward-type level, there were no significant changes regarding the percentage of patients with at least one seclusion on closed (AP1: 75 (13.1 %); AP2: 151 (16.3 %); c2(1)=2.9;p=.091) and open (AP1: 0 (0 %); AP2: 4 (2.1 %);c2(1)=2.1;p=.149) wards. For newly opened wards, the number of patients with at least one seclusion changed significantly from 110 (15.9 %) in AP1 to 1 (3 %) in AP2

	(c2(1)=59.8;p<.001). The number of forced medications increased significantly on closed wards (AP1: 17 (3.0 %); AP2: 50(5.4 %);c2(1)=4.9;p=.027) and decreased significantly on newly opened wards (AP1: 34 (4.9 %); AP2: 0 (0 %);c2(1)=17.9;p<.001).There were no significant changes regarding open wards (AP1:0 (0 %); AP2: 2 (1.0 %);c2(1)=1.0;p=.309).
Dauer Baseline/Intervention/Follow-up	1 year baseline, 1 year postintervention
Funding	none
Qualitätsbemerkung	contamination through the other programs, nothing reported on changed admission policies (patients not randomized)

Nummer	32
Studie	Keski-Valkama, A.; Sailas, E.; Eronen, M.; Am Koivisto; Lonnqvist, J.; Kaltiala-Heino, R. (2007): A 15-year national follow-up: legislation is not enough to reduce the use of seclusion and restraint. In: Social psychiatry and psychiatric epidemiology 42 (9), S. 747–752. DOI: 10.1007/s00127-007-0219-7.
Institution	Vanha Vaasa Hospital, National Research Center for Welfare and Health, Helsinki, Finland, Kellokoski Hospital, Tampere University, University of Helsinki…
Studientyp	repeated survey
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Legislative changes
Effekt ja/nein auf S/R	no
Beschreibung Intervention	Finland joined the European Convention of Human Rights in 1990 and implemented the fundamental rights in 1995. The restriction of patients' freedom and the use of coercion in psychiatry are regulated by the Finnish Mental Health Act. In relation to using coercion, the Finnish Mental Health Act has been revised three times during three decades so that it has become more specific each time. However, the Mental Health Acts in 1978 and in 1991 did not include explicit regulations about the seclusion and restraint practices. In practice, local instructions regulated the use of seclusion and restraint at the hospital level until the partly revised Mental Health Act went into effect in 2002. Since then, the Act has focused on regulating the use of coercive measures during inpatient care. The intent of the reform was to specify the reasons for limiting the fundamental rights of the involuntarily treated patient as wellas to clarify and standardise coercive practices.
Beschreibung Patienten	pateints from psychiatric hospitals in Finland
Beschreibung Outcomevariablen	Number of secluded patients, secluded patients of all psychiatric in-patients, number of restrained patients, restrained patients of all

	psychiatric in-patients
Beschreibung Ergebnisse	The total number of seclusion and restraint incidents during the study week was 263 in 1990, 242 in 1991, 217 in 1994, 161 in 1998 and 129 in 2004. The total number of all hospitalised patients and the total number of the secluded and restrained patients decreased, but the risk for being secluded did not changed during the study time when compared to the first study year. In the use of restraint, there was a slight decrease from index year 1990 to 1991, 1998 and 2004, but no linear trend was formed.
Beschreibung sekundäre Ergebnisse	The duration of the secluions events increased over time, the duration of restraint events did not change.
Dauer Baseline/Intervention/Follow-up	15 years observation period
Funding	not reported
Qualitätsbemerkung	different legislative changes put together, some of them very inconcrete, not specific for Psychiatry (e.g. human rights)

Nummer	33
Studie	Khadivi, Ali None; Patel, Raman C.; Atkinson, Angela R.; Levine, Jeffery M. (2004): Association between seclusion and restraint and patient-related violence. In: Psychiatric services (Washington, D.C.) 55 (11), S. 1311–1312. DOI: 10.1176/appi.ps.55.11.1311.
Institution	department of psychiatry at Bronx-Lebanon Hospital Center and with Albert Einstein College of Medicine
Studientyp	pre-post-design, retrospective
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	complex
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	The intervention was compatible with the mandates of JCAHO and included staff education, the addition of the history of inpatient violence to admission forms, continuous nursing monitoring to minimize the duration of episodes of seclusion and restraint, postepisode debriefing of the staff and the patient, and a review of each episode by the senior nurse and a physician. The intervention centered on early recognition of signs of agitation among patients and early clinical intervention.
Beschreibung Patienten	Patients in this hospital tend to be poor; are insured primarily through Medicaid or Medicare; tend to have severe and persistent mental illness, most often in the context of dual diagnosis; and are frequently admitted involuntarily.
Beschreibung Outcomevariablen	total number of episodes of S/R in the 12 months before and after the intervention examining the 2000 and 2001 central nursing books, episodes of violence against patients and staff and episodes of self-

	destructive behavior were determined from incident report files, other-directed violence was defined as any event in which there was unwanted physical contact with intent to harm
Beschreibung Ergebnisse	A significant decrease (52 percent reduction) was seen in the total number of episodes of seclusion and restraint from the 12 months before to the 12 months after the intervention ($\chi2=37.01$, df=2, $p<.001$).
Beschreibung Nebenwirkungen	The number of episodes of assaults on staff increased significantly, from 31 in the preintervention period to 83 in the postintervention period ($\chi2=31.9$ df=2, $p<.001$). The number of episodes of assaults on patients also increased significantly, from 67 in the preintervention period to 85 in the postintervention period ($\chi2=5.52$ df=2, $p<.05$).
Dauer Baseline/Intervention/Follow-up	1 year baseline, 1 year post-intervention
Funding	not reported
Qualitätsbemerkung	year 2000 seems to be baseline, 2001 post-intervention, unclear in which period this complex intervention was implemented

Nummer	34
Studie	Khazaal, Y.; Chatton, A.; Pasandin, N.; Zullino, D.; Preisig, M. (2009): Advance directives based on cognitive therapy: a way to overcome coercion related problems. In: Patient education and counseling 74 (1), S. 35–38. DOI: 10.1016/j.pec.2008.08.006.
Institution	Geneva University Hospitals; Department of Psychiatry/University Hospital Center and University of Lausanne
Studientyp	pre-post design
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Advance directives based on cognitive therapy
n Patienten	18
Effekt ja/nein auf S/R	no (not for seclusion but for hospitalization, ccompusaltory admissions, LOS)
Beschreibung Intervention	Specific therapeutic sessions (mean = 4 sessions; S.D. = 1.6; range of 2–8) were dedicated to help patients to prepare ADs. Cognitive therapy sessions based on a Socratic exploration of what is happening attempt to enhance the patients’ skill to write their ADs and to improve coping with their disorder. The intervention is divided into seven phases: (1) legal information about ADs, (2) exploration of cognitive representation of illness, (3) concerns about previous treatments including compulsory admission procedures (patients’ experiences with treatments, restraint and seclusion procedures. Explore the cases in which specific measures are considered acceptable or not by the patient), (4) elaboration of long-term prevention strategies, including the conception of how to cope

	with prodroms of mania or depression in the future, (5) establishment of the ADs, obligatory signed and pproved by the patient, (6) application of the ADs during the next crisis and (7) re-evaluation of the suitability of the ADs.
Beschreibung Patienten	12 suffering from bipolar disorder, 6 from schizophrenia, average age 40 year, 61 % women, time since first contact with psychiatric services 9 years (SD 5,2 years), 22.2 % active substance abuse dependence, 13 hospitalizations (SD 7.5), duration of hopitalizations 21.9 months (SD4.3) time since the first ADDs 29.2 months (SD 4.2), subjects have a past history of compulsatory addmissions (4.9, SD 3.4), During the year preceding ADBCT, all patients revealed non-adherence or irregular compliance to treatment. The following mood stabilizing or antipsychotic agents were prescribed prior to ADBCT: lithium (8), valproate (12), carbamazepine (1), lamotrigine (2), clozapine (3), olanzapine (6), quetiapine (4).
Beschreibung Outcomevariablen	(Hospitalizations, Compulsatory admissions), days spent in a locked room, (days spent in psychiatric hospital)
Beschreibung Ergebnisse	The number of hospitalizations and compulsory admissions, as well as the number of days spent in a psychiatric hospital decreased significantly after ADs, hereas the diminution of the number of days spent in a locked room was not statistically significant.
Dauer Baseline/Intervention/Follow-up	Number and duration of psychiatric hospitalizations for a mood or a psychotic episode as well as compulsory admissions and seclusion procedures were recorded for each patient 2 years before ADBCT and during a follow-up period of at least 24 months.
Funding	not reported

Nummer	35
Studie	Laker C; Gray R; Flach C (2010): Case study evaluating the impact of de-escalation and physical intervention training. In: J PSYCHIATR MENT HEALTH NURS 17 (3), S. 222–228. DOI: 10.1111/j.1365-2850.2009.01496.x.
Institution	Health Service & Population Research Department, Institute of Psychiatry, King's College/London; Faculty of Health, Nursing and Midwifery, University of East Anglia
Studientyp	pre-post design
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Staff training
n Patienten	195 patients (96 pre and 103 post training, 3 patients available in both periods) admitted to the PICU during this timeframe and 266 incidents by 86 different service users
Effekt ja/nein auf S/R	no
Beschreibung Intervention	physical intervention training about restraint but with emphasis on prevention and de-escalation

Beschreibung Patienten	PICU-patients, majority was male and from ethnical minorities, had schizophrenia, bipolar disorder or substance dependence, some were in hospital involuntarily
Beschreibung Outcomevariablen	incident rate ratio (IRR) pre and post training, severe IRR, IRR for RT and hands on
Beschreibung Ergebnisse	1. The pre- and post-training groups were similar by the characteristics analysed. 2. The incident rates after training were not significantly lower than before training (IRR = 0.986, 95 % CI = 0.75–1.29, P = 0.920). 3. The odds of a severe incident were not significantly lower after training than before training (Odds Ratio = 0.58, 95 % CI 0.32–1.03, P = 0.064). 4. Adjustment for demographics made no difference to the conclusions drawn and had little impact on the estimates.
Dauer Baseline/Intervention/Follow-up	6 months baseline, 6 months after training
Funding	not reported
Qualitätsbemerkung	seclusion events not mentioned

Nummer	36
Studie	Lewis M; Taylor K; Parks J (2009): Crisis prevention management: a program to reduce the use of seclusion and restraint in an inpatient mental health setting. In: ISSUES MENT HEALTH NURS 30 (3), S. 159–164. DOI: 10.1080/01612840802694171.
Institution	Department of Psychiatric Nursing/John Hopkins Hospital Baltimore
Studientyp	time series?, retrospective for 2004-6, prospective for 2007
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	complex, Crisis Prevention Management
n Patienten	(88 beds for psychiatric inpatients in a 900 bed hospital)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Structured risk assessment (Phipps Aggression Screening Tool), Personal Safety Plan (including early warning symptoms, specific actions to decrease stress), Daily Safety Focused Community Meeting, Family Style Meals Program, leisure activities, staff made a concerted effort to be in patient environment rather than in nurses' station, Milieu Rounds (staff meetings to discuss patients or safety issues), expansion of yearly staff education, use the least restrictive alternative, Patient Support Sheet (incl patient's target symptoms, effective interventions, instances when it will be imperative to report to nthe nurse) for one-to-one oberservators, Comfort Carts and Comfort Rooms, patient debriefing afterS/R
Beschreibung Patienten	Patients may have voluntary or involuntary status. A large percentage of the population served by the department has a comorbidAxis I substance abuse diagnosis. A significant number of

	patients, over 20 % in the clinic, selfreport a history of recent aggression including making threats or hitting someone in the hospital. Twenty percent have been secluded, restrained, or required constant observation during past hospitalizations.
Beschreibung Outcomevariablen	total hours of seclusion and restraint, seclusion and restraint per 1000 patient hours a year, repeated restraints/seclusion
Beschreibung Ergebnisse	Each unit experienced a decrease in the use of restraint ranging from 20–97 %. Three of the four units had a decrease in the use of seclusion ranging from 30–63 %. Seclusion and restraint per 1000 patient hours a year also decreased (at least at a hospital wide level).
Beschreibung Nebenwirkungen	There was one moderate injury, defined as requiring suturing, steristrips, fracture, or splinting, of both a staff member and a patient during an aggressive event between 2004 and 2006. There was an increase inminor injuries, requiring application of a dressing, ice, cleaning of a wound, limb elevation, or topical medication for staff. Focus groups addressing this issue felt that was due to improved reporting.
Dauer Baseline/Intervention/Follow-up	about2-3 years baseline and 1-2 years post intervention
Funding	not reported
Qualitätsbemerkung	insufficient reporting of outcome data, outcomes just shown in diagrams; program pilots implemented step by step, time lag of effects

Nummer	37
Studie	Lorenzo, R. D.; Miani, F.; Formicola, V.; Ferri, P. (2014): Clinical and organizational factors related to the reduction of mechanical restraint application in an acute ward: an 8-year retrospective analysis. In: Clinical practice and epidemiology in mental health : CP & EMH 10, S. 94–102. DOI: 10.2174/1745017901410010094.
Institution	Mental Health department SPDC-Modena Centro, NOCSAE
Studientyp	retrospective analysis, Fall-Kontroll-Studie?? time series??
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	institutional changes
n Patienten	305 (all restrained inpatients admitted from1-1-2005 to 31-12-2012 =560 cases, =1224 restraints)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	change of medical staff (2008), increase of nurses per shift and ward relocation in 2009, implementation of more restricted guidelines in 2011
Beschreibung Patienten	This retrospective study was conducted in the 15-bed public psychiatric ward, Servizio Psichiatrico di Diagnosi e Cura (SPDC) of Modena Centro, located in General Hospital (NOCSAE of Az-USL-

	Modena), where patients (catchment area of about 250,000 people) affected by acute psychiatric disorders are hospitalized in voluntary or compulsory treatment, as required by Italian Law 180. Majority of patients had schizophrenia/psychosis, organic psychosis or bipolar disorder.
Beschreibung Outcomevariablen	number of (Mechnical?) restraints
Beschreibung Ergebnisse	The number of restraints per year progressively declined during the 8-year period (Fig. 2). The reduction of restraints was statistically significantly related to all the institutional changes that occurred in the observation period: the change of medical staff in 2008 (Pearson chi2 = 157.0559, p<.001), the increase in nurses per shift and the ward relocation in 2009 (Pearson chi2 = 112.0902, p<.001) and the implementation of more restricted guidelines for restraint application in 2011 (Pearson chi2 = 157.0559, p<.001).
Dauer Baseline/Intervention/Follow-up	8 years observation period
Funding	none declared
Qualitätsbemerkung	retrospective, institutional changes are not described in detail

Nummer	38
Studie	Lykke, J.; Austin, S. F.; Morch, M. M. (2008): Cognitive milieu therapy and restraint within dual diagnosis populations. In: Ugeskrift for laeger 170 (5), S. 339–343.
Institution	Sct. Hans Hospital, Center for Kognitiv Terapi
Studientyp	tim-series
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Behavioral therapy// kognitive Milieutherapie
n Patienten	70
Effekt ja/nein auf S/R	yes (just for restraint, not for seclusion, forced medication)
Beschreibung Intervention	Kognitives milieutherapeutisches Programm mit Psychoedukation, sozialem Kompetenztraining, kognitiver Verhaltenstherapie, Debriefing mit Personal und in der Patientengruppe (Erkennen externer und interner Auslöser für Krisensituationen und erarbeiten von Alternativen)
Beschreibung Patienten	Patienten mit Doppeldiagnose (F20-F34) plus Substanzmissbrauch Sucht (F10-19), bei denen Erkrankung so schwer ausgeprägt ist, das aktuell stationäre Behandlung indiziert ist
Beschreibung Outcomevariablen	Anzahl der von S/R, Zwangsmed betroffenen Patienten, Anzahl von S/R, Zangsmedikationsereignissen, Anteil von stationären Patienten, die von Zwangs betroffen sind
Beschreibung Ergebnisse	Der Anteil der fixierten Patienten nahm über die Jahre signifikant ab: 2002 9,33 %, 2003 9,08 %, 2004 5,31 %, 2005 1,18 %. Jährliche Odds

	ratio 0,64,p > 0.0001. Keine signifikanten Änderungen ergaben sich beim Anteil der isolierten oder zwangsmedizierten Patienten.
Dauer Baseline/Intervention/Follo w-up	4 Jahre Beobachtungszeitraum
Funding	Not reported
Qualitätsbemerkung	sprachliche Schwierigkeiten meinerseits, da dänisch

Nummer	39
Studie	MacDonald, A. (1989): Reducing seclusion in a psychiatric hospital. In: Nursing times 85 (23), S. 58–59.
Institution	Royal Shrewsbury Hospital/Shelton
Studientyp	pre-post design, retrospective
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	changing ward's concept (long stay, locked -> short stay, intensive care, open), improving of staff's skills mix, introduction of a stringent seclusion policy, staff education in incident prevention strategies; phase 2: redecorating and refurnishing the ward, shifting control from doctors to nurses, a primary nursing concept (Bezugspflege??) was installed
Beschreibung Patienten	psychiatric ward (changing from a long-stay secure = locked to a short-stay intensive care = open ward)
Beschreibung Outcomevariablen	seclusion events per week
Beschreibung Ergebnisse	Seclusion went down from 22.3 seclusion events per week to 2 seclusion events per week in phase one, and continued to decrease to 0.6 events per week in phase 2
Funding	Not reported
Qualitätsbemerkung	the to phases aren't sprecified, whne did they occure? Contamination?, the concept of the ward changed, it's not clear if patient polpulation stayed the same

Nummer	40
Studie	Maguire, T.; Young, R.; Martin, T. (2012): Seclusion reduction in a forensic mental health setting. In: J PSYCHIATR MENT HEALTH NURS 19 (2), S. 97–106. DOI: 10.1111/j.1365-2850.2011.01753.x.
Institution	Victorian Institute for Forensic Mental Health
Studientyp	interrupted time series
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex, Six Core Strategies
n Patienten	(116 beds)

Effekt ja/nein auf S/R	yes
Beschreibung Intervention	6CS: Reduction of seclusion identified as a priority in Corporate Plan. Establishment of a project management structure that included consumer consultants, managers, clinicians and academics of all disciplines. A project officer was employed. The Seclusion Policy and Procedure was rewritten to reflect changes to practice. Staff training sessions introduced the project and the new initiatives, and during induction new recruits to the hospital were introduced to the organizational commitment to reduce seclusion. Existing management of aggression training was revised to incorporate learnings from the project and to strengthen the focus on early intervention and prevention of aggression, trauma-informed care and sensory modulation. Regular updates were provided to unit staff through newsletters, emails and team meetings. A consumer consultant was a member of the Project Management Group. Consumer consultants liaised with the Consumer Advisory Group representatives on each unit to collate personal experiences of seclusion practices. The unit community meetings were used to promote and discuss the Beacon Project and new initiatives. Patients were invited to inspect the seclusion suites with unit managers to suggest refurbishment ideas. Consumer consultants and Consumer Advisory Group were involved in development of the Safety Plan. Consumers delivered content in the staff training. Staff and patients collaborated to review the unwritten and arbitrary 'unit rules' that often are sources of conflict. Revision of the admission procedures to reflect a more therapeutic introduction to the hospital. On admission patients were no longer taken to the seclusion area to be searched – the search occurred during the required physical examination conducted by the doctor and nurse. Implementation of Safety Plans, a collaborative document completed by the patient with the staff that recorded stressors and triggers, warning signs, calming strategies, and communication and de-escalation strategies. Safety Plans focus on early intervention. Sensory approaches were introduced (aroma therapeutic sprays, massage chairs, weighted blankets and rocking chairs. Occupational therapists provided sensory assessments. Establishment of Sensory Modulation Rooms that were designed to promote emotional control and to facilitate the learning and practice of stress management. Introduction of Seclusion Plans for patients secluded for longer than 4 h. In addition to documenting the care to be delivered, the plan identified the conditions and interventions that were required to end seclusion – this allowed transparency for the patient and consistency for the clinical team. Introduction of the Structured Day to provide a coherent approach to the programmes and activities undertaken by patients and reduce boredom – a frequent contributor to aggression. Risk assessment for imminent patient aggression was strengthened

	through revision of the use of the Dynamic Assessment of Situation Aggression: Inpatient Version. Improved documentation of incidents with staff more clearly describing early intervention and prevention strategies, a justification for seclusion and plans for ongoing treatment of aggression. Reduction in number of seclusion rooms at the hospital – previously there were 15 seclusion rooms, perhaps reinforcing a complacent use of the rooms. Collected and distributed widely the seclusion data. Data were regularly sent to units to inform practice. Case file entries were audited to examine practice. Other data (admission patterns, staff injuries, sick leave) were also reviewed. Introduction of a seclusion review process in which a senior nurse met with the treating team to reflect on the seclusion episode and make recommendations for practice. Strengthening of the existing post-seclusion debriefing to be more than an opportunity to discuss ongoing treatment. The debriefing was to assist the patient to process the experience of seclusion.
Beschreibung Patienten	The patient population consists of male and female patients found not guilty by reason of mental impairment, sentenced and remanded prisoners, as well as patients referred from area mental health services that are deemed to be a risk to others. The most commonly identified risk for patients at TEH is interpersonal violence.
Beschreibung Outcomevariablen	seclusion events per month, patients secluded per month, total hours of seclusion oer month
Beschreibung Ergebnisse	At the conclusion of the project, there was a demonstrable reduction of seclusion events and the hours of seclusion but a lesser reduction in the number of patients that were secluded. Peaks in seclusion events or hours of seclusion generally indicate the admission of a persistently aggressive patient. Peaks in numbers of patients being secluded can often indicate the presence of patients whose aggressive behaviour influences others to also be aggressive for various motivations. The reduction in the use of seclusion is evident during the Beacon Project but appears to increase post the project, but not to the pre-Beacon levels. Seclusion reduction in a forensic setting.
Dauer Baseline/Intervention/Follow-up	2 years baseline, 2 years intervention, 1 year follow up
Funding	Commonwealth-funded National Mental Health Seclusion and Restraint Project

Nummer	41
Studie	McCue, R. E.; Urcuyo, L.; Lilu, Y.; Tobias, T.; Chambers, M. J. (2004): Reducing restraint use in a public psychiatric inpatient service. In: The journal of behavioral health services & research 31 (2), S. 217–224.

Institution	Woodhull Medical and Mental Health Center
Studientyp	pre-post-design, prospective
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	better identification of restraint-prone patients, a stress/anger management group for patients (4 sessions patient education!), staff training on crisis intervention, development of crises response team, daily review of all restraints, incentive system for staff
Beschreibung Patienten	psychiatric inpatients from a economically disadvantaged urban population
Beschreibung Outcomevariablen	number of restraints; patient-to-patient assaults; patient-to-staff-assaults; suicidal acts; self-inflicted injuries per 1000 patient-days
Beschreibung Ergebnisse	There was a significant decrease in the rate of restraint use after the restraint reduction initiatives were implemented.
Beschreibung Nebenwirkungen	No change in patient-to-patient-assualts or suicide attempts, decrease in self inflicted injuries, but significant increase in patient-to-staff-assults (but due to one peak)
Dauer Baseline/Intervention/Follow-up	3 years pre-intervention, 2 years post intervention
Funding	Not reported
Qualitätsbemerkung	when did the complex interventions occure? No pause between pre and post

Nummer	42
Studie	Needham, I.; Abderhalden, C.; Meer, R.; Dassen, T.; Haug, H. J.; Halfens, R. J.; Fischer, J. E. (2004): The effectiveness of two interventions in the management of patient violence in acute mental inpatient settings: report on a pilot study. In: Journal of psychiatric and mental health nursing 11 (5), S. 595–601. DOI: 10.1111/j.1365-2850.2004.00767.x.
Institution	School pf Nursing/Fribourg, University of Bern, Humboldt University Berlin
Studientyp	pre-post-design, prospective
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Early Interventions// Structured Risk assessment (BVC-R), training course
n Patienten	576 patients accounting for 721 admissions ans 7732 patient days(two 12-bed acute mental health care inpatient settings (one urban, one rural))
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	The risk prediction was conducted using an extended version of the

	Brøset Violence Checklist (BVC). The extended version – the BVC-R – requires nurses to rate six patient behaviours (confused, irritable, boisterous, verbally threatening, physically threatening and attacking objects) and to perform an overall assessment of the risk for imminent violence using a slide-rule-VAS. These combined ratings produce a score between 0 (very low risk) and 12 (high risk). All patients are consecutively assessed at admission and twice daily for the three following days. A natural frequency interpretation of the scoring results is provided comprising the following risk categories for a physical patient attack against staff: < 1 in 100 (score 0–3), 1 in 100 (score 4–6), 1 in 10 (score 7–9) and 1 in 4 patients (score 10–12). For patients obtaining scores above 7, a discussion on preventive measures used in general practice (e.g. observation, relaxation) was recommended, and for patients with scores of 10 or more, we suggested considering immediate measures after multidisciplinary discussion.
Beschreibung Intervention II	The nurses were trained in the aggression management training course. The 5-day course (35 lessons) is a skilloriented, action-centred, and problem-entred educational programme incorporating experiential- and knowledgebased elements such as the nature and prevalence of aggression, violence and sexual harassment, the use of aggression scales, preventive measures and strategies, de-escalation techniques, post-incident care and support, ethical aspects of violence management, and safety management. Another main element of the course is the acquisition of practical 'hands-on' skills such as holding methods, breakaway techniques, and control and restraint. The approach includes the use of a team of three persons with clearly assigned roles (similar to the unambiguous role definition in cardiac arrest resuscitation) when dealing with aggressive patients.
Beschreibung Patienten	41,3 % females, mean age 38, range 15-88 years, 61,5 % involuntarily, diagnosis: Schizophrenia, schizo-type and delusional disorders, mood disorders, mental and behavioral disorders due to psychoactive substance use, neruosis, personality disorders; LOS: 1-367 days (median 5, mean 11.3)
Beschreibung Outcomevariablen	aggressive events (SOAS-R), attacks against persons, coercive measures (with or without prior aggression)
Beschreibung Ergebnisse	The crude analysis including all patients and using hospitalization days as the unit of analysis showed no significant reduction in the incidence rate of aggressive events and attacks against persons from baseline over the introduction of risk prediction to training the staff . However, the rates of coercive measures per 100 hospitalization days significantly declined from 4.0, to 2.9, and to 2.3 over the three study periods ($\chi 2$-test P=0.0008, Mantel–Haenszel trend-test P=0.0002).
Beschreibung sekundäre	It should be noted, that the two participating wards showed

Ergebnisse	considerable differences as to the effects of the interventions. In one ward, we observed a ignificant decline in the percentage of days with occurrence of attacksagainst persons from 17.8 %, to 13.8 %, to 5.7 % (trend-test P=0.005), while the percentage of days with implementation of coercive measures remained similar (trend-test P=0.24). On the other ward, the days with occurrence of coercive measures declined (42.2 % to 28.7 %, trend-test P=0.03), while the percentage of days with attacks against persons remained unchanged (trend-test P=0.72). The severity of all aggressive incidents as assessed by the SOAS-R remained unchanged across the three study periods (mean score 9.8 vs. 10.1 vs. 10.5, P = 0.59). The SOAS-R score of those incidents identified as attacks against persons also remained unchanged (mean 12.9 vs. 13.2 vs. 11.8, P = 0.35). However, the subjective percep-tion of severity as indicated on the visual analogue scale significantly declined after the training (mean 42.3 vs. 41.5 vs. 27.8, χ2-test P = 0.005).
Dauer Baseline/Intervention/Follow-up	3 months baseline, 3 months post risk-assessment, 3 months post training (Both interventions implemented)
Funding	This study was supported by research grant BK 361/01 of the Swiss Academy of Medical Science.
Qualitätsbemerkung	units are not the same, different moderators in action?

Nummer	43
Studie	Noorthoorn, E. O.; Voskes, Y.; Janssen, W. A.; Mulder, C. L.; van de Sande, R.; Nijman, H. L. et al. (2016): Seclusion Reduction in Dutch Mental Health Care: Did Hospitals Meet Goals? In: Psychiatric services (Washington, D.C.), appips201500414. DOI: 10.1176/appi.ps.201500414.
Institution	Forensische Psychiatrie de Boog, Dutch Information Center for Coercive Measures, department of Medical Humanities, EMGO Institute for Health and Care Research/VU University Medical Center Amsterdam…
Studientyp	interrupted time series, pre post design?
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	political/legislative changes
n Patienten	316064
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	In 2006, GGZ Nederland (Dutch Association of Mentahl Health and Addiction Care) set a seclusiuon reduction target of 10 % per year.
Beschreibung Patienten	psychiatric inpatients
Beschreibung Outcomevariablen	seclusion incidents, patients secluded, patients secluded as percentage of those admitted, seclusion duration in hors (Mean, Median)

Beschreibung Ergebnisse	Both the seclusion rate (2008: 11.3 % -> 2013: 7 %) and the duration (median 2008: 92 hours -> 2013: 16 hours) of seclusion incidents decreased during this period. At the level of the individual hospital, absolute changes varied between a decrease of 93 % and an increase of 112 %. A greater than tenfolddifference was found betwen hospitals in the duration of seclusion incidents per admission duration. After 2011 93 % of all admitted patients were included in the register, allowing a more sound comparison, which showed a mean and median reduction in seclusion rates of 9 % and a reduction in mean and median duration of seclusion hours of 8 and 32 %. -> a significant decrease in seclusion incidents per 1000 admission hours
Beschreibung Nebenwirkungen	forced medication increased by 81 %, -> significant increase in forced medication incidents per 1000 admission hours, the total number of coercive measures increased significantly
Dauer Baseline/Intervention/Follow-up	6 years observation period
Funding	This study was supported by grants 5159 ans 5162 from the Dutch Minitry of Health, Welfare and Sports during 2013 and 2014. Between 2007 and 2012, the study was supported by several grants to each seperate hospital by the Durch Health Authority.
Qualitätsbemerkung	no complete reporting in the first years, selection bias?

Nummer	44
Studie	Novak, T.; Scanlan, J.; McCaul, D.; MacDonald, N.; Clarke, T. (2012): Pilot study of a sensory room in an acute inpatient psychiatric unit. In: Australasian psychiatry : bulletin of Royal Australian and New Zealand College of Psychiatrists 20 (5), S. 401–406. DOI: 10.1177/1039856212459585.
Institution	Missenden Psychiatric Unit, Mental Health Services, Sydney and South Western Sydney Local Health Districts, University of Sydney
Studientyp	pre-post-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	sensory room
n Patienten	75
Effekt ja/nein auf S/R	no
Beschreibung Intervention	An existing interview room was converted into a sensory room. The design followed best practice principles and included a homely environment with scenic pictures, comfortable furnishings and a range of sensory modulation items (weighted blanket, listen to music, read magazine/book, rocking chair, scents, fitball). Staff were educated about the room and encouraged to offer time in the room to consumers at the first sign of distress or agitation. Over 80 % of nursing and allied health staff and 40 % of medical staff attended

	these sessions. Consumers were also routinely educated about the room and encouraged to use it when they felt distressed or needed 'time-out.'
Beschreibung Patienten	40-bed acute-psychiatric unit in the inner city of Sydney. 82,7 % female, 12 % Under 20 years, 64,7 20-39 years, 13.3 % 40-59 years. Diagnosis: Schizophrenia/other psychoses, Manic episode or bipolar affective disorder, Depresiom. Borderline, 25.3 % diagnosis missiing!
Beschreibung Outcomevariablen	self rated dsitress, Behavior, Episodes of Seclusion, Aggression incidents
Beschreibung Ergebnisse	No changes were noted in the rates of seclusion or aggression
Beschreibung sekundäre Ergebnisse	Changes in self rated distress and some problem behaviours (pacing, loud, irritable, intrusive, elevated, anxious). No interaction effects for gender. There were between-subjects interaction effects for medication and diagnosis and within-subjects effects of self-rated distress.
Dauer Baseline/Intervention/Follow-up	12 months prior to and following intervention
Funding	no conflicts of interest, funding not reported??

Nummer	45
Studie	Ohlenschlaeger, Johan; Nordentoft, Merete; Thorup, Anne; Jeppesen, Pia; Petersen, Lone; Christensen, Torben O. et al. (2008): Effect of integrated treatment on the use of coercive measures in first-episode schizophrenia-spectrum disorder. A randomized clinical trial. In: International journal of law and psychiatry 31 (1), S. 72–76. DOI: 10.1016/j.ijlp.2007.11.003.
Institution	Sct. Hans Hospital, Bisbebjerg Hospital, Psychiatric Hospital Arhus
Studientyp	RCT
Kontrollgruppe ja/nein	yes
Komplex ja/nein	yes
Interventionstyp	integrated treatment
n Patienten	167 patients integrated treatment, 161 standard treatment
Effekt ja/nein auf S/R	no
Beschreibung Intervention	Integrated treatment consisted of assertive community treatment, psycho-educational multi-family groups, social skills training
Beschreibung Patienten	inpatients and outpatients with first-episode schizophrenia-spectrum disorder
Beschreibung Outcomevariablen	[number and duration of involuntary admission, detainment, involuntary treatment,] restraint with leather belt, straps and gloves, and number of psychical restraints/use of force, isolation (locked door), [involuntary medication with sedatives] (all measuers restriceted to use only during hospitalization)
Beschreibung Ergebnisse	No significant difference in mechanical or physical restraint between integrative and standard treatment, no statistics on seclusion applied

	due to small numbers
Beschreibung sekundäre Ergebnisse	other coercive measures also not significant
Dauer Baseline/Intervention/Follow-up	1 year
Funding	The OPUS-trial was funded by grants from The Danish Ministry of Health and The Danish Medical Research Council. The Copenhagen Hospital Corporatiom funded the first authour during the study period.
Qualitätsbemerkung	Secondary analysis of OPUS study??

Nummer	46
Studie	Olver, James; Love, Mervyn; Daniel, Jeffrey; Norman, Trevor; Nicholls, Daniel (2009): The impact of a changed environment on arousal levels of patients in a secure extended rehabilitation facility. In: Australasian psychiatry : bulletin of Royal Australian and New Zealand College of Psychiatrists 17 (3), S. 207–211. DOI: 10.1080/10398560902839473.
Institution	University of Melbourne, Mental Health Clinical Service Unit/Austin Health/Heidelberg/Australia
Studientyp	pre-post-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	changes of the physical ward environment
n Patienten	15
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	moving from a temporary, refurbished medical ward to a large, light-filled, purpose built facility
Beschreibung Patienten	the majority were male (80 %), had a diagnosis of schizophrenia (53 %) or schizoaffective disorder (13 %)
Beschreibung Outcomevariablen	seclusion episodes, extetended seclusion episodes, staff report of aggressive incidents and Brief Psychiatric Rating Scale
Beschreibung Ergebnisse	There were statistically significant reductions in the mean number of seclusion episodes, (24 -> 11,7; d= 3.6) mean number of extended episodes (> 4h; 11.3 -> 4; d= 4.4) and BPRS total score following the move. There were non statistically significant reduction in aggressive incidents reported by staff. There were statistically significant increases in ambient light conditions in the new unit.
Dauer Baseline/Intervention/Follow-up	3 months baseline, 3 months affter the move
Funding	Not reported
Qualitätsbemerkung	very few staff members participated

Nummer	47
Studie	Petrakis, M.; Penno, S.; Oxley, J.; Bloom, H.; Castle, D. (2012): Early psychosis treatment in an integrated model within an adult mental health service. In: European psychiatry : the journal of the Association of European Psychiatrists 27 (7), S. 483–488. DOI: 10.1016/j.eurpsy.2011.03.004.
Institution	St. Vincent's Mental Health Service (SVMHS), Monash University, University of Melbourne
Studientyp	comparison between a recent and a historic cohort
Komplex ja/nein	no
Interventionstyp	integrated treatment, Early Psychosis Program
n Patienten	62 (historic cohort) and 0 (recent cohort)
Effekt ja/nein auf S/R	no (not for seclusion)
Beschreibung Intervention	Early Psychosis Program: A clinical programme, utilising an integrated model of management of early psychosis clients, commenced in 2006 with dedicated consultant psychiatrist time and a project officer to carry out program establishment tasks. Over time the project officer position was replaced by a senior clinician, employed in the service to both hold a clinical load and act as a resource for secondary consult, monitoring and training of other case managers regarding work with EPP clients. Program implementation was further enhanced after the introduction of a specific early psychosis nurse in the inpatient unit setting, to support acute service staff in identification of early psychosis cases and assist in timely referral to community and completion of care pathway ocumentation. The consultant psychiatrist had active involvement in the development of the service-based Early Psychosis Clinical Guidelines to facilitate a clinical programme, and ensured the guidelines were updated according to current best practice. The consultant developed the clinical pathway tool in association with other staff to maintain high clinical standards within the programme, and was also involved in all modifications to the pathway tool. All case managers who saw early psychosis patients clinically reported to the early psychosis consultant, and clinically worked with the early psychosis consultant and/or early psychosis registrar. The consultant reviewed cases within programme as clinically required, and closely supervised the early psychosis registrar to provide care according to current best practice guidelines. Early engagement with the patient and family was identified as an important priority. Providing continuity, familiarity and support at an early stage throughout all settings in the health service would facilitate trust, reduce distress and trauma. A comprehensive physical examination and investigations were encouraged. This ensured appropriate review of any biological contributors to the presentation and comorbid conditions. Physical illness assessment was a focus and reinforced by other processes and protocols within the service which included physical health and metabolic monitoring. A previous study indicated that there was solid fidelity to Guidelines 2 years after the implementation of the integrated model of

	service delivery for an EPP within a metropolitan area mental health service.
Beschreibung Patienten	psychotic spectrum disorders, 55 %/57 % male, mean age 27/31 years, range 17 /18 - 62 Years, DUP 15/24 months
Beschreibung Outcomevariablen	[Duration of untreated psychosis,] admission to hospital (incl seclusion), [CTO, Family care onvolvement, discharge]
Beschreibung Ergebnisse	use of seclusion declined non significantly from 22 % to 15 %
Funding	no conflicts of interest, funding not reported??
Qualitätsbemerkung	willkürliche Auswahl Kohorten, Zeitraum 2006-2008 wird mit Zeitpunkt (2001) verglichen, starke Veränderungen der Diagnoseverteilung, der Versorgungslandschaft, unklar auf welche Grundgesamtheit sich die Isolierungszahlen beziehen.

Nummer	48
Studie	Phillips, D.; Rudestam, K. E. (1995): Effect of nonviolent self-defense training on male psychiatric staff members' aggression and fear. In: Psychiatric services (Washington, D.C.) 46 (2), S. 164–168. DOI: 10.1176/ps.46.2.164.
Institution	Fielding institute
Studientyp	CCT
Kontrollgruppe ja/nein	yes
Komplex ja/nein	no
Interventionstyp	staff training (nonviolent self-defense skills)
n Patienten	(24 self-selected male mental health staff)
Effekt ja/nein auf S/R	yes (for the group with both didactic and physical skills training)
Beschreibung Intervention	Training using didactic materials for 4h20 minutses over 2 sessions
Beschreibung Intervention II	didactic training and physical skills training for the same total time over 2 sesseions
Beschreibung Kontrolle	no training
Beschreibung Patienten	psychiatric state hospital
Beschreibung Outcomevariablen	Buss-Durkee Hostility-Guilt Inventory (Judges rated physical skills pre- and posttraining during a role play; and self-rated); number of assualts and episodes of restraint
Beschreibung Ergebnisse	Subjects in the group who received only didactic training meported that during the two-week penod they were involved in 18 assaultive encounters, resulting in ten episodes of restraint and three minor staff injuries. Subjects who received both didactic and physical training reported 1 3 assaults, resulting in five episodes of restraint and no injuries. The group who received no training reported 1 5 assaults, leading to eight episodes ofrestraint and one staff injury. Thus subjects trained in physical and didactic skills were involved in 2 3 percent fewer assaults than those who received only didactic training and 20 percent fewer assaults than the control group. They reported no injuries and 50 percent fewer episodes of restraint than the

	didactic group and 30 percent fewer than the control group.
Beschreibung sekundäre Ergebnisse	Judges rating showed significatn differemces between group 2 (didactic and physical skills training) and group1 and 3
Beschreibung Nebenwirkungen	self-rating was not different between groups
Dauer Baseline/Intervention/Follo w-up	2 weeks
Funding	not reported
Qualitätsbemerkung	insufficient reporting about patients, small sample, not test statistics about coercive measures

Nummer	49
Studie	Pollard, R.; Yanasak, E. V.; Rogers, S. A.; Tapp, A. (2007): Organizational and unit factors contributing to reduction in the use of seclusion and restraint procedures on an acute psychiatric inpatient unit. In: The Psychiatric quarterly 78 (1), S. 73–81. DOI: 10.1007/s11126-006-9028-5.
Institution	VA Puget Sound Health Care System/American Lake Division/Mental Health Serviec; department of Psychiatry and Behavioral Science/University o Washington
Studientyp	pre-post-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	political/legislative changes
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	The introduction of JCAHO 2000 standards for utilization of S/R occurred at month 28. This involved a series of formal and informal interventions implemented by the senior unit leadership and facility leadership, including discussions regarding alternatives to the use of S/R, exploration of staff concerns about the new standards through both informal discussion and focus groups, and positive feedback to staff from both senior unit management and facility leadership for the use of alternatives. Videotapes were also prepared, the intent of which was to serve as stimuli for discussions regarding risks of restraint, alternatives to restraint, and the senior leadership commitment to a restraint free environment. In addition, facility policies and procedures for the use of S/R were updated to reflect the emphasis on expanded leadership involvement in restraint and seclusion usage. As part of this, mental health and nursing leadership were tasked with the responsibility of reviewing all episodes of behavioral restraints for appropriateness and for meeting specified documentation requirements on an ongoing basis. In addition, the committee was tasked with identifying opportunities for improvement of care and patient safety. Aggregated and trended

	data were presented and discussed monthly at the facility clinical executive committee meeting.
Beschreibung Patienten	VA facility with a secured acute mental health unit that accepts voluntarily and involuntarily committed patients
Beschreibung Outcomevariablen	S/R hours per month, S/R hours per patient
Beschreibung Ergebnisse	T-test analysis revealed significantly fewer hours of restraint or seclusion in the months after the implementation of JCAHO standards compared to the months prior to this implementation, $t(44) = 4.59$, $P < .001$. Similarly, there was a significant reduction in the hours of S/R use per patient following the implementation of the new JCAHO policy, $t(44) = 4.02$, $P < .001$. Moreover, the difference in restraint or seclusion hours between the months prior to and after policy implementation remained significant even when changes in environmental variables were controlled using ANCOVA procedures, all $Fs\ (1,43) > 4.55$, $Ps < .05$.
Dauer Baseline/Intervention/Follo w-up	28 months baseline, 18 months post-intervention
Funding	Institutional support for this study was provided by the Mental Illness Research Education and Clinical Center (MIRECC) of the VA Puget Sound Health Care System, Tacoma and Seattle, WA.

Nummer	50
Studie	Prescott, David L.; Madden, Lynn M.; Dennis, Marilyn; Tisher, Paul; Wingate, Carrie (2007): Reducing mechanical restraints in acute psychiatric care settings using rapid response teams. In: The journal of behavioral health services & research 34 (1), S. 96–105. DOI: 10.1007/s11414-006-9036-0.
Institution	Acadia Hospital, APT Foundation Inc.
Studientyp	pre-post-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	debriefing// Rapid response teams (= debriefing with staff)
n Patienten	(3702 patient bed days baseline, 3479 patient bed days post-intervention)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Following any instance of mechanical restraint, a restraint response team was activated, consisting of (1) the medical director or assistant medical director, (2) the clinical supervisor, and (3) the nurse manager from the service where the restraint occurred. Within 24 h of the restraint episode, the restraint response team met with the receiving team, consisting of the restrained patient's attending physician, the charge nurse from the patient's program area, and the master's level clinician working with the patient. These consultations

	were specifically designed to be brief (15–20 min) and to address the question, "What can be done to reduce the likelihood that an additional restraint will occur with this patient?" No limitations were placed on potential treatment options or strategies. The response team physician had the option of writing medication orders or modifications to the treatment plan if he/she desired. As the response team was required to meet within 24 h of the restraint episode, a 7-day-a-week coverage was arranged. Members of the change team rotated a call schedule for staffing the response team on weekends and holidays. Senior-level managers had historically been present in the hospital, or available for consultation, during weekend hours and thus were involved 7 days/week. Patients were not directly involved in the team meetings. Meeting format typically involved a brief review of the restraint incident (led by the receiving team), development of hypotheses about the cause of behaviors that led to restraint (all team members), and identification of specific treatment changes that were hypothesized to reduce the likelihood of further restraints. The nurse or master's level clinician from the receiving team documented recommended changes in treatment on a one-page form developed specifically for this purpose.
Beschreibung Patienten	Acadia Hospital is a nonprofit psychiatric and chemical dependency treatment facility providing inpatient treatment, partial hospital and intensive outpatient programs, an outpatient clinic, and extensive substance abuse services (methadone clinic, wet shelter). Hospital services include 22 adult inpatient beds, 21 young adult inpatient beds, 18 adolescent inpatient beds, 18 inpatient pediatric beds, and a 14-bed observation service.
Beschreibung Outcomevariablen	total no. Of restraint, no. Of physical/mechanical restrints (per 1000 patient days), total patients receiving restraint, patients receiving phsyical/mechanical restraint
Beschreibung Ergebnisse	The total number of mechanical restraints declined to 36.4 %, from 77 during the baseline period to 49 during the first 6 weeks of using the restraint response team. The total number of patients who received a mechanical restraint declined to a lesser degree, by 12 % (25 during baseline; 21 during change phase). The number of physical restraints also decreased during the change period by 44.3 % (79 during baseline; 44 during the change period). The total number of patients who received a physical restraint declined to a lesser degree, by 21.4 % (28 during baseline; 22 during change phase). The number of mechanical restraints per thousand patient bed days during baseline was 20.8, and during the change period was 14.1, which is a 32.2 % reduction. The number of physical restraints during baseline was 21.3 per thousand patient bed days, declining to 12.6 during the change period—a 40.8 % reduction. Thus, the reduction in both types of restraints was still evident when restraints were examined in relation to total patient bed days. Although the

	overall rate of mechanical and physical restraints decreased during the 6-week intervention period, the number of patients receiving either a mechanical or physical restraint did not appear to significantly change.These findings seem predictable, given that the focus of the response teams was on patients who had already received at least one restraint episode, as opposed to reducing the likelihood of restraint for "high-risk" patients.
Dauer Baseline/Intervention/Follow-up	6 weeks baseline, (1 year extended baseline), 6 weeks post-intervention
Funding	not reported
Qualitätsbemerkung	short intervention, no follow up

Nummer	51
Studie	Putkonen, A.; Kuivalainen, S.; Louheranta, O.; Repo-Tiihonen, E.; Ryynanen, O. P.; Kautiainen, H.; Tiihonen, J. (2013): Cluster-randomized controlled trial of reducing seclusion and restraint in secured care of men with schizophrenia. In: Psychiatric services (Washington, D.C.) 64 (9), S. 850–855. DOI: 10.1176/appi.ps.201200393.
Institution	Department of Forensic Psychiatry/University of Eastern Finland (UEF), Niuvanniemi Hospital/Kuopio, Department of Clinical Neuroscience/Karolinska Institutet Stockholm…
Studientyp	Cluster-RCT
Kontrollgruppe ja/nein	yes
Komplex ja/nein	yes
Interventionstyp	Complex, Six Core Strategies
n Patienten	(During the intervention year, the two intervention wards accounted for 1,306–1,400 patientdays per month, with 50 beds (24 and 26 beds). The two control wards accounted for 930–1,003 patientdays per month, with 38 beds (17 and 21 beds))
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Between January and June 2009 the researchers assisted staff of the intervention wards to initiate the new practices, and they assisted again between July and December to maintain the intervention. The leaders of the intervention wards were supported with individual and group counseling (one hour per week) and in daily postevent analyses with the senior nurse or counselor (30 minutes per day). Staff critically reviewed problems, rules, and practices and received information on the risks and traumas associated with seclusion-restraint, the prevention of crises, and the new tools (one hour per week). The cultural anthropologist–psychotherapist-counselor used participation-observation methods to help the counseling processes and helped the wards to develop individual preventive strategies and alternatives to seclusion (one hour per week). The service users

	educated the project workers in consumer specialist meetings (one hour per week) about their own experiences with violence and coercion, individual triggers of violence, and effective calming activities. They also suggested new ways and practices to decrease fear, violence, and coercion and brainstormed with staff and doctors about the ward rules and practices during weekly community meetings (45 minutes). According to the patients' request for activities, some patients and staff volunteered to work together one hour per week on building projects in the courtyard. Because many patients and staff found it difficult to discuss their experiences of coercion and violence, they wrote, photographed, and illustrated a book together, titled Behind Locked Doors. Statistics on coercion and violence were used to guide the practices in many ways. Intervention wards used a progress sheet to record and track daily the number of seclusion/restraint incidents observed, and staff discussed the monthly figures with the senior nurse (30 minutes per month). The statistics were also discussed in the monthly steering group and at two general information meetings. Individual graphics of violence and seclusion were used in counseling and crisis planning. Crisis prevention tools were tailored with input from staff and patients to aid in individual crisis prevention, deescalation of tense situations, and coping with crises. The tools included a questionnaire of traumatic experiences and violent behavior and a list of common triggers, warning signs, calming activities, and daily activities. The individual crisis plan, which was an agreement on the calming activities to be used if the warning signs of violence appeared, was revised and developed after each crisis. Each morning the project senior nurse and cultural anthropologist–psychotherapist-counselor discussed with staff the violent incidents that occurred and reported on the practices, restrictions, and alternative methods used, according to the postevent analysis sheet. These meetings identified and praised successful interventions and otherwise helped the staff to improve their practices.
Beschreibung Kontrolle	TAU
Beschreibung Patienten	About 86 % of the inpatients were men, 97 % of whom had schizophrenia spectrum disorder or a delusional disorder. The patients having the highest risk for violence and seclusion were admitted to the highsecurity wards that had the highest staff-to-patient ratios. Practically all patients used second-generation antipsychotics—primarily clozapine— and many received antiepileptics and mood stabilizers as adjuvants.In the four high-security units, with the exception of a small number of Asians, the clients were Finnish-speaking Caucasians. The mean6SD age of the patients was 40.2610.6 in the intervention cluster and 38.4610.6 years in the control cluster.
Beschreibung	The monthly incidence rate ratios (IRRs) between the intervention

Outcomevariablen	and control wards during the stabilized intervention (between July and December 2009) consisted of the following three parameters, all divided into 100 patient-days: seclusion, restraints, or roomobservation days (the number of patient-days when any seclusionrestraint or room observation was used); seclusion-restraint time (the patient-hours spent in seclusion or restraint); and violence (the number of incidents of physical violence against any person, including selfharm). In addition, the number of injuries to patients and staff during the intervention year was compared with data for the previous year.
Beschreibung Ergebnisse	Seclusion-restraint and observation days decreased during the supported intervention from 30 % to 15 % of the total patient time for intervention wards (IRR over time=.88, CI=.86–.90, p,.001) versus a decrease from 25 % to 19 % for control wards (IRR=.97, CI=.93–1.01, p=.056). The difference between the groups was significant (p=.001), despite the significantly lower rate in December than in July for both intervention wards (IRR=.51, CI=.43–.60, p,.001) and control wards (IRR=.77, CI= .63–.94, p=.009). Seclusion-restraint time decreased from 110 to 56 hours per 100 patientdays for intervention wards (IRR over time=.85, CI=.78–.92, p,.001), yet increased from 133 to 150 hours for control wards (IRR=1.09, CI=.94–1.25, p=.24). The difference between the groups was significant (p=.001). The difference between July and December was significant for intervention wards (IRR=1.14, CI=1.05–1.23, p=.001) and for control wards (IRR=.77, CI= .63–.94, p,.001). Violence decreased for both groups, from 1.1 % to .4 % of patient-days for intervention wards (IRR over time=.92, CI=.79–1.05, p=.23) versus from .1 % to ,.01 % for the control wards (IRR=.90, CI=.64–1.23, p=.51).The difference between intervention and control wards was not statistically significant (p=.91). The severity of violence diminished in the intervention wards. Patient-to patient violence or self-harm resulted in a broken bone for one patient during the intervention year (versus one suicide and one restraint death before the intervention in 2008). For the control wards patient injuries remained minor, consisting of superficial wounds. The consequences of patient-to-staff violence remained minor for both groups and consisted of superficial wounds and bruises.
Beschreibung sekundäre Ergebnisse	Monthly seclusion-restraint time had increased before the project (2006– 2007) but declined during both project years. The IRR for annual seclusion-restraint time, compared with 2007, was .75 (CI=.73–.78) in 2008 and .49 (CI=.47–.51) in 2009. More reports of patient-to-staff violence were recorded at the entire hospital: 18 reports during the information year (2008) and 22 reports during the intervention year (2009), compared with 13 reports before the project (2007). However, patientassociated injuries to staff resulted in 75 % and 65 % fewer sick days, respectively, during the

	information and intervention years, compared with the year before the project (29 days in 2008 and 40 days in 2009, versus 114 days in 2007). The meand uration of a sick leave resulting from patients was 80 %282 % shorter during the project (1.6 days per injury for 2008 and 1.8 days per injury for 2009, versus 8.8 days per injury in 2007). The only patient-to-staff injury at the hospital occurred on a nonproject ward and resulted in a mild contusion. Surprisingly, monthly staff physical violence management training with colleagues resulted in a three- to fourfold higher number of sick days compared with sick days resulting from patient violence (89 sick days fromstaff training versus 29 days from patient-related incidents for 2008, and 165 sick days from colleaguerelated incidents versus 40 days from patient-related incidents for 2009). Compared with patient-to-staff injuries, these staff-to-staff injuries also resulted in longer sick leaves: mean 6.4 days per injury from colleagues versus 1.6 days per injury from patients for 2008 and 12.7 days per injury from colleagues versus 1.8 days per injury from patients in 2009.
Dauer Baseline/Intervention/Follow-up	6 months
Funding	This project was funded by the Finnish Ministry of Health through the developmental fund for Niuvanniemi Hospital. Dr. Tiihonen is a member of the straZeneca and Janssen-Cilag advisory boards. He also reports serving as a consultant for or receiving fees for expert opinions or lectures from AstraZeneca, Bristol-Myers Squibb, Eli Lilly, F. Hoffman–La Roche, GlaxoSmithKline, Janssen-Cilag, Lundbeck, Novartis, Organon, and Pfizer. The other authors report no competing interests.

Nummer	52
Studie	Richmond I; Trujillo D; Schmelzer J; Phillips S; Davis D (1996): Least restrictive alternatives: do they really work? In: J NURS CARE QUAL 11 (1), S. 29–37.
Institution	Veterans Administration Medical Center Fort Lyon, VA Western New York Health Care System Buffalo/New York
Studientyp	pre-post-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	staff training
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Staff training focussing on prevention and management of disturbed behavior, early assessment of disruptive behavior, interventions using least restrictive alternatives, and a team approach to using physical restraint if least restrictive alternatives are ineffective
Beschreibung Patienten	psychiatric inpatients and nursing home residents, including many

	veterans, having difficulty functioning in an unstructured environment and so requiring long term management
Beschreibung Outcomevariablen	seclusion and restraint hours in the psychiatric service per year
Beschreibung Ergebnisse	1991: 3388 restraint and 396 seclusion hours -> 1992: 1812 restraint and 788 seclusion hours. Total S/R hours declined by 31 percent, and restraint hours by 47 percent. But 2 of 3 wards showed an increase in seclusion only hours.
Beschreibung sekundäre Ergebnisse	during the 12 month study period 873 incidents of disruptive behavior occurred, 75 resulted in restraint, 25 in seclusion, 773 were mananged using least restrictive alternatives
Dauer Baseline/Intervention/Follow-up	1 year baseline, 1 year post-intervention
Funding	not reported

Nummer	53
Studie	Rohe, T.; Dresler, T.; Stuhlinger, M.; Weber, M.; Strittmatter, T.; Fallgatter, A. J. (2016): Architectural modernization of psychiatric hospitals influences the use of coercive measures. In: Der Nervenarzt. DOI: 10.1007/s00115-015-0054-0.
Institution	Klinik für Psychiatrie und Psychotherapie/Uni Tübingen
Studientyp	pre-post-design // interrupted time series??
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	changes of the physical ward environment
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Die früheren zehn Stationen im Altbau besaßen Zwei- bis Vierbettzimmer und umfassten für jeweils 16 bis 18 Patienten insgesamt eine Grundfläche von ca.200m2, mit nur zwei Duschen und Toiletten pro Station. Die neun Neubaustationen (je 17 Patienten, insgesamt ca. 400m2) bieten Ein-und Zweibettzimmer mit jeweils einer barrierefreien Nasszelle. Die Zimmer haben einen eigenen Bereich für jeden Patienten (mit Bett, Schrank und Schreibplatz) und sind suizidpräventiv eingerichtet (z.B. Sicherheitsglasscheiben, Metallspiegel und verdeckte Kabel).
Beschreibung Patienten	verschieden psychiatrische Patienten
Beschreibung Outcomevariablen	Anzahl der Fixierungen, Anzahl der Tage mit Fixierungen, Anzahl der fixierten Patienten, durschnischnittliche Dauer von Fixierungen
Beschreibung Ergebnisse	Vor dem Umzug im Jahre 2011 lag die Anzahl der Fixierungen mit durchschnittlich 7 % aller belegten Betten pro Monat sogar tendenziell niedriger als in anderen psychiatrischen Kliniken in Südwestdeutschland, in denen bis 2007 im Durchschnitt 9,5 % aller behandelten Patienten Zwangsmaßnahmen unterlagen. Nach dem Umzug reduzierte sich der monatliche, an der durchschnittlichen

	Bettenbelegung normierte Umfang der Zwangsmaßnahmen um 48–84 %. Die Anzahl der fixierten Patienten reduzierte sich um 50 % (0.069 -> 0.035; t37 = 5,968; p < 0,001; d = 1.96), die Anzahl der Tage mit Fixierung um 64 % (0.222 -> 0.081; t37 = 5,509; p < 0,001; d= 1,81), die durchschnittliche Dauer der Fixierungen um 52 % (2.015 -> 0.962; t37 = 3,195; p = 0,003; d= 1,05).
Beschreibung Nebenwirkungen	Der Einsatz von Zwangsmedikation reduzierte sich um 84 % (t37 = 6,669; p < 0,001). Auch die Anzahl fürsorglicher Zurückhaltungen reduzierte sich um 48 % (t37 = 3,491; p = 0,001). Der gleichzeitige Abfall der Zwangsmaßnahmen und -medikationen zeigt, dass die abnehmenden Fixierungen nicht durch zusätzliche Zwangsmedikationen kompensiert wurden.
Dauer Baseline/Intervention/Follo w-up	baseline 24 Quartale, post-intervention 15 Quartale
Funding	T.Rohe, T. Dresler, M. Stuhlinger, M. Weber und A. J. Fallgatter geben an, dass kein Interessenkonflikt besteht. T. Strittmatter ist ausführender Architekt des Klinikneubaus. Funding not reported
Qualitätsbemerkung	aggreggierte und geglättete Daten verwendet

Nummer	54
Studie	Schepelern, E. S.; Aggernaes, K. H.; Stender, A. K.; Raben, H. (1993): Use of restraints in a psychiatric department, Frederiksberg Hospital, before and after introduction of the new psychiatric law. Restraining devices. In: Ugeskrift for laeger 155 (50), S. 4091–4095.
Institution	Sct. Hans Hospital, Psychiatric Department/Frederiksberg Hospital
Studientyp	pre-post-design, prospektiv
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	political/legislative changes
n Patienten	145 restrained patients (167 admissions), 58 baseline, 87 nach Gesetzesänderung
Effekt ja/nein auf S/R	no
Beschreibung Intervention	New Danish law concerning commitment and compulsory procedures in psychiatry from 1.10.1989. Das Gesetz sichert die rechtliche Stellung psychisch kranker Patienten, regelt Fixierungen und versucht diese wo möglich zu reduzieren oder zu verhindern. Es regelt Indikation und Durchführung von Fixierungen, die Anwendung körperlicher Gewalt sowie die Einrichtung einer Sitzwache und eines Patientenfürsprechers.
Beschreibung Patienten	stationäre psychiatrische Patientne zwisch 15 und 90 Jahren, die Zwang erlitten habe, Männer und Frauen, Diagnosen: Schizophrenie, Manie, Depression, reaktive Psychose, prganische Psychose
Beschreibung Outcomevariablen	number and duration of restraints

Beschreibung Ergebnisse	Nochanges were registered in the number of restraints in connection with the law reform, but the duration of the fixations increased by 42 %.
Beschreibung sekundäre Ergebnisse	Thenumber of medications given forcibly in connection with the resrtaints increased significantly.
Dauer Baseline/Intervention/Follow-up	23 Monate vor und 24 Monate nach Gesetzesänderung
Funding	not reported

Nummer	55
Studie	Smith, S.; Jones, J. (2014): Use of a sensory room on an intensive care unit. In: Journal of psychosocial nursing and mental health services 52 (5), S. 22–30. DOI: 10.3928/02793695-20131126-06.
Institution	East London NHS Foundation Trust; City University
Studientyp	pre-post-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	sensory room
n Patienten	(15 bed PICU; 7 patients participated in the inteviews; 19 were secluded the 3 months prior to intervention, and 18 the 3 months after)
Effekt ja/nein auf S/R	no
Beschreibung Intervention	Sensory room, 2.5x5m, light blue painted walls, laminate flooring, window with black out roller blind, equipment: foor-mounted bubble tube, optic mat, a light/image emitting projector, two lying bean bags, two sitting bean backs, cushions, iPod, iPod dock, magazines, stress release toys, chewing gum, educational materials promoting relaxation and healthy living
Beschreibung Patienten	males only, PICU, locked doors, average length of stay 3-4 weeks, compulsory detained, usually in secure conditions, acutely disturbed phase of a serious mental disorder with a correspondending increase in risk
Beschreibung Outcomevariablen	seclusions, secluded patients, seclusions per secluded patient
Beschreibung Ergebnisse	The number of seclusion incidents was higher after the sensory room was introduced with 27 incidents of seclusionin the three months prior to the sensory room introduction and 37 incidents in the following 3 months. 18 patients secluded prior nach 19 patients secluded after. But more repeater incidents post. (25 repeater events in 6 patients post vs. 12 repeater events in 4 patients prior)
Dauer Baseline/Intervention/Follow-up	3 months baseline, 3 months post-intervention
Funding	Ms. Smith conducted this research as a Clinical Academic at City

	University London, a program funded by East London NHS Foundation Trust and part of the Joint Institute of Mental Health Nursing.
Qualitätsbemerkung	small sample

Nummer	56
Studie	Stead, Karen; Kumar, Saravana; Schultz, Timothy J.; Tiver, Sue; Pirone, Christy J.; Adams, Robert J.; Wareham, Conrad A. (2009): Teams communicating through STEPPS. In: The Medical journal of Australia 190 (11 Suppl), S128-32.
Institution	South Australian Department for Health; Center for Allied Health Evidence/University of South Australia; Australian Patient Safety Foundation; Cramond Clinic/Queen Elizabeth Hospital; Health Observatory/University of Adelaide; Lyell McEwin Hospital
Studientyp	pre-post-design // interrupted time series??
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	staff training? Communication through STEPPS
n Patienten	(five sites, including the mental health site)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Communication through STEPPS, ad hoc gatherings, structured team approach
Beschreibung Patienten	mental health patients???
Beschreibung Outcomevariablen	number of unique seclusion events per admission per month
Beschreibung Ergebnisse	Seclusion rates before implementation were significantly higher than after implementation.
Dauer Baseline/Intervention/Follow-up	26 months baseline, 12 months post intervention
Funding	US Department of Defense and the Agenyc for Healthcare Research and Quality permitted the useof TeamSTEPPS material and offered guidance during program implementation-
Qualitätsbemerkung	insufficient reporting abour patients (mental health, what's about the other sites, were also non-mental health patients secluded…), intervention (content of training)

Nummer	57
Studie	Steinert, Tilman; Zinkler, Martin; Elsasser-Gaissmaier, Hans-Peter; Starrach, Axel; Hoppstock, Sandra; Flammer, Erich (2015): Long-Term

	Tendencies in the Use of Seclusion and Restraint in Five Psychiatric Hospitals in Germany. In: Psychiatrische Praxis 42 (7), S. 377–383. DOI: 10.1055/s-0034-1370174.
Institution	ZfP Südwürttemberg/Weissenau und Schussenried, Klinik für Psychiatrie und Psychotherapie I/Uni Ulm; Psychiatrische Klinik der Kliniken Landkreis Heidenheim gGmbH, Klinik an der Lindenhöhe Offenburg, Bezirkskrankenhaus Kaufbeuren
Studientyp	Zeitreihe
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Benchmarking (und complexe interventionen)
n Patienten	138 580 BehandlungsFÄLLE
Effekt ja/nein auf S/R	Yes
Beschreibung Intervention	Benchmarking, Maßnahmen zur Reduktion von Zwangsmaßnahmen (klinikinterne LL, DGPPN-LL, Deseskalationstrainings, sonstige Schulungen, Hospitation in England/Festhaltetechniken/Physical restraint, strukturierte Risikovorhersage, 4-Stufen-Programm zur Deeskalation (Primat Festhalten vor Fixieren, Bezugspersonensystem, Stationsöffnung, Behandlungsvereinbarungen, klinikinterne Kriseninterventionsteams, Einführung einer verpflichtenden 1:1 Überwachung, erhöhte Anforderungen an die Dokumentation, Verkürzung der Überprüfungsintervalle, technische Alternativen in der Gerontoüsychiatrie (geteilte Bettgitter, Klingelmatte, Niedrigbett, Hüftprotektoren), Bewegungstraining in der Gerontopsychiatrie, Vermittlung durch Patientenfürsprecher und Beschwerdestellen, spezialisierte Stationskonzepte, geeignete Architektur, Leadership
Beschreibung Patienten	psychiatrische Patienten F0-F4, F6
Beschreibung Outcomevariablen	Anteil von Zwangsmaßnahmen betroffener Fälle an allen Behandlungsfällen in %, durchschnittliche Dauer einer freiheitsbeschärnkenden Maßnahme in Stunden, kumulative Dauer alles Zwangsmaßnahmen pro Fall in Stunden
Beschreibung Ergebnisse	Insgesamt reduzierte sich der Anteil der Betroffenen innerhalb von 8 Jahren von 8,2 % 2004 auf 6,2 % 2012. Bei einer Steigung der Regressionsgeraden von –0,2 ergab sich also ein Rückgang von durchschnittlich 0,2 Prozentpunkten pro Jahr. Die Reduktion betraf in erster Linie die Diagnosegruppe F0, während sich in den anderen Diagnosegruppen keine eindeutigen Tendenzen zeigten. Auch von 2011 nach 2012 zeigte sich keine auffällige Änderung außer einem Anstieg in der Diagnosegruppe F1 auf den höchsten bis dahin festgestellten Wert. Die Standardabweichung zwischen den Kliniken reduzierte sich stetig mit einem Koeffizienten von 0,34 /Jahr. Bei der durchschnittlichen Dauer einer Maßnahme ist kein eindeutiger Trend über die Jahre erkennbar. Zwischen 2011 und 2012 war eine Verkürzung der durchschnittlichen Dauer einer Maßnahme von 10,2

	auf 7,8 Stunden feststellbar, d. h. um 23,5 %. Dies betraf weitgehend alle Diagnosegruppen gleichermaßen. Bei der durchschnittlichen kumulativen Dauer der Maßnahmen pro betroffenen Fall über alle Diagnosen hinweg sind dabei eine eindeutigen Tendenzen festzustellen. Der Koeffizient der Regressionsgeraden ergibt einen Rückgang von 0,6 Stunden/Jahr pro betroffenen Fall. Die Tendenzen in den einzelnen Diagnosegruppen sind unterschiedlich. Bei den organischen psychischen Störungen ist eine Tendenz zur Abnahme zu erkennen, bei den übrigen Diagnosegruppen fand sich kein einheitlicher Trend. Zwischen 2011 und 2012 zeigte sich bei der Diagnosegruppe F3, aber auch bei F0 und F1, ein deutlicher Anstieg, während es bei F2 zu einer leichten Abnahme kam. Zunahmen waren auch bei den Diagnosegruppen F4 und F6 zu beobachten, wo die Zahlen allerdings stark schwanken. Bezogen auf die Gesamtzahl aller Behandlungsfälle (kumulierte Dauer der Maßnahmen pro Fall x Anteil der Betroffenen) ergab sich die größte Abnahme von 2010 auf 2011 (von 3,06 Stunden pro Behandlungsfall auf 2,48 Stunden), gefolgt von einem nahezu vergleichbar großen Anstieg 2012 (auf 2,95 Stunden pro Behandlungsfall).
Dauer Baseline/Intervention/Follow-up	Beobachtungszeitraum 9 Jahre
Funding	keine Interessenskonflikte
Qualitätsbemerkung	unklar, welche Kliniken welche Interventionen durchführen, welche Interventionen was bringen, was allein auf Benchmarking (Hawthorneffekt) zurückzuführen ist.

Nummer	58
Studie	Sullivan, Ann M.; Bezmen, Janet; Barron, Charles T.; Rivera, James; Curley-Casey, Linda; Marino, Dominic (2005): Reducing restraints: alternatives to restraints on an inpatient psychiatric service--utilizing safe and effective methods to evaluate and treat the violent patient. In: The Psychiatric quarterly 76 (1), S. 51–65.
Institution	Gold Coast Hospital/Spouthport/Queensland, Reserach Center for Clinical Practice Innovation/Griffith University, Department of Occupational Therapy/University of Queensland
Studientyp	pre-post-design, retrospective
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	patient-focused care (= staff rotation and risk assessment and staff training)
n Patienten	330 pre, 310 post intervention (48 secluded pre, 31 post intervention)
Effekt ja/nein auf S/R	yes (just duration decreased)
Beschreibung Intervention	In June of 2001 nursing began using a violence assessment tool

	created to look at three specific areas. Part one of the tool detailed pertinent history and precipitants to violence such as past violence history, access to weapons, history of abuse, cognitive and physical deficits ranging from head trauma to limited intellectual functioning, and violence precipitating situations (Figure 1). In part two, the clinician defined with the patient those behaviors, which were the patient's way of manifesting agitation, aggression or violence either verbal and physical. Staff discussed specific details as to how the patient expressed his or her anger and aggression and noted for example postural movements: large movements through the torso may pose a greater threat to the staff and other patients, while those that are gestural or contained within one small body part and do not move through the torso, may pose less of a threat. In part three, the patient was then given options for interventions that he or she might find helpful when faced with a potential loss of control. Choices were made from a realistic menu that included many options such as: physical (exercise, walking, deep breathing); cognitive (reading, painting, watch TV); social (talking with friend or staff, being alone); environmental (decreasing stimulation, listening to music); spiritual (prayers, meditation, yoga). The tool did rate potential for violence as low, medium or high, but was primarily utilized as a guide for how to approach each patient in a unique way to meet his or her needs. A primary goal of the tool was to help nurses establish conversations with patients around this genuinely difficult topic for both patients and staff. When nursing staff supported patients in discussing their expressed feelings of violence and worked with them to choose realistic options of dealing with those feelings, they began to develop an effective partnership necessary to learning new behaviors. This information was then shared with the treatment team, and the plan of care reflected patient choices. In addition staff were trained in new methods of working with patients who became agitated or threatened violence. This training included several formal courses: 8-hour Crisis Intervention Course, an Alternatives to Restraint and Seclusion Course, and training in Cultural Diversity. Units regularly monitored their incidents and rates of seclusion and restraints, and on some units it became a measure of treatment success and staff pride that restraint and seclusion use was minimal. Whenever seclusion or restraint were utilized, these events were carefully reviewed by staff and patients to determine what might have been done differently.
Beschreibung Patienten	acute psychiatric unit, 8 bed lcoked unit within a large regional hospital, 78 % male, age in average 32 years, diagnosis: schizophrenia, substance related disorders, bipoar disorder (manic pahse), depressive disorder, personality disorder, delirium/dementia/dognitive disorder, anxiety and dissociative disorder, LOS in average 13.5 days, 8 days in acute care area

Beschreibung Outcomevariablen	number of times in seclusion (median), length of time secluded (median hours)
Beschreibung Ergebnisse	no difference in number of seclusion (median pre and post 1.0), but length of time secluded decreased from 5.5 hours (median) to 3.5 hours (median)
Beschreibung sekundäre Ergebnisse	pre intervention more haloperidol was given
Dauer Baseline/Intervention/Follow-up	6 months baseline, 6 months post-intervention
Funding	conflict of interest: none

Nummer	59
Studie	Sullivan D; Wallis M; Lloyd C (2004): Effects of patient-focused care on seclusion in a psychiatric intensive care unit…including commentary by Holmes D and Perron A. In: International Journal of Therapy & Rehabilitation 11 (11), S. 503–508.
Institution	Elmhurst Hospital Center in Queens/mt. Sinai School of Medicine
Studientyp	pre-post-design // interrupted time series??
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	complex (violence safety program: structured risk assessment + individual crisis plan for early intervention + staff training (least restrictive alternatives, intercultural competencies))
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	staff were rostered to different aprts of the ward, which resulted in them working with people who were not ass acutely unwell; daily nursing assessment (brief mental state component, risk of violence or harm to self or others, individual service plan for the following 24h), workshops covering topics such as verbal de-escalation
Beschreibung Patienten	psychiatric in-patients, US-American with special wards for Asians and Latinos
Beschreibung Outcomevariablen	patients confined, confinement episodes,confinement hours
Beschreibung Ergebnisse	Patients confined in all adult units per thousand patient days significantly declined from 5.8 in 1998 to 1.6 in 2003. The lowest rate of individuals confined per thousand patient days occurred in 2002 at 1.3 patients. Confinement events per 1000 patient days in all adult units decreased from 10.9 in 1998 to 3.2 in 2003. The lowest rate of confinement events was in 2002 at 1.7. Total Confinement hours per thousand patient days decreased from 36.6 hours in 1998 to 6.6 in 2003, with the lowest rate occurring in 2002 at 3.0 hours per thousand patient days.
Beschreibung sekundäre	Use of alternative methods for violence control and safety on unit

Ergebnisse	AB-11 in 2003 showed that the most commonly used methods were: 32 % favored talking to staff; 17 % walking with staff; 12 % use of time out or a quiet room/space; 8 % decrease stimulation and 20 % others including special requests for calling specific person on the phone, movie or TV of their choice, talking to another patient with staff assistance. The average length of stay on the adult service did not vary to any large extent during the years measured: 1998 LOS 21.7 days; 1999 LOS 27.5 days; 2000 LOS 30.9 days; 2001 LOS 25.5 days: 2002 LOS 29.3 days; 2003 LOS 29.1. The length of stay on the Adult Units is high largely due to patients needing housing placement.
Beschreibung Nebenwirkungen	The number of injurious behaviors (self-inflicted gestures, and attempts) and altercations (between staff and patients) per thousand patient days on the adult units from 1998 to 2003 were as follows: a general decrease in altercations from 1998 through 2003 from 4.1 to 2.8, the lowest in 2002 at 1.9; a decrease in Adult self-injurious behaviors from 0.9 to 0.4 in 2003. There was some variation in the self-injurious behaviors, with an increase in 2000 to 1.4 and 2002 at 1.1. However, there was a significant decrease in 2003 at 0.4. The trend of decrease in altercation follow the same trend as the decrease in confinement on the Adult Services with the lowest in adult altercations in 2002, the same as the lowest confinement rates. It should be noted that the number of these events per thousand patient days was low throughout this period. The use of IM medication on Unit A between 2001 and 2003 decreased slightly in medications given per thousand patient days from 8.0 to 6.5 and increased slightly in number of patients who received IM medication from 2.3 to 4.3. There was no significant increased trend in use of IM medication for stat emergency purposes in this unit during the reduction in use of restraints and seclusion. The rate of use of special observation hours per thousand patient days decreased on the Adult Service from June 2002 to December 2003 . There was no trend upward in special observation hours with the reduction in restraint and seclusion use during this period.
Dauer Baseline/Intervention/Follow-up	3,5 years baseline? 2,5 years post-intervention?
Funding	Not reported

Nummer	60
Studie	Taxis, J. Carole (2002): Ethics and praxis: alternative strategies to physical restraint and seclusion in a psychiatric setting. In: Issues in mental health nursing 23 (2), S. 157–170.
Institution	University of Texas in Austin/School of Nursing
Studientyp	observational study??

Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex
n Patienten	(86-bed unit)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	A group of nurses discussed S/R, collected data on S/R incidents and developped a program to reduce S/R: The program included (1) development of an assault program, (2) expanded use of individual treatment planning -> development of nonviolent coping skills, (3) implementation of mandatory staff education (somtimes in brief sessions on the unit to make the best use of existing teams) to focus on developing alternatives to restraint and seclusion, (4) patient education to focus on empowering patients to make adaptive choices that enhance self-efŽficacy incl. structured individual debriefing sessions after S/R, (5) environmental alterations -> Oasis room, (6) creation of a communication feedback loop to disseminate information and progress in reducing restraints and seclusions, and (7) administrative and programmatic changes -> audit tool for nurses to check the S/R practive after every event, -> special treatment program for people with personality disorders with group therapy and staff education. There were many concerns about safety, especially from unlicensed personal, leadership and an interdisciplinary group with all clinical disciplines to implement these changes were required.
Beschreibung Patienten	adult unit in a state psychiatric facility, people with psychosis, personality disorders? (long term??)
Beschreibung Outcomevariablen	seclusion and restraint events
Beschreibung Ergebnisse	94 % reduction in the incidence of restraint and seclusion
Beschreibung sekundäre Ergebnisse	comprehensive programmatic changes1
Dauer Baseline/Intervention/Follow-up	42 months
Funding	not reported
Qualitätsbemerkung	insufficient reporting about patient characteristics, data for several quaters are missing, insufficient reporting about when the changes were implemented and in which order, contaminations?

Nummer	61
Studie	Teitelbaum, A.; Volpo, S.; Paran, R.; Zislin, J.; Drumer, D.; Raskin, S. et al. (2007): Multisensory environmental intervention (snoezelen) as a preventive alternative to seclusion and restraint in closed psychiatric wards. In: Harefuah 146 (1), 11-4, 79-80.
Institution	Jerusalem Mental Health Center/Kfar Shaul Psychiatric Hospital

	affilitated with the Hadassah Faculty of Medicine/Hebrew University
Studientyp	CCT, pre-post-design
Kontrollgruppe ja/nein	yes
Komplex ja/nein	no
Interventionstyp	sensory room
n Patienten	626 Männner (davon 234 gsnoezelt, 393 fixiert), 258 Frauen fixiert
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Männer sind Interventionsgruppe: Snoezelen gegen psychomotorische Unruhe, Anspannung, verbale Aggressionen (bei tätlichen Aggressionen, wenn Deeskalation und Medikation nicht hilfreich, Fixierung wegen akuter Eigen/Fremdgefährdung, muss in Israel alle 4 h durch Arzt angeordnet werden). Bei Snoezelen wählt Pat. Stimulus selbst aus, muss selbst aktiv werden, wird dabei über Mikro von einem "enableing therapist" supervidiert: Musik, Lavenedlduft... Pat. ist im Raum alleine, Intervention dauert etwa 30-40 Minuten.
Beschreibung Kontrolle	Frauen sind Kontrollgruppe, kein Snoezelen, TAU.
Beschreibung Patienten	Psychiatrische Patienten mit F20, anderen Psychosen, affektiven Störungen, Persönlichkeitsstörungen, illegaler Drogenkonsum als Komorbidität. Geschlossene Abteilung. Frauen- und Männergruppe unterscheiden sich nicht wesentlich.
Beschreibung Outcomevariablen	Fixierungen pro Bett
Beschreibung Ergebnisse	Frauen haben vor der Intervention signifikant weniger Fixierungen als Männer (1,027 vs. 1,7), Männer haben nach der Intervention signifikant weniger Fixierungen als vor der Intervention (1,17 vs. 1,7). Die Fixierungen sind bei den Frauen über die Zeit extrewm angestiegen (1,027 vs. 2,42), allerdings nicht signifikant wegen hoher SD (Ausreißer?).
Beschreibung sekundäre Ergebnisse	Im Schnitt haben 1,3 Pat pro Tag gesnozelt, Pat. gaben in Umfrage positives Feedback für die Intervention, aggressives Verhalten ging auf Station zurück (nur inder Diskussion erwähnt)
Dauer Baseline/Intervention/Follow-up	6 Monate Baseline, 6 Monate post-intervention
Funding	not reported
Qualitätsbemerkung	Männer-Fruen Vergleich gerechtfertigt, Männer waren zu Beginn signifikant häufiger fixiert (aggressiver??)? Woher kommt große SD und Zunahme bei Frauen?, kein Reporting zu klinischen Daten wie Pathopyschologischen Phänomenen, medikamentöser Behandlung

Nummer	62
Studie	Templeton L; Gray S; Topping J (1998): Seclusion: changes in policy and practice on an acute psychiatric unit. In: J MENT HEALTH 7 (2), S. 199–202.

Institution	Wexham Park Hospital
Studientyp	pre-post-desgn, basline retrospective, post-intervention prospective
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Complex, data use for an audit with consecutive changes in policies and staff education
n Patienten	annual admission rate of around 900
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	All episodes of seclusion between July 1993 and June 1994 were studied retrospectively. Information regarding each patient' s admission and seclusion dates, reason for seclusion and previous attempts to defuse the situation were sought from seclusion forms and the casenotes. The timing of reviews and the identity of staff attending these were recorded as well as the length of the episode. The results were compared to the standards in the Code of Practice and a new policy was written emphasising these standards. The results were presented at the multi-disciplinary audit meeting and staff were educated about the standards. The new policy was accepted and all nursing staff were instructed in its use by senior nurses who were present at the meeting. The audit was repeated retrospectively after a year of its use.
Beschreibung Patienten	open acute psychiatric unit with a lockable room for seclusion
Beschreibung Outcomevariablen	Number of seclusion episodes, Mean length of seclusion (hours), Mean days from admission, Percentage out of working hours
Beschreibung Ergebnisse	In the year 1993±94, 19 patients were involved in 29 seclusion episodes, seven patients being secluded twice and one four times. In the year 1995±96, this fell to 10 patients in 11 episodes despite a slightly increased admission rate (882 admissions in 1993±94 compared to 975 for 1995±96). This represented a 66 % reduction in seclusion use, which was statistically significant ($p<0.01$). In the 1993±94 study, was secluded four times and seven were secluded twice, whereas in the re-audit period, only one patient was secluded twice. There was also a reduction in the proportion of seclusion episodes occurring outside working hours, i.e. weekends and between 5 p.m. and 9 a.m. weekdays (45 % at re-audit compared to 82 % initially). Patients were also secluded later in their admission, mean time being 54 days, median 28 days (range zero to 323 days) compared to a mean of 20 days and a median of 2 days in the earlier audit (range zero to 276 days). The mean length of seclusion fell from 12 hours (range 1 hour 20 minutes ± 50 hours 50 minutes) to 6.5 hours (range 1 hour ± 24 hours 35 minutes). These changes were not, however, statistically significant
Beschreibung sekundäre Ergebnisse	Improvements in documentation were also seen as a result of the audit, with statistically significant improvement in the legibility of staff names on seclusion record. At re-audit, all indications for

	seclusion were appropriate whereas previously inappropriate reasons such as damage to property or absconding had been noted. In addition, significantly more interventions and plans for seclusion were documented. During the re-audit period, more reviews occurred within the recommended time but this difference was not statistically significant. The longest period between reviews was 6 hours, whereas in the first period of study, eight patients waited nine hours or more between reviews. During the first study period, none of the 13 patients secluded for 8 hours or more received an independent review whereas at re-audit, three of five did receive this.
Dauer Baseline/Intervention/Follow-up	1 year baseline, 1 year post-intervention
Funding	not reported

Nummer	63
Studie	van de Sande, R.; Nijman, H. L. I.; Noorthoorn, E. O.; Wierdsma, A. I.; Hellendoorn, E.; van der Staak, C.; Mulder, C. L. (2011): Aggression and seclusion on acute psychiatric wards: effect of short-term risk assessment. In: The British journal of psychiatry : the journal of mental science 199 (6), S. 473–478. DOI: 10.1192/bjp.bp.111.095141.
Institution	Mental Health Centre Bavo-Europoort/University of Applied Science Utrecht; Behavioural Science Institute/Radboud University Nijmegen; Erasmus Medical Centre/Department of Psychiatry/Research Center O3
Studientyp	cluster randomised controlled trial
Kontrollgruppe ja/nein	yes
Komplex ja/nein	no
Interventionstyp	Early Interventions// Structured Risk Assessment, BVC
n Patienten	597 (In the 40-week study period, 617 admissions of 597 individual patients occurred on the four wards. During the 10-week preintervention period 170 patients were resident on the wards. During the intervention period 458 patients were resident on the wards, of whom 207 were admitted to an experimental ward and 251 to a control ward.)
Effekt ja/nein auf S/R	yes (for aggressiveness, duration of seclusion, not for number of seclusion incidents or secluded patients)
Beschreibung Intervention	Structured risk assessment: Patients were monitored daily by psychiatric nurses on the experimental wards by means of risk assessment scales, from the first day of admission until discharge or transfer to another ward. The item scores on the Crisis Monitor were discussed during inter- and multidisciplinary meetings. On a daily basis the Brøset Violence Checklist and the Kennedy–Axis V (short version) scale were used to identify risks of loss of control that might

	result in imminent (but preventable) escalations on the ward. Once a week the Kennedy–Axis V (full version), the Brief Psychiatric Rating Scale (BPRS), the Dangerousness Scale and the Social Dysfunction and Aggression Scale were used. All psychiatric nurses and doctors on the two experimental wards were trained to use the instruments on site directly after the random allocation of the wards to either the experimental or the control cluster.
Beschreibung Kontrolle	TAU (assessment was based purely on clinical judgement)
Beschreibung Patienten	psychiatric inpatients on a acute psychiatric wards, male and female, mean age 38-40, diagnosis: psychosis, personailty disorders, drug misuse, on interventions wards more people were involuntary admitted, more people had psychptic or personality disorders, at baseline the experimental wards had more seclusion hours (1382 vs 985, p< 0.001)
Beschreibung Outcomevariablen	Aggression incidents (SOAS-R), Aggressive patients, seclusion incidents (Seclusion episodes were recorded using the Argus scale, which enables detailed collection and analysis of seclusion rates, in terms of both incidence and duration of the seclusion. On the Argus scale a seclusion incident is defined as a sequence of periods of seclusion separated by no more than 24 h; for example, two single hours in seclusion separated by 36 h would be counted as two seclusion incidents, whereas two single hours in seclusion separated by less than 24 h would be counted as one seclusion incident.), Secluded patients, Seclusion duration. The procedures were continuously monitored by a clinical nurse specialist to avoid underreporting of aggression incidents and seclusion use in both experimental and control arms.
Beschreibung Ergebnisse	The number of incidents of aggression decreased on the experimental wards from baseline to intervention period compared with the control wards. Relative risk ratios between the baseline and intervention period changed substantially, revealing a lower risk of aggression incidents on the experimental wards (RRR =-68 %; risk ratio at baseline 1.12, 95 % CI 0.72–1.76, at intervention 0.36, 95 % CI 0.26–0.50). When converted into number of aggression incidents per week, the rate on the experimental wards decreased from 4.9 incidents per week (i.e. 49 incidents over 10 weeks) during the baseline period to 1.7 incidents per week (52 incidents over 30 weeks) during the intervention period. On the control wards, the number of aggression incidents hardly changed, going from 3.5 incidents per week (35 incidents over 10 weeks) during baseline to 3.9 incidents per week (117 incidents over 30 weeks) during the intervention period. Otherwise, the number of patients engaged in aggression showed a (non-significant) trend towards reduction on the experimental wards during the intervention period compared with the control wards. The relative risk ratios of the number of aggressive patients between the experimental and the control

	wards, corrected for the number of patient days, however, did show a clear decrease (-50 %) between the baseline (risk ratio RR = 1.13, 95 % CI 0.57–3.10) and intervention period (RR = 0.62, 95 % CI 0.40–0.99), albeit with a 13 % overlapping confidence interval (P<0.10). The number of hours spent in seclusion decreased significantly on the experimental wards after the introduction of the Crisis Monitor, in comparison with the control wards. A significant decrease of -45 % in the risk ratio was observed in seclusion hours per admission hours, showing no overlapping confidence intervals: baseline period RR = 1.12 (95 % CI 1.01–1.19), intervention period RR = 0.62 (95 % CI 0.58–0.66). The number of seclusion incidents showed a small but not significant decrease (-15 %) from baseline (RR = 1.19, 95 % CI 0.76–1.88) to intervention (RR = 1.01, 95 % CI 0.74–1.88). The number of individual patients exposed to seclusion also did not increase significantly (+8 %; 100 % overlapping confidence intervals) on the experimental wards during the intervention period, despite a relatively significant increase in the number of patients secluded in the control ward (RR at baseline 1.42, 95 % CI 0.83–2.48; RR at intervention 1.71, 95 % CI 1.12–2.67), but again with 100 % overlapping confidence intervals.
Beschreibung sekundäre Ergebnisse	Regression analyses controlling for patient characteristics on time spent in seclusion per number of admission days revealed significant intervention effects but in opposite directions for baseline (b =-0.71, P= 0.005) and intervention periods (b = 1.34, P<0.0001; goodness-of-fit statistics: deviance 479.419, d.f.= 131 and deviance 1596.856, d.f.= 419, respectively). In this model both short-term (b =-0.78, P<0.0001) and long-term (b =-2.25, P<0.0001) involuntary admission and psychotic disorder (b =-1.71, P<0.0001) showed a negative association with time spent in seclusion. Being aged less than 35 years also showed a positive association with time spent in seclusion (b = 0.35, P = 0.005). Various other regression analyses performed on seclusion incidents and number of secluded patients showed no effect of the intervention, but again involuntary admission as well as a psychotic disorder predicted these outcome variables. Therefore, it seems fair to conclude from these regression analyses that observed differences in patient characteristics did not explain the reduction of time spent in seclusion found on the experimental wards after implementation of the Crisis Monitor.
Dauer Baseline/Intervention/Follow-up	baseline 10 weeks, intervention/control 30 weeks
Funding	The study was funded by the Dutch Ministry of Health to investigate interventions that might contribute to the reduction of use of seclusion in The Netherlands.
Qualitätsbemerkung	Experimental wards had higher baseline measurings, RRR containing differences over time and between wards are discussed,

	randomisation was not successful (-> regression analysis was done)

Nummer	64
Studie	Vruwink, F. J.; Mulder, C. L.; Noorthoorn, E. O.; Uitenbroek, D.; Nijman, H. L. (2012): The effects of a nationwide program to reduce seclusion in the Netherlands. In: BMC psychiatry 12, S. 231. DOI: 10.1186/1471-244X-12-231.
Institution	GGNet (Forensische Psychiatrie?); Mental Health Centre Bavo-Europoort Rotterdam/University of Applied Science Utrecht; Forensic Psycholgy/Behavioural Science Institute/Radboud University Nijmegen; Erasmus Medical Centre/Public Mental Health/Research Center O3; Quantitative Skills/Consultancy for Research and Statistics
Studientyp	interrupted time series?
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Legislative changes/governmental program
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	From 2006 to 2009, the Dutch government provided €5 m annually for a nationwide program to educe seclusion in psychiatric hospitals by 10 % a year. In 2006, grants were awarded to 34 Dutch psychiatric hospitals (approximately 70 % of all psychiatric hospitals), a number that had increased to 42 by 2009 (approximately 90 %). The grants were allocated only to psychiatric hospitals that had a specific plan how to reduce the number of seclusions and would also match the sum they received. The total national investment was therefore €40 m, i.e. €20 m from the government and €20 m from the hospitals. Criteria for receiving the grant included the plan having a specific target for reducing seclusion, developing psychiatric intensive care, gathering reliable data on coercive measures, and enhancing expertise of staff (e.g. using specific strategies for preventing seclusion and dealing with problematic behaviours). The projects were very varied in scope. Some sought reductions at institutional level (e.g. closing seclusion rooms), others at ward level (e.g. through new engagement strategies or aggression de-escalation training), others at patient level (e.g. through crisis plans or aggression-risk assessment), and others by combining various levels and strategies.
Beschreibung Patienten	psychiatric inpatients
Beschreibung Outcomevariablen	annual change in seclusion/involuntary medication (per involuntary hospitalization)
Beschreibung Ergebnisse	Whereas the number of seclusions had increased 3.2 % annually from 1998 to 2005 (logit slope = 1.032), they fell significantly between 2006 and 2009 to an annual decrease of 2.0 % (logit slope = 0.980, difference −5,2 %: $z = -8.58$, $p < 0.001$). The use of involuntary

	medication had increased by 8.5 % annually from 1998 to 2005 (logit slope = 1,085). Between 2006 and 2009, this increase was 8.0 % (logit slope = 1.080, difference −0,5 %: z = −0.54, not significant). A 3.3 % annual decrease in the number of seclusions per involuntary hospitalization from 1998 to 2005 (logit slope = 0.967) was followed between 2006 and 2009 by a significantly greater annual decrease of 4.7 % (logit slope = 0.953, difference −1,4 %: z = −2.37, p = 0.018). A 1.8 % annual increase in the number of involuntary medications per involuntary hospitalization from 1998 to 2005 (logit slope = 1.018) became a significantly greater annual increase of 5.1 % between 2006 and 2009 (logit slope = 1.051, difference 3,3 %: z = 3.16, p = 0.002).
Dauer Baseline/Intervention/Follow-up	baseline 8 years, observation during intervention 4 years
Funding	no conflicts of interest, data provided by Dutch Health Care Inspectorate, funding not reported

Nummer	65
Studie	Wale, Joyce B.; Belkin, Gary S.; Moon, Robert (2011): Reducing the use of seclusion and restraint in psychiatric emergency and adult inpatient services- improving patient-centered care. In: The Permanente journal 15 (2), S. 57–62.
Institution	Office of Behavioural Health for the New York City Health and Hospitals Cooperation
Studientyp	pre-post-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	complex, 6CS, Seclusion and Restraint Reduction Initiative, patient--centered, trauma-informed
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Seclusion and Restraint Reduction Initiative: interdisciplinary change teams are in charge of the initiative at each facility; education about rehabilitation and recovery in a discussion and diologue format, corporate culture change training (“Creating Violence Free and Coercion Free Mental Health Treatment Environments for the Reduction of Seclusion and Restraint” a training from the National Association of State Mental Health Program Directors’ Office of Technical Assistance (OTA)), crises de-escalation training; OTA-

	Consultation; Peer Counselor Program; data transparency: monthly data submission to the corporate office was required and a competition was announced with a prize for the facility with the greatest improvement per year; sensorymodulaiton tools and approaches; Managing agitated patients Work group, implementing emergeny response teams and a new job called Behavioral Health Associate (receives extensive crises prevention and de-escalation training) perform some duties that had been assumed by hospital police, trining modules for hospital police; corporate guidelines on S/R e.g. two-hour-maximum limit on an S/R order for adults; Trauma assessment including effective calming measures, triggers for agitation and preferences regarding S/R
Beschreibung Patienten	Psychiatric Emergency and Adult Inpatient Services (unclear if long term facilities are included)
Beschreibung Outcomevariablen	frequency of S/R per 1000 patient hours, mean duration (minutes) of S/R, patient injuries in pyschiatric emergency services
Beschreibung Ergebnisse	Data captures mechanical as well as manual restraints. The frequency of S/R use per 1000 patients dropped markedly during the project. The total duration of restraint episodes rate per 1000 patient hours dropped by 28 %, and the total duration of seclusion episodes decreased 27 %. In addition, there was a decrease in patient injuries in our PES settings by 56 %. Also, the duration per episode of restraint went from a mean of 246.81 minutes to 57.62 minutes between 2007 to June 30, 2009, a 77 % reduction and the mean duration per episode of seclusion decreased from 88.78 minutes to 50.50 minutes, a 43 % reduction. A one-way analysis of variance (ANOVA) of the mean differences between 2007, 2008, and 2009 was conducted. The overall change in inpatient restraint rate did not achieve statistical significance. However, the patterns of use of these methods did change significantly reflecting more targeted and safer use, and significant reduction in the most acute treatment areas. For the adult inpatient service, reductions in frequency of seclusion, mean duration per restraint and mean duration per seclusion were significant at 0.04. Patient injury (restraint) reduction was significant at 0.05. In the PES settings, frequency of restraints was significant at 0.02 and patient injury was significant at 0.03. Given that at the outset of the Seclusion and Restraint Reduction Initiative some facility leadership and staff were concerned that further reductions in S/R use would be difficult especially with the advent of including counts of manual restraints in the S/R data, these declines strongly speak to the success of the initiative. Unfortunately, staff injuries have remained generally level, which could reflect that despite fewer restraints, those patients that are restrained represent a core of significantly violent or agitated patients that contribute to injury.
Dauer	3 years of observation (2007-2009), mentioned baseline year 2006

Baseline/Intervention/Follow-up	not reported
Funding	No conflicts of interest, funding not reported
Qualitätsbemerkung	baseline missing, insufficient reporting aboout patient characteristics

Nummer	66
Studie	Whitecross, Fiona; Seeary, Amy; Lee, Stuart (2013): Measuring the impacts of seclusion on psychiatry inpatients and the effectiveness of a pilot single-session post-seclusion counselling intervention. In: INT J MENT HEALTH NURS 22 (6), S. 512–521. DOI: 10.1111/inm.12023.
Institution	Alfred Psychiatry, Monash Alfred Psychiatry Research Centre
Studientyp	CCT, retrospective?
Kontrollgruppe ja/nein	yes
Komplex ja/nein	no
Interventionstyp	debriefing// post-seclusion debriefing
n Patienten	31 patients
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Structured debriefing: In developing the content of the intervention, a review of the debriefing published work was conducted with a study by Needham and Sands (2010) particularly influential. They identified five areas that they argued were appropriate for inclusion in postseclusion counselling: (i) counselling; (ii) ventilation; (iii) support and reassurance; (iv) screening for physical adverse effects; and (v) psychoeducation. An emphasis was also on exploring in a discussion between clinician and patient, the patient, staff, and environmental factors that contributed to the occurrence of the seclusion episode, as well as how similar situations in future could be avoided.
Beschreibung Kontrolle	informal debriefing only on patient's request or wehen a need was identified by clinician
Beschreibung Patienten	patients admitted to the acute inpatient service (58 beds on 2 wards), wards divided in a high-dependency unit (behavioural problems, harming self or others) or low-dependeny unit, 14,6 % of 508 patients were secluded on ground floor and 14,8 % of 567 patients on the first floor (basleine?); Participants were mostly male and had a primary diagnosis of a psychotic illness or schizoaffective disorder with the remaining patients having a primary diagnosis of a unipolar or bipolar affective disorder or borderline personality disorder. Highlighting the potential complexity of treating this population, the admission lengths of stay were more than double those of the overall inpatient psychiatry unit during the study period.
Beschreibung Outcomevariablen	Seclusion Register: the number of seclusion episodes across the admission, the number of hours in seclusion across the admission; 22-item Impact of Event Scale-Revised
Beschreibung Ergebnisse	The difference in number of episodes of seclusion for the two groups

	was not significant (t (15.6) = 0.95, P = 0.36), whereas participants on the first floor ward (intervention ward) had significantly fewer hours of seclusion (t (29) = 2.70, P = 0.01) (Fig. 3). Of additional interest, for patients who experienced more than one episode of seclusion (ground floor ward, five; first floor ward, eight), the mean number of seclusion episodes was far higher for patients on the ground floor (mean = 5.20; standard deviation (SD) = 3.83) than the first floor (mean = 2.50; SD = 1.07).
Beschreibung sekundäre Ergebnisse	No differences were found between the groups on ISE-R scale.
Dauer Baseline/Intervention/Follo w-up	10 months of recruiting?
Funding	Alfred research trust

Nummer	67
Studie	Wieman, Dow A.; Camacho-Gonsalves, Teresita; Huckshorn, Kevin Ann; Leff, Stephen (2014): Multisite study of an evidence-based practice to reduce seclusion and restraint in psychiatric inpatient facilities. In: PSYCHIATR SERV 65 (3), S. 345–351. DOI: 10.1176/appi.ps.201300210.
Institution	Human Services Research Institute; Department of Psychiatry/Harvard Medical School/at the Cambridge Health Alliance; Division of Substance Abuse and Mental Health/Delaware Health and Social Services
Studientyp	CCT ?? Case-control-study?
Kontrollgruppe ja/nein	yes
Komplex ja/nein	yes
Interventionstyp	Complex, Six Core Strategies
Untersuchungseinheit	individual psychiatric facility
n Patienten	43 psychiatric facilities
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	6CS implementation stabilized, passing the 20 % threshold then reaching a steady state of an ISRRI score that did not increase or decrease by more than 10 points over a four-month period (N=28)
Beschreibung Intervention II	6CS implementation continuing, passing the threshold then continuing to increase fidelity by adding components throughout the time frame (N=7), Intervention 3: 6 CS implementation decreasing, passing the threshold to reach a plateau and then subsequently declining by more than 10 % (N=5)
Beschreibung Kontrolle	6CS implementation discontinuing, passing the threshold but then subsequently falling below it (N=1); OR 6 CS never implemented, never reaching the threshold score (N=2)
Beschreibung Patienten	psychiatric inpatients including residential programs and psychiatric units in hospitals

Beschreibung Outcomevariablen	Patient-level seclusion and restraint events: S/R rates are sepcified as the percentage of clients secluded or restrained at least once during the report period, duration of S/R events are specified as hours of S/R per total inpatient hours. Implemetation and fidelity was measured with the "Inventory of Seclusion and Restraint Reduction Interventions" (ISRRI) twice (2004 and 07). The ISRRI, which was completed by facility staff knowledgeable about their reduction program, required respondents to indicate retrospectively whether and when a particular activity had been implemented. In the second administration, they were also required to identify any activities that had been discontinued and when this occurred.
Beschreibung Ergebnisse	Nine of the 28 facilities that reached stable implementation achieved reductions in the percentage of the overall population secluded, with an average reduction of 17 % (p=.002). Fifteen reduced the amount of seclusion hours per 1,000 treatment hours, with an average reduction of 19 % (p=.001). Nine facilities achieved reductions in the percentage of patients who were restrained, with an average reduction of 30 % (p=.027). Twelve facilities achieved reductions in the hours of restraint, with an average of 55 %, although the change was not significant.
Beschreibung sekundäre Ergebnisse	The dose-effect analysis tested the hypothesis that facilities in the stabilized implementation category (N=28) would have sharper declines in seclusion and restraint rates than facilities in the other implementation categories. The results shown in Figure 3 indicate that the hypothesis was supported with respect to two of the four outcome measures—those related to average duration of seclusion and restraint events—but not to the proportion of the population secluded or restrained. Facilities in the stable implementation group had the greatest mean change in seclusion hours per 1,000 treatment hours (r=.88, p=.02) and in restraint hours per 1,000 treatment hours (r=.46, p=.05). The greatest reduction in percentage secluded, however, was achieved by facilities in the implementation continuing group. Group differences in the change in the percentage of patients restrained were nonsignificant. It is also noteworthy that the order of the implementation categories in relative degree of change varied with respect to the four outcomes.
Dauer Baseline/Intervention/Follow-up	4 years observation?
Funding	Data collection for this study was funded under task order 280-04-0103 from the Center for Mental Health Services (CMHS) of the Substance Abuse and Mental Health Services Administration (SAMHSA) to the National Association of State Mental Health Program Directors (NASMHPD). Measures from the Behavioral Health Performance Measurement System were licensed for this study by the NASMHPD Research Institute.

Qualitätsbemerkung	not reported which stragies were adopted?

Nummer	68
Studie	Yang, Chin-Po Paul; Hargreaves, William A.; Bostrom, Alan (2014): Association of empathy of nursing staff with reduction of seclusion and restraint in psychiatric inpatient care. In: PSYCHIATR SERV 65 (2), S. 251–254. DOI: 10.1176/appi.ps.201200531.
Institution	Department of Psychiatry and Department of Epidemiology and Biostatistics, University of California, San Francisco
Studientyp	pre-post-design
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	staff training, empathy training
n Patienten	1098 nursing shifts
Effekt ja/nein auf S/R	no
Beschreibung Intervention	mindfulness-based empathy training
Beschreibung Patienten	inpatient psychiatric unit in a general hospital
Beschreibung Outcomevariablen	binary: any vs. no entry of a patients intp S/R in each day or evening shift
Beschreibung Ergebnisse	With controls for shift, patient, and other staffing variables, analyses showed that the presence of more nursing staff with above-average empathy ratings was strongly associated with reduced use of seclusion and restraint but empathy training showed no further benefit.
Dauer Baseline/Intervention/Follow-up	6 months baseline, 6 months post-intervention one year apart
Funding	This project was supported by a University of California, San Francisco, REAC grant.

Nummer	69
Studie	Ashcraft, Lori; Anthony, William (2008): Eliminating seclusion and restraint in recovery-oriented crisis services. In: Psychiatric services (Washington, D.C.) 59 (10), S. 1198–1202. DOI: 10.1176/appi.ps.59.10.1198.
Institution	Recovery Opportunity Center/Recovery Innovations/Phoenix, Arizona, Center for Psychiatric Rehabilitation/Bosto University
Studientyp	Time series?
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex, revovery-oriented
n Patienten	14.500 people per year (12000 in the small, 2500 in the large center)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Seclusion and restraint elimination strategies included strong leadership direction (CEO informing staff tha S/R is not used

	anymore), policy and procedural change, 4x3-hours recovery-based staff training (esp. about trauma, substance abusem strength-based communication, building resilience, giving responsibility back to consumers, avoiding crises rather than managing them, telling stories of recovery and inviting peers to training), consumer debriefing (what should (have been) done to avoid crisis, staff should be more service orientated) and regular feedback on progress.
Beschreibung Patienten	Involuntarily admitted clients (32 % of the total admissions) were brought by police and others who believed them to be a danger to themselves or others. People admitted voluntarily came because they were frightened by their own thoughts and feelings and needed reassurance, support, or medication. Some of the voluntary clients came because they didn't know what else to do. Some were homeless, were hungry, and had no other alternatives. Many were self-medicating with street drugs and alcohol. Primary Diagnosis: Schizophrenia 27 %, Major depression or mood disorder 31.8 %, Bipolar disorder 15.7 %, Substance abuse 15.1 %, ANxiety disorder 2.3 %. When both primary and secondary axis I data were considered, 44.5 % of the individuals seen had a diagnosis of substance abuse. Fifty-five percent were male. LOS was up to 24h in larger unit and up to 5 days in the smaller one.
Beschreibung Outcomevariablen	restraint and seclusions events per month
Beschreibung Ergebnisse	The larger crisis center took ten months until a month registered zero seclusions and 31 months until a month recorded zero restraints. The smaller crisis center achieved these same goals in two months and 15 months, respectively.
Beschreibung Nebenwirkungen	Over the course of the evaluation, the smaller center decreased its yearly staff injuries from 15 to five, whereas the larger center essentially stayed the same (nine to eight).
Dauer Baseline/Intervention/Follow-up	58 months observation after intervention
Funding	The development of this article was supported in part by the National Institute on Disability and Rehabilitation Research (NIDRR) within the Department of Education and the Center for Mental Health Services (CMHS), a division of the Substance Abuse and Mental Health Services Administration.
Qualitätsbemerkung	baseline is missing

Nummer	70
Studie	Corrigan P, Holmes PE, Luchins D, Basit A, Buican B. (1995): The effects of interactive staff training on staff programing and patient aggression in a psychiatric inpatient ward. In: Behavioral Interventions 10 (1), 17-32.

Institution	Center of Psychiatric Rehabilitation/University of Chicago, Tinely Park Mental Health Center
Studientyp	interrupted time series
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	staff training -> social learning program
n Patienten	Two physically seperated housing facilities with 30-32 patients each (one for males, one for females)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	"Interactive Staff Training (IST)" uses principles of organizational psychology to help line-level staff members design and implement social learning programs for severely mentally ill inpatients. IST is a training package that includes assessment of staff perceptions regarding programatic needs, selection of appropriate social learning strategies to meet these needs (here: token economy, social skills trianing), appointment of a program committee from within the ward to champion development of the social learning strategy, and participative decision making about aspects of the social learning strategy. Weekly meetings for one hour.
Beschreibung Patienten	extended care wards at a state hospital, Patients had diagnoses of severe mental illness (e.g., schizophrenia and manic depression) but, for the most part, not developmental disability; they had typically been hospitalized at least 60 days on acute wards prior to transfer to the extended care ward.
Beschreibung Outcomevariablen	The average number of aggressive incidents (operationalized as patient injury, staff injury, fire, theft, damage to property, and unauthorized absences) and physical restraints per quarter.
Beschreibung Ergebnisse	Number of restraints per quarter prior to implementing the token economy averaged 19.0 (SD = 1.7). This average decreased to 11.3 (SD = 0.6) during the period in which the token economy was implemented, a 41 .OYO reduction. The change in aggression-related incidents as a result of the token economy program was not as dramatic; 69.0 incidents were reported per quarter during baseline (SD = 9.3) while only 60.3 incidents (SD = 9.3) were reported during the token economy condition, only a 12.6 % decrement. Data showed that number or physical restraints remained low after introducing the skills training program; 10.0 (SD = 1 .O) restraints were reported per quarter when the skills training modules were operative. Aggression-related incidents per quarter for the tokens plus skills training condition diminished markedly from the token economy alone to 5 1.2 (SD = 1.9), a 26.8 % reduction from baseline.
Dauer Baseline/Intervention/Follo w-up	3 quaters baseline, 3 quaters post intervention token economy, 2 quateres post-intervention token + skills
Funding	grant from the Illinois Department of Mental Health and

	Developmental Disabilities to the University of Chicago to establish the Illinois State Staff Training Institute
Qualitätsbemerkung	unclear reporting: which quarter belongs to which months on the time axis

Nummer	71
Studie	Craig, C.; Ray, F.; Hix, C. (1989): Seclusion and restraint: decreasing the discomfort. In: Journal of psychosocial nursing and mental health services 27 (7), S. 17–19.
Studientyp	interrupted time series?
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex
Effekt ja/nein auf S/R	Yes
Beschreibung Intervention	unit space for seclusion and restraint was renovated, an anteroom was added for continuos observation during S/R, minimum one RN per shift, at least one person for the patients in S/R - this staff is free from all other unit duties, staff education (crises theory, early recognition, prior interventions), interdisciplinary team for decision making, automatic notification of Medical Director/Hospital Adminitrator when S/R > 12 h
Beschreibung Patienten	acute care, state-operated hospital
Beschreibung Outcomevariablen	total restraint hours per month
Beschreibung Ergebnisse	Restraint hours per month declined from 1030 in the year prior to the intervention to 408 in the year after
Beschreibung Nebenwirkungen	average monthly seclusion hours initially increased from 231 to 260 hours, but fell to the lowest totals since record-keeping began after about 10 months
Dauer Baseline/Intervention/Follow-up	12 months baseline, 12 months post-intervention
Funding	not reported
Qualitätsbemerkung	insufficient reporting about patient characteristics, no statistical measures (SD, p etc.)

Nummer	72
Studie	Currier, Glenn W.; Farley-Toombs, Carole (2002): Datapoints: use of restraint before and after implementation of the new HCFA rules. In: Psychiatric services (Washington, D.C.) 53 (2), S. 138. DOI: 10.1176/appi.ps.53.2.138.
Institution	department of psychiatry at the University of Rochester School of Medicine in Rochester, New York
Studientyp	pre-post-design
Kontrollgruppe ja/nein	no

Komplex ja/nein	no
Interventionstyp	Legislative change
n Patienten	4 psychiatric units with a total of 80 beds
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	The rules require that a physician or a licensed independent practitioner make a face-to-face assessment of a patient within one hour of the initiation of restraint or seclusion. The rules also shorten the interval between mandatory renewal orders, codify requirements for staff training, and create more stringent requirements for documentation.
Beschreibung Patienten	The medical center has four specialty units—a child and adolescent unit (not relevant for this review), a general adult unit, a unit for medically ill chemical-abusing patients, and a unit for neurogeriatric patients (not relevant for this review).
Beschreibung Outcomevariablen	number and mean duration of episodes of restraint
Beschreibung Ergebnisse	The overall number of episodes decreased by more than 50 percent after the new rules went into effect (adult unit 20 -> 3 episodes, medically ill chemical abusing unit 15 -> 22). Reductions in the use of restraint were seen on all units except the unitfor chemical-abusing patients, where a 46.7 percent increase occurred. The mean duration of an episode declined by 40.8 percent overall and 72.1 percent on the general adult unit (adult unit 8.6h -> 2.4h, medically ill chemical-abusing unit 11h -> 8.3h). The higher rate of restraint on the unit for chemical-abusing patients may reflect the large number of delirious patients in drug and alcohol withdrawal who were served on the unit.
Beschreibung sekundäre Ergebnisse	The use and duration of seclusion decreased at similar rates.
Dauer Baseline/Intervention/Follow-up	3 months before the new rules, 3 months after
Funding	not reported
Qualitätsbemerkung	insufficient reporting on seclusion, no statistical measures (SD, p etc.)

Nummer	75
Studie	Goodness, Kelly R.; Renfro, Nancy S. (2002): Changing a culture: a brief program analysis of a social learning program on a maximum-security forensic unit. In: Behavioral sciences & the law 20 (5), S. 495–506. DOI: 10.1002/bsl.489.
Institution	North Texas State Hospital
Studientyp	time-series??//pre-posttest design
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Behavioral therapy// social learning program

Effekt ja/nein auf S/R	yes
Beschreibung Intervention	The essence of the Behavior Management Treatment Program's (BMTP's) Social Learning Diagnostic Program that social learning principles are applied during staff–patient interactions and that all patient activities are utilized as diagnostic evaluations aimed at identifying both the patient's engagement problems and effective dangerousness management strategies. In addition, there are five key behavioral concepts that have been incorporated into the core of the BMTP Social Learning Diagnostic Program: modeling, reinforcement, shaping, overlearning, and generalization. A major thrust of the program is the use of positive reinforcement through contingent points (e.g., tokens), differentiated privilege levels, and social reinforcement to shape and maintain adaptive pro-social behaviors. Moreover, the common denominator for all BMTP programming efforts is the focus on developing a Dangerousness Management Plan that is individual specific and capable of assisting all concerned parties in managing the factors that contribute to a particular patient's dangerousness.
Beschreibung Patienten	extremely challenging, treatment resistive patient population on a maximum-security forensic setting (also civilly committed patients)
Beschreibung Outcomevariablen	incidents and hours of emergency interventions (S/R), average no. Of hours and incidents per patient served
Beschreibung Ergebnisse	In fact, in less than two years since changing the program, the average number of incidents of restraint and seclusion dropped by more than 50 %, with FY 1999 (pre-SLDP) having an average of 4.78 incidents per patient served and FY 2001 (post-SLDP) having an average of 2.32. Likewise, the average number of hours that patients spent in restraint and seclusion for each incident absolutely decreased between FY 1999 (pre-SLDP) which saw an 11.20 hour average restraint and seclusion time per patient served and 2000 (post-SLDP) which saw a 10.35 hour average restraint and seclusion time. Even more impressive is that the average number of hours per incident plummeted to 5.75 in FY 2001 (post-SLDP).
Dauer Baseline/Intervention/Follow-up	1 year baseline, 1 year implementation, 1 year post-intervention
Funding	not reported

Nummer	76
Studie	Kostecka, M.; Zardecka, M. (1999): The use of physical restraints in Polish psychiatric hospitals in 1989 and 1996. In: Psychiatric services (Washington, D.C.) 50 (12), S. 1637–1638. DOI: 10.1176/ps.50.12.1637.
Institution	department of psychiatry at the Medical University of Warsaw
Studientyp	pre post

Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Legislative changes and political transformations
Untersuchungseinheit	
n Patienten	In 1989 a total of 452 patients were hospitalized on the 11 wards, 207 men and 245 women. In 1996 a total of 414 patients were hospitalized, 163 women and 251 men.
Effekt ja/nein auf S/R	no ??
Beschreibung Intervention	Political transformation from a totalitarian to a democratic system, implementation of the Mental Health Act in 1995
Beschreibung Patienten	11 locked wards (7 in two large psychiatric hospitals, 4 were run by a scientific institute one of the latter in a general hospital), average age of patients 43, all Caucasian, restrained patients mostly suffered from endogenous psychosis/schizophrenia, alcohol dependence
Beschreibung Outcomevariablen	no of patients restrained, no of restraint episodes, no. Of episoeds divided by total no. Of patinets, no of episodes due to aggression, no. Of episodes due to aggression divided by totasl number of episodes, mean and SD duration of episodes
Beschreibung Ergebnisse	Significantly more episodes of restraint occurred in 1996 than in 1989; the number of episodes increased in each of the wards studied. However, the number of episodes per patient fell, as did the average duration of each episode. In addition the proportion of episodes that were due to patient aggression increased.
Beschreibung sekundäre Ergebnisse	Wards with high global pathology levels as measured by the Kellam's index had higher rates on three measures— the frequency of restraint episodes, the percentage of patients restrained, and the percentage of episodes due to aggression. The Pearson's correlation coefficients were .66 (p=.05), .69 (p=.02), and .54 (p=.1), respectively. The duration of restraint was correlated with the patient-staff ratio. On wards with more patients per staff member, episodes of restraint were longer (r=.7, p=.02).
Dauer Baseline/Intervention/Follow-up	1 year basline (1989), 1 year post intervention (1995)
Funding	Helsinki Human Rights Foundation
Qualitätsbemerkung	Effects of political transformation and new law cannot be distinguished

Nummer	77
Studie	Lloyd C, King R, Machingura T. (2014): An investigation into the effectiveness of sensory modulation in reducing seclusion within a acute mental health unit. In: Advances in Mental Health 12, S. 93–100.
Institution	Behavioural Basis of Health, Gold Coast Campus, Griffith University; Queensland University of Technology; Gold Coast Health Service

	District.
Studientyp	CCT and pre-post-design
Kontrollgruppe ja/nein	yes
Komplex ja/nein	no
Interventionstyp	Sensory modulation
n Patienten	all patient admitted to intervention or control ward in 1 year (2011)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Implementing a sensory modulation room
Beschreibung Patienten	acute mental health inpatient unit, 237 of the seclusion episodes male, 99 female, nothin reported on age, diagnosis of the patients
Beschreibung Outcomevariablen	seclusion episodes per year
Beschreibung Ergebnisse	intervention ward 157 -> 53, effect size 0.24, but duration of seclusion did not change, control ward 46 -> 81
Dauer Baseline/Intervention/Follow-up	1 year baseline, 1 year intervention
Funding	not reported
Qualitätsbemerkung	no randomization and highly increasing number on controll wards, wenig Daten, da von Anfang an auf Jahr aggregiert

Nummer	78
Studie	Moore D. (2010): The least restrictive continuum. In: Inst Nurs Newsl 6, 2-6.
Institution	Mental Health Services South Jersey Healthcare
Studientyp	interrupted time series
Kontrollgruppe ja/nein	yes
Komplex ja/nein	no
Interventionstyp	staff training -> NVCIP (non-violent crisis intervention program)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Six employees became CPI (Crisis Prevention Institute) certified instructor, three of them attended advanced team training, all inpatient nursing employees were certified in NVCIP, code teams respond to silent codes.
Beschreibung Patienten	short term inpatient units (14 beds for children/ados, 28 for adults)
Beschreibung Outcomevariablen	The Moore Safey Code Team Performance/Analyses Tool (the lower the TOOL scores the less restrictive was the intervention de-escalation -> S ->R), injuries, Minutes of restraint Utilization over Patient Care Days
Beschreibung Ergebnisse	The TOOL Score on the adult unit fell from 271 in 2008 (2005: 300, 2006: 392, 2007:431) to 122 in 2009. Minutes of Restraint Utilization over Patient Care Days on the adult unit fell from 0.98 in 2008 (2005: 0.65, 2006: 0.94, 2007: 0.67) to 0.45 in 2009. Just one Injuriy occured on the adult unit in 2007.
Dauer Baseline/Intervention/Follow-up	3 (?) years baseline 1 year in which intervention was implemented (all retrospective?) 1 year follow up, another year wasa not competed
Funding	not reported
Qualitätsbemerkung	retrospective, uncomplete data, willkürlicher Vergleich von Jahren (bspw. 2006 - weil da hoher restraint? Mit Ergebnisejahr 2009), hohe Variabilität in der Baseline

Nummer	79
Studie	Morales, E.; Duphorne, P. L. (1995): Least restrictive measures: alternatives to four-point restraints and seclusion. In: Journal of psychosocial nursing and mental health services 33 (10), S. 13–16.
Institution	Veterans Administrative Center/Albuquerque, Ft. Lyon Veterans Administrative Center/Ft Lyon, College of Nursing/University of New Mexico
Studientyp	pre-post-design, retrospective
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	complex
n Patienten	25
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Team meetings for discussing patients, allternative meassures, early

	signs and symptomes; information for staff (6 articles about Alzheimer, violence and assaultiveness, managing the difficult patient, the use of restraint and seclusion, and staff responsibilities); idea of offering patients two altenrative choices was supported (choices: one-to-one verbal interaction with staff member, quite time, beating on a pillow, warm milk or cold drink, provision of limited exercise, listening to soft music or relaxation tapes)
Beschreibung Patienten	acute psychiatric unit, 30 beds, majority of patients were chronically mentally ill with diagnoses of schizophrenia, organic brain syndrome, bipolar affective disorder, and depression, Primarly men, ager 27-69. Average length of stay 2 weeks.
Beschreibung Outcomevariablen	??
Beschreibung Ergebnisse	By the end of the project, the total tme spent by patients in restraints and seclusion was ESTIMATED(?) to have been reduced by approximately 50 %.
Dauer Baseline/Intervention/Follow-up	3 months during the project, compared with the same 3-month period in the previous 2 years
Funding	not reported
Qualitätsbemerkung	baseline retrospective (Hawthorne effect?), measuring instruments not mentioned, documentation of coercive measures not described

Nummer	80
Studie	O'Malley J, Frampton C, Wijnveld AM et al. (2007): Factors influencing seclusion rates in an adult psychiatric intensive care unit. In: Journal of Psychiatric Intensive Carre 3 (2), S. 93–100.
Institution	Department of Psychological Medicine/Christchurch School of Medicine and Health Science
Studientyp	pre-post-design, retrosepctive, multivariate analysis
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	split (=downsize) unit
n Patienten	(21 shifts baseline, 21 shifts post-intervention, 126 shifts follow up; 1x20 bed unit at baseline, 2x10 bed unit post-intervention/follow up)
Effekt ja/nein auf S/R	Yes
Beschreibung Intervention	Splitting the PICU from a 20 bed unit to two 10 bed units
Beschreibung Patienten	PICU, locked all times, high levels of observation, patients: 18-64 years, require 24 h acute psychiatric care, average LOS 17-20 days, at significant risk of harm to self or others
Beschreibung Outcomevariablen	Seclusion room entry and exit times, unit admission and discharge times were used to calculate hours in seclusion and patient hours in the unit. From this, total patient houtrsin seclusion as a percentage of the total patient hours in the unit (from which the secluded patients came) was calculated per shift.

Beschreibung Ergebnisse	Univariate analysis of variance revealed a significant reduction in the rates from 8,2 % in the first period to 4,4 % in the second and 3,6 % in the third. Multivariant anaylisis: Period, shift and nurse hours all showed independent statistically significant association with seclusion rates and explained 23 % of seclusion while period alone explained 15 %.
Dauer Baseline/Intervention/Follow-up	12 weeks baseline (retrospective), 12 weeks post intervention (retrospective), after a year 6 months follow-up (prospective)
Funding	A Canterbury (New Zealand) District Health Board Research grant of $11,000 supported data collection.
Qualitätsbemerkung	retrospective.

Nummer	**81**
Studie	Smith, Gregory M.; Davis, Robert H.; Bixler, Edward O.; Lin, Hung-Mo; Altenor, Aidan; Altenor, Roberta J. et al. (2005): Pennsylvania State Hospital system's seclusion and restraint reduction program. In: Psychiatric services (Washington, D.C.) 56 (9), S. 1115–1122. DOI: 10.1176/appi.ps.56.9.1115.
Institution	Office of Mental Health and Substance Abuse Services of the Commonwealth of Pennsylvania in Harrisburg, Pennsylvania State University School of Medicine in Hershey
Studientyp	time-series, multivariate analysis
Kontrollgruppe ja/nein	no
Komplex ja/nein	yes
Interventionstyp	Complex
n Patienten	(The annual census for the hospital system during this 11-year period decreased 56 percent, from about 6,300 to about 2,800)
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	advocacy efforts (By 1995 the state government had independent advocates assigned to each hospital, who provided a needed layer of protection for patients on a day-to-day basis), leadership (e.g. defining seclusion as a treatment failure), state policy change (defining S/R, limit use of S/R to emergency situations, defining and prohibiting chemical restraint), improved patient-staff ratios and reduction of unit-size, psychiatric emergency response teams (PERT), incdent management system (tracking S/R, PRN and STAT medications, making 35 performance indicators available on unit level) and second-generation antipsychotics, increase om the quantity and quality of treatment especially training programs to perpare people for discharge, recovery-based approaches and group therapy
Beschreibung Patienten	records of patients older than 18 years who were civilly committed to one of the nine state hospitals in Pennsylvania were included, pattients had severe and persistent mental illness, 53 % were men

Beschreibung Outcomevariablen	Two databases were used in each of the nine hospitals: one identified date, time, duration, and justification for each episode of seclusion or restraint and the other identified when a patient was hospitalized and the demographic characteristics and the diagnosis of the patient. Rate and duration of seclusion and restraint were calculated. Reports from compensation claims were used to determine staff injuries from patient assaults.
Beschreibung Ergebnisse	The rate and duration of seclusion and mechanical restraint decreased dramatically during this period. From 1990 to 2000, the rate of seclusion decreased from 4.2 to .3 episodes per 1,000 patient-days. The average duration of seclusion decreased from 10.8 to 1.3 hours. The rate of restraint decreased from 3.5 to 1.2 episodes per 1,000 patient-days. The average duration of restraint decreased from 11.9 to 1.9 hours.
Beschreibung sekundäre Ergebnisse	No significant changes were seen in rates of staff injuries from 1998 to 2000.
Dauer Baseline/Intervention/Follo w-up	11 years observation
Funding	This research project was funded, in part, by an award from the Ford Foundation in conjunction with Harvard University's John F. Kennedy School of Government and the Council for Excellence in Government through an Innovations in American Government Award.
Qualitätsbemerkung	Paptient population changing to a less actue one (During most of its history the hospital system provided direct admission service. However, during the study period, the admission of civilly committed patients was limited to referrals from local psychiatric acute care settings for individuals who were unable to be stabilized within a 30-day acute care stay)?; No clear intervention, many changes over time, unclear what helped.

Nummer	**82**
Studie	Steinert T, Eisele F, Göser U, Tschöke S, Solmaz S, Falk S. (2009): Quality of Process and Results in Psychiatry: Decreasing Coercive Interventions and Violence among Patients with Personality Disorder by Implementation pf a Crisis Intervention Ward. In: Gesundh ökon Qual manag 14, S. 44–48.
Institution	Abteilung Psychiatrie I der Universität Ulm, Zentrum für Psychiatrie Die Weissenau
Kontrollgruppe ja/nein	no
Komplex ja/nein	no
Interventionstyp	Specialized therapy for personality disorders// Diagnosespezifische Spezialstation
Effekt ja/nein auf S/R	yes
Beschreibung Intervention	Während bis dahin alle in Krisensituationen aufgenommenen

	Patienten mit Persönlichkeitsstörungen (ICD-10: F6) auf eine der vier allgemeinpsychiatrischen, überwiegend geschlossen geführten Aufnahmestationen der Klinik aufgenommen worden waren und die Verteilung nach dem Wohnort erfolgte (Sektorprinzip), wurde eine dieser Stationen ab 1.11.2005 zur Kriseninterventionsstation umfunktioniert, auf die seitdem alle Patienten mit einer Hauptdiagnose F6 oder F4 (Anpassungs- und Belastungsstörungen) aufgenommen werden.
Beschreibung Patienten	Es handelt sich weiterhin um eine Akutstation, d. h. Patienten werden zu jeder Zeit aufgenommen, kommen überwiegend als Notfall, sind bei der Aufnahme häufig suizidal oder auch fremdaggressiv, nicht selten auch intoxikiert bei begleitendem Substanzmissbrauch. Zwangsmaßnahmen können auf dieser Station durchgeführt werden, die Patienten werden zu diesem Zweck nicht verlegt. Bei Patienten mit der Hauptdiagnose F4 handelt es sich überwiegend um Patienten mit suizidalen Krisen oder Zustand nach Suizidversuch, die Zuweisung erfolgt von vorbehandelnden Allgemeinkrankenhusern oder direkt von außen. Diese Patientengruppe ist strukturell ähnlich wie die hier im Fokus des Interesses stehende Gruppe mit Persönlichkeitsstörungen (F6), selbstverletzende und fremdaggressive Verhaltensweisen sind aber seltener und Zwangsmaßnahmen kommen deshalb auch vergleichsweise selten zur Anwendung. Patienten mit primärer Substanzabhängigkeit (ICD-10: F1), psychotischen oder affektiven Störungen (ICD-10: F2, F3) werden nicht auf der Kriseninterventionsstation aufgenommen.
Beschreibung Outcomevariablen	Behandlungsepisoden, Anteil von Fixierung/Isolierung betroffen, mittlere Dauer einer Fixierung/Isolierung, durchschnittliche Anzahl Maßnahmen pro betroffenem Pat, Gesamtzahl freiheitsbeschärnkende Maßnahmen, Suizidversuch, gewalttätige Drohung, Gewalt gegen Gegenstände/Personen, gerichtliche Untebringung (BGB, UBG)
Beschreibung Ergebnisse	Die Gesamtzahl der Zwangsmaßnahmen konnte von 120 bei allen in der Gesamtklinik behandelten Fällen mit der Diagnose einer Persönlichkeitsstörung auf 17 reduziert werden, auch der Anteil der von solchen Maßnahmen betroffenen Patienten reduzierte sich um über die Hälfte. In allen untersuchten Maßen ergab sich eine fast einheitlich gleichgerichtete günstige Tendenz, wenn auch statistische Signifikanz aufgrund der zum Teil kleinen Fallzahlen entsprechender Vorkommnisse nicht immer erreicht (signifikant: Anteil von Isolierung betroffenen 15 % -> 2,7 % $p < 0,001$). Einzig die durchschnittliche Dauer einer Fixierung war deutlich angestiegen, was aber in Anbetracht der sehr geringen Fallzahl von Fixierungen nicht als systematischer Effekt interpretiert werden sollte. Auch aggressive Tätlichkeiten konnten um nahezu die Hälfte reduziert werden. Der Anteil unfreiwillig untergebrachter Patienten reduzierte

	sich von 11,0 auf 3,8 % und damit um zwei Drittel (p < 0,05).
Dauer Baseline/Intervention/Follow-up	1 Jahr vor und 1 Jahr nach Eröffnung der Station
Funding	not reported
Qualitätsbemerkung	kleine Stichprobe, Signifikanz häufig nicht erreicht

Deeskalation und Mitarbeitertrainings

Nummer	1
Autoren	Allen, D.; McDonald, L.; Dunn, C.; Doyle, T.
Jahr	1997
Studie	Changing care staff approaches to the prevention and management of aggressive behaviour in a residential treatment unit for persons with mental retardation and challenging behaviour. In: Research in developmental disabilities 18 (2), S. 101–112.
Studientyp	Prä/Post-Intervention
Dauer Intervention	Bei Stellenantritt, dann Refresher Training alle 6 Monate
Dauer Follow up	5 Jahre
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Residential Treatment Unit for Persons With Mental Retardation and Challenging Behaviour. The unit contained six beds and was located on the campus of a large institution for people with mental retardation
Land	UK
Charakterisierung der Zielgruppe der Trainingsmaßnahme	New staff, All staff
Anzahl Patienten	7 Patienten
Beschreibung Patienten	people with mental retardation and challenging behaviour 7 residents accounting for 90.8 % of possible inpatient days. average age 28years; 4 were male. 6 had been formally detained in institutional care at least once under the powers of the Mental Health Act (1983) as a consequence of the behavioural challenges they posed; 5 had offended against the criminal or civil law, 1 had been in prison on remand; 4 had at some time been placed in private out-of-county facilities because local services felt unable to cope with them.
Beschreibung Intervention	Training: Understanding aggressive incidents, Primary prevention, Secondary prevention, Reactive strategies, Post-incident support for clients and caregivers
Detaillierte Beschreibung der Intervention	# Understanding aggressive incidents: a brief introduction to the nature of aggressive incidents which was based on the time-intensity model developed by Smith and cited in Rowett and Breakwell (1992).S4 # Primary prevention: instruction in modifying or removing known environmental or individual setting conditions or triggers associated with the production of challenging behaviour.N1 # Secondary prevention: instruction in responding safely to early indicators that behaviour is moving away from baseline via verbal and non-verbal defusion/distraction strategies. # Reactive strategies: instruction in safe, efficient, effective responses to critical incidents (including self-defensive strategies and minimal physical restraint procedures).

	# Post-incident support for clients and caregivers: training to sensitise caregivers to the emotional consequences of aggressive incidents. --> Teaching methods included classroom instruction, role play (for developing interpersonal defusion and distraction skills), and repeated practice of physical interventions.
Beschreibung Outcomevariablen	behavioral incidents, overall rate of major reactive strategy use, reduced injuries to both residents and caregivers
Beschreibung Ergebnisse	# overall decreasing trend in total behavioural incidents, there were major outlying peaks in 3 middle years. More serious behavioural incidents were essentially stable, but showed a slightly increasing trend towards the end of the phase. The outlying data points on the graph were largely explained by the fact that one person accounted for 37 % of total recorded incidents in 1992 and 50 % in 1993. The person concerned had Prader-Willi syndrome and a dual diagnosis; Excluding this person' s data from the analysis indicated a clearer decreasing trend in overall behavioural incidents for the group over time (r = -.74, significant at .05 level for a one-tailed test) # The use of the three major reactive strategies of physical restraint, emergency medication, and seclusion was consistently low in relation to total behavioural incidents and showed little variation over time. # Rates of staff client injuries over time, expressed as a percentage of severe behavioural incidents. Once again, clear trends are evident toward decreasing rates of both staff and client injury over time (r values being - . 9 3 and -.75); the relationship between staff injury and time was significant beyond the .05 level for a one-tailed test.
Qualitätsbemerkung	Sehr geringe Patientenzahl

Nummer	2
Autoren	Baker PA; Bissmire D.
Jahr	2000
Studie	A Pilot Study of the Use of Physical Intervention in the Crisis Management of People with Intellectual Disabilities who present Challenging Behaviour. In: Journal of applied research in intellectual disabilities : JARID (13), S. 38–45.
Studientyp	Prä/Post-Intervention
Dauer Baseline	5 Monate
Dauer Intervention	2 Tage
Dauer Follow up	2 Monate
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Wohnanlage für Menschen mit Verhaltensauffälligkeit und Lernbehinderung
Land	UK
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Staff without formally qualification
Anzahl Teilnehmer Interventionsgruppe	17
Anzahl Patienten	10 Patienten
Beschreibung Patienten	people with learning disabilities and challenging behaviour
Beschreibung Intervention	SCIP-Training course (Strategies for Crisis Intervention and Prevention)
Detaillierte Beschreibung der Intervention	Topics: Service Values, Understanding Challenging Behaviour, Prevention, Early Intervention, Health & Safety and the Legal Framework; 25 % of the time was devoted to demonstration and training of physical intervention
Beschreibung Outcomevariablen	1. Fragebogen vor und 3 Monate nach der Intervention bezüglich: Crisis management, Prevention of challenging behavior, supported by organization 2. Messung der Anzahl der Ereignisse und die Reaktion des Personals darauf (verbal, physikal, ignorierend)
Beschreibung Ergebnisse	the number of responses to incidents pre- and post-training indicated that there was a highly significantly increased tendency to respond physically

Nummer	3
Autoren	Barton SA, Johnson MR, Price LV
Jahr	2009
Studie	Achieving Restraint-Free on an inpatient behavioral Health Unit
Studientyp	Prä/Post-Intervention
Dauer Baseline	1 Jahr
Dauer Intervention	regelmässig über ca. 18 Monate,
Dauer Follow up	1 Jahr
Kontrollgruppe ja/nein	nein

Ort der Datenerhebung	Geschlossene Psychiatrische Station
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Front Line Staff
Anzahl Patienten	26 Betten
Beschreibung Patienten	14 Jahre und älter, freiwillige und unfreiwillige Aufnahme, Hauptdiagnosen: Schwere rezidivierende Depression, Bipolare Störung und Schizoaffektive Störung; Mittlere Verweildauer 5-7 Tage
Beschreibung Intervention	Training basierend auf dem "National Executive Training Institute programm 2005 (NETI)
Detaillierte Beschreibung der Intervention	Zusamenfassung: 1. Sensbilisierung des Personals durch Edukation in Traumatherapie, 2. Präventive Massnahmen "olfaktorisch und situativ" "Comfort room", 3. Culture Change: Patienten werden mit Namen angesprochen, ausführliche Besprechung von Restraints, Restraints waren als letzte Möglichkeit stets verfügbar Medien: Handbuch, Film, 3 Tage Präsentationen z.T. interaktiv, Inhalte: 1. Trauma Theorie ("Learning about trauma theory was a major eyeopener.", Many staff react with fear, voicing concern for their safety, as well as patient safety. These concerns must be addressed. Und wie steht nirgends..; The restraint elimination vision had to be kept constantly in the forefront. As a key component in achieving culture change, restraint elimination was constantly addressed, alluded to, promoted, and “talked up” in staff meetings and impromptu gatherings. Staff safety concerns were discussed repeatedly.
Beschreibung Outcomevariablen	1. Messung von Restraints 2004 und 2007 2. Messung Verabreichung Sedativer Medikamente
Detaillierte Beschreibung Outcomevariablen	2. Lorazepam, Haldol, Fluphenazin, Chlorpromazine, Olanzapin
Beschreibung Ergebnisse	1. Ab 2007 keine Restraints mehr 2 . kein Anstieg an Verabreichung sedativer Medikamente, diese gingen um 22 % zurück.

Nummer	**5**
Autoren	Bowers, Len; Nijman, Henk; Allan, Teresa; Simpson, Alan; Warren, Jonathan; Turner, Lynny
Jahr	2006
Studie	Prevention and management of aggression training and violent incidents on U.K. Acute psychiatric wards. In: Psychiatric services (Washington, D.C.) 57 (7), S. 1022–1026. DOI: 10.1176/ps.2006.57.7.1022.
Studientyp	Prä/Post-Intervention
Dauer Intervention	five-day foundation course or a one day annual update course
Dauer Follow up	two-and-a-half years (April 2002 to November 2004)

Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Acute Psychiatric Wards (14 acute admission psychiatric wards at three hospital sites) (One was a female-only ward, a second served as an assessment ward, the remainder were mixed-gender wards serving specific localities.)
Land	UK
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Nursing Staff
Anzahl Teilnehmer Interventionsgruppe	312 course attendances (144 ward staff attended five-day PMVA courses, and 168 attended updates)
Anzahl Patienten	5,384 admissions
Beschreibung Patienten	14 acute admission psychiatric wards at three hospital sites: One was a female-only ward, a second served as an assessment ward, the remainder were mixed-gender wards serving specific localities.
Beschreibung Intervention	PMVA- Training courses in the Prevention and Management of Violence and Aggression Courses consisted of either a five-day foundation course or a one day annual update course.
Detaillierte Beschreibung der Intervention	courses content: theoretical material on factors influencing aggression and signs of imminent violence; discussions pertaining to when restraint can be legally used; teaching breakaway techniques; and teaching manual restraint techniques performed by a three-person team, utilizing pain-free holds based on leverage # 5- day course: prediction, anticipation, and prevention of violence; reporting equirements; the role of personal, environmental, and organizational factors in violence reduction; responses to aggression, involving deescalation, communication skills, problem solving, and negotiation; and the principles and practice of breakaway and manual-restraint skills. # Update course: manual-restraint skills only
Beschreibung Outcomevariablen	violent incident rates
Beschreibung Ergebnisse	# 684 incidents (226 incidents of verbal aggression, 88 incidents of property damage, and 370 incidents of physical aggression) # positive association was found between training and rates of violent incidents # weak evidence that increased rates of aggressive incidents prompted course attendance # no evidence that course attendance reduced violence # some evidence that attendance of briefer update courses triggered small short-term rises in rates of physical aggression # Course attendance was associated with a rise in physical and verbal aggression while staff were away from the ward.
Beschreibung sekundäre	Associations within four-week periods: The relationship between

Ergebnisse	training and aggression was explored by examining the association of aggression to training in the months after the incident and the relationship between training and aggression in the months after the training course. For every one incident of property damage in the month before the course, there was a 38 percent increase in course attendances; for every one incident of physical violence during the month of the course, the rate of course attendance increased by 16 percent, and for every incident of physical violence three months before the course, the attendance rate decreased by 22 percent.

Nummer	6
Autoren	Bybel, Barbara-Ann
Jahr	2011
Studie	Does education of alternative measures decrease the use of physical restraints and seclusion? In: Does Education of Alternative Measures Decrease the Use of Physical Restraints & Seclusion? (D.H.A), 109 p-109 p.
Ort der Datenerhebung	Psychiatrisches Krankenhaus (akut9
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Front Line Staff
Anzahl Teilnehmer Interventionsgruppe	450
Beschreibung Outcomevariablen	the dependent variable is the use of seclusion and physical restraints and the indepenent variable is the number of staff educated on restraint reduction strategies.

Nummer	7
Autoren	Calabro, Karen; Mackey, Thomas A.; Williams, Steven
Jahr	2002
Studie	Evaluation of training designed to prevent and manage patient violence. In: Issues in mental health nursing 23 (1), S. 3–15.
Studientyp	Prä/Post-Intervention
Dauer Intervention	12-hour training
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Akut - psychiatrisches Krankenhaus
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Nursing staff/Mental health care workers (registered nurses (one third), hospital aides (about one half), and activity therapists, social workers and individuals who admit patients (less than ten percent for each of these respective categories).)
Anzahl Teilnehmer Interventionsgruppe	118

Beschreibung Patienten	12 inpatient units. The units housed both male and female patients in either adult, geriatric, child, adolescent, or substance abuse units.
Beschreibung Intervention	The Nonviolent Crisis Intervention° R (CPI), (National Crisis Prevention Institute, Inc, BrookŽ eld, WI) and Handle with Care (Handle with Care Behavioral Management System, Old Bridge, NJ)
Detaillierte Beschreibung der Intervention	# The Nonviolent Crisis Intervention: to increase staff knowledge and self-efŽficacy about defusing potentially violent incidents and preventing assaults, methods to identify nonverbal and verbal behaviors and the use of techniques for managing people whose behaviors could escalate to physical aggression, help staff manage their fear and anxiety in a crisis situation. Practicing the techniques demonstrated during the training helps to provide staff safety and quality care for clients. The basic program consisted of participative lecture, role-plays, a posttest, and self-study as participants work through a study manual supplied by the developers. The hospital training staff customized the intervention for use in the psychiatric setting. Patients with mental illness can be psychotic, agitated, or confused, and their ability to process information may be impaired. As a result, staff were instructed to set clear and simple limits with the patients when communicating both verbally and nonverbally. Staff were taught about hospital policies and procedures and about rights for patients mandated by the state. The training focused on preventing acting-out behaviors through the use of techniques such as reducing environmental stressors, setting consistent limits across shifts, and teaching clients to recognize and cope with anxiety. # Handle with Care" was a lecture about team dynamics for managing aggressive patients and included speciŽfc hospital policies and procedures for physical interventions. To pass this section of the training, staff demonstrated the required self-defense and restraint skills.
Beschreibung Outcomevariablen	Four variables (knowledge, attitude, self-efŽficacy, and behavioral intention to use the training techniques)
Beschreibung Ergebnisse	# the staff's knowledge increased from 6.1 pretest to 7.3 posttest, (t[109] = 7.29, p < 0.001). # For attitude about using the techniques presented in the program, the results showed a signiŽficant change at posttest (t[109] = - 5.68, p < 0.001). The attitude score showed a positive indication of change as measured by the mean score improvement from 18.6 pretest to 16.8 posttest. # For self-efŽficacy, there was signiŽficant positive improvement, (t[114] = - 2.82, p < 0.01). Respondents indicated that their conŽfidence levels and perception about the ease or difŽficulty about using the training techniques changed with a pretest mean of 15.0 to 14.3 posttest. This change indicated that respondents chose responses that displayed enhanced self-efŽficacy.

	# For behavioral intention, there was positive improvement with a mean 10.8 prettest to 10.3 posttest (t[114] = - 1.99, p < 0.05). Respondents chose responses that were stronger for intention to use the techniques learned in the program.

Nummer	8
Autoren	Carmel, Herold; Hunter, Mel
Jahr	1990
Studie	Compliance with training in managing assaultive behavior and injuries from inpatient violence. In: Hospital & community psychiatry 41 (5), S. 558–560.
Studientyp	Fall- Kontroll-Studie
Dauer Intervention	16Stunden einmal + 6h alle 2 Jahre
Dauer Follow up	Erhebungszeitraum 1 Jahr (1986)
Kontrollgruppe ja/nein	ja
Charakterisierung der Kontrollgruppe	The 27 wards were divided into two groups: 18 wards with low compliance with the requirement for training in management of assaultive behavior (less than 60 percent of the staff in compliance) and nine wards with high compliance (more than 60 percent of the staff in compliance).
Ort der Datenerhebung	Forensisches Krankenhaus
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Nursing staff
Anzahl Teilnehmer Interventionsgruppe	244 (High Compliance)
Anzahl Teilnehmer Kontrollgruppe	500 (Low Compliance)
Anzahl Patienten	Low compliance n=643 beds, High compliance n=330 beds
Beschreibung Patienten	Forensic hospital
Beschreibung Intervention	Training program in the management of assaultive behaviour for state hospital of the California Department of mental health
Detaillierte Beschreibung der Intervention	training, which includes attention to interpersonal skills as well as didactic and practical instruction in the management of violent patients.
Beschreibung Outcomevariablen	compliance with the training requirements for management of assaultive behavior and for cardiopulmonary resuscitation (CPR), the rate ofemployee injury from patient violence, and the number of aggressive incidents per bed.
Beschreibung Ergebnisse	1. There was no evidence of a relationship between staff compliance with training in management of assaultive behavior by ward and incidents of patient aggression n the ward. 2. The rate of staff injury from patient violence in the wards with low

	compliance with training in managing assaultive behavior was almost three times the rate in the wards with high compliance

Nummer	9
Autoren	Colenda, C. C.; Hamer, R. M.
Jahr	1991
Studie	Antecedents and interventions for aggressive behavior of patients at a geropsychiatric state hospital. In: Hospital & community psychiatry 42 (3), S. 287–292.
Studientyp	Prä/Post Intervention
Dauer Baseline	16 consecutive days in August 1987
Dauer Follow up	15 consecutive days in January 1988
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Gerontopsychiatrische Klinik, a 210-bed state facility providing long term care.The hospital has a 24-bed admission unit and five long-term care units
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Staff
Anzahl Patienten	118 voluntary and in voluntary admissions a year
Beschreibung Patienten	Patients must be 65 years of age or older, have a primary diagnosis of mental illness or dementia, and reside within the designated 8,833-square mile catchment area in central Virginia. Hospital census data for 1988 showed: 42. 1 per cent of the patient population had dementia (all types), schizophrenia (all types), 22.2 percent; major affective disorder (mania and depression), 1 1.8 percent; organic psychosis, 10.8 percent; and alcohol-related disorders (excluding alcohol-related dementia), 4.4 percent.
Beschreibung Intervention	two kinds of inservice training: 1. training in agenda behavior modification 2. training: series of three clinical case conferences on psychotropic drug use in the elderly.
Detaillierte Beschreibung der Intervention	1. training in agenda behavior modification, which is based on the premise that for patients with dementia, wandering and aggression often stem from loneliness and separation. The assumption is that staff can modify or prevent such behaviors by helping patients feel safe and "connected" in their present environment, using such techniques as reality orientation and reassurance. The agenda behavior modification training was presented to the direct care staff by the clinical nurse specialists in small group sessions. The training was on going. 2. training: series of three clinical case conferences on psychotropic drug use in the elderly, conducted by the senior author for the prescribing physicians. The physicians were encouraged to use low-

	dose neuroleptics for dementia patients who were psychotic; to minimize polypharmacy; and to intervene with p.r.n. medications when potentially violent patients begin to telegraph aggressive behavior.
Beschreibung Outcomevariablen	# All aggressive events committed by patients # the kind of event that triggered them # the kind of staff interventions, based on an instrument designed by the senior author.
Detaillierte Beschreibung Outcomevariablen	# The instrument listed five kinds of aggressive events: patient-patient exchange, patient-staff exchange, yelling or threatening behavior, physical and vocal behavior, and property damage. Patient-patient exchange and patient-staff exchange were defined as physically aggressive behavior "such as hitting, pushing, or biting" between patients or between patient and staff, respectively. Yelling or threatening behavior referred to patients' cursing, yelling, or making verbal threats at staff or patients. Physical and vocal behavior was defined as both physical and vocal aggression toward staff or patients. # Four categories of triggering events were documented: unknown or not observed, patient-patient exchange, patient-staff exchange, and group activity (such as congregate dining or a group outing). # Interventions were documented in six categories: no intervention, removal of patient from the stimulus (but without intensive supervision), one-to one supervision, seclusion or restraint, p.r.n. medication, and p.r.n. medication plus seclusion or restraint.
Beschreibung Ergebnisse	1st survey: n=48 agitated or aggressive patients with and without dementia, between 66 to 93 years who committed 199 aggressive events. 2nd survey: n=40 agitated or aggressive patients with and without dementia, between 65 to 87 years who committed 119 aggressive events. # Patient behaviors: total rate of aggression was stable across both study periods, at 1.49 and 1.36. Both surveys found dementia patients to have a higher rate of aggression than nondementia patients (.99 compared with .50 in the first survey period, and .85 compared with .5 1 in the second). Dementia patients also had a higher rate of aggressive events in both survey periods. Based on the formula for calculating change between surveys, the total aggressive event rate for all patients dropped by 23.6 percent across surveys. # Triggering events: In both surveys, the triggering event most often listed was "unknown or not observed", especially for yelling or threatening behavior. Patient staff exchange was listed as the second most frequent triggering event, especially for dementia patients, and was most frequently associated with physical aggression between staff and patients. It was also the category in which the largest reduction of triggering events for both dementia and nondementia patients was recorded between surveys. # Staff interventions: During the first survey, for both dementia and

	nondementia patients the most frequent staff intervention for aggression was one-to-one supervision, followed by removal of the patient from the situation. P.r.n. medication, seclusion or restraint, and a combination of the two were used much less frequently.
Beschreibung sekundäre Ergebnisse	# Both surveys found dementia patients to have a higher rate of aggression than nondementia patients. # Both surveys found that most aggressive events occurred during the day shift. # Based on the formula for calculating change between surveys, the total aggressive event rate for all patients dropped by 23.6 percent across surveys.

Nummer	10
Autoren	Cowin, Leanne; Davies, Rhian; Estall, Graham; Berlin, Theresa; Fitzgerald, Maria; Hoot, Sandra
Jahr	2003
Studie	De-escalating aggression and violence in the mental health setting. In: International journal of mental health nursing 12 (1), S. 64–73.
Studientyp	Prä/Post Intervention
Dauer Follow up	3 Monate
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Acute mental health-care unit (MHU) and the emergency department (ED) at Liverpool Hospital, Sydney
Land	AUS
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Nursing Staff MHU und Nursing Staff ED
Beschreibung Intervention	de-escalation kit: educative and informative package (kit) on de-escalation. The kit include the de-escalation poster, a nursing staff survey to test pre- and post-knowledge and awareness of de-escalation, an in-service education session that explored the important processes involved in successful de-escalation using case studies for group discussions and a literature discussion paper.
Detaillierte Beschreibung der Intervention	The goals of the de-escalation project were to develop an informative poster for use in an ED and MHU that could serve as a useful reminder to nurses of the processes and skills involved in de-escalation. The in-service education lecture supported the introduction of the poster by offering nurses an opportunity to discuss and examine their current knowledge while improving their understanding within a group of their peers. The use of a pre- and post-test survey provided the de-escalation development group with an excellent opportunity to test nurses' knowledge and awareness and examine any changes over time.

Beschreibung Outcomevariablen	increase in de-escalation knowledge and awareness
Beschreibung Ergebnisse	# Mental health-care unit within-group differences over time: Overall, the results revealed an increase in de-escalation knowledge and awareness for the nursing staff of the MHU although there were no significant changes noted in an analysis of variance. While the total mean scores from T1 to T2 were non-significant for the small sample size, the total scale mean score increased from 48.07 to 49.73 thereby demonstrating a positive effect from the intervention (de-escalation poster and in-service education). # Emergency department within-group differences over time: An overall non-significant increase in de-escalation knowledge and awareness was also apparent for the nursing staff of the ED. There was a rise in total mean scores from T1 to T2 (41.18–42.43). a number of non-significant rises in individual item scores as well as a number of falls from pre-intervention to post-intervention. The differences between scores from T1 to T2 were less than those of the MHU, indicating less change (Table 1). The fall in mean score for item 3 from 3.39 at T1 to 3.27 at T2 may have been the result of staff changes in the ED. For example, shortly after the administration of the survey at T1 a fulltime security guard was employed to work within the ED thereby making it easier for the nursing staff to gain security help at any time throughout their shift.

Nummer	11
Autoren	Dickens, G.; Rogers, G.; Rooney, C.; Mc Guinness, A.; Doyle, D.
Jahr	2009
Studie	An audit of the use of breakaway techniques in a large psychiatric hospital. A replication study. In: Journal of psychiatric and mental health nursing 16 (9), S. 777–783. DOI: 10.1111/j.1365-2850.2009.01449.x.
Studientyp	Prä/Post Intervention
Dauer Intervention	initial induction and refresher updates are provided annually
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	St Andrew's Hospital, Northampton
Land	UK
Charakterisierung der Zielgruppe der Trainingsmaßnahme	all Staff (any members of clinical or nonclinical staff, ward-based or otherwise). Sampling was opportunistic.
Anzahl Teilnehmer Interventionsgruppe	147
Anzahl Patienten	0
Beschreibung Patienten	inpatient services for approximately 500 adults and adolescents with mental disorder, learning disability or acquired brain injury. Many

	patients have challenging behaviours
Beschreibung Intervention	break away from simulations of potentially life-threatening scenarios in a timely manner, and using the techniques taught in annual breakaway or refresher training. Breakaway techniques comprise a set of physical skills to help separate or break away from an aggressor in a safe manner, but do not involve the use of restraint.
Detaillierte Beschreibung der Intervention	The audit team = three conflict management advisors; One of the three, the lead auditor, was assigned to play the role of violent assailant while the other two independently assessed the participant's use of breakaway techniques to escape from the hold. Participants were requested to randomly select one of five unmarked envelopes. Each envelope contained one of the following scenarios: • a straight arm strangle hold from the front; • a hair pull from the front; • neck lock; • bar neck lock; and • a bear hug with arms trapped. The lead auditor read aloud the scenario and gave the participant 5 s to think about the situation before the simulation commenced. If the participant had not escaped within 10 s the simulation was halted. The two independent raters completed the audit measures during the scenario. Participants were given a chance to discuss the experience afterwards.
Beschreibung Outcomevariablen	"used taught technique" "successful breakaway" within an appropriate time frame (10 s)
Detaillierte Beschreibung Outcomevariablen	# correctly recalled and implemented the techniques taught to them to 'break away' from a simulated life-threatening situation # and did so within an appropriate time frame (10 s)
Beschreibung Ergebnisse	# Only 21/147 (14.3 %) of participants correctly used the taught techniques to break away within 10 s. However, 117 (79.6 %) of people were able to break away from the scenarios within 10 s but did not use the techniques taught to them.

Nummer	12
Autoren	Fitzwater, Evelyn L.; Gates, Donna M.
Jahr	2002
Studie	Testing an intervention to reduce assaults on nursing assistants in nursing homes. A pilot study. In: Geriatric nursing (New York, N.Y.) 23 (1), S. 18–23.
Studientyp	Randomisierte-kontrollierte Studie (Prä/Post Intervention)
Dauer Baseline	2 Wochen
Dauer Intervention	4 Stunden

Dauer Follow up	2 Wochen
Kontrollgruppe ja/nein	ja
Charakterisierung der Kontrollgruppe	Jeweils 10 certified nurse assistents (CNAs) in 2 nursing homes: Interventionsgruppe (120 Betten), Kontrollgruppe (100 Betten)
Ort der Datenerhebung	Pflegeheim
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Certified nursing assistants (CNA)
Anzahl Teilnehmer Interventionsgruppe	10
Anzahl Teilnehmer Kontrollgruppe	10
Anzahl Patienten	Intervention (120 Betten), Kontrollgruppe (100 Betten)
Beschreibung Intervention	Multifaceted, multisite intervention program
Detaillierte Beschreibung der Intervention	The workshops involved roleplaying, simulation, discussion, lecture, videotapes, and return demonstration of self-protection techniques. Zudem gab es eine Checkliste zur Prävention von Vorfällen
Beschreibung Outcomevariablen	Assault Incidents, Daily Log-Selfreport
Detaillierte Beschreibung Outcomevariablen	Assault included any sudden physical attack, such as biting, kicking, hitting with the body or other object, pinching, spitting, scratching, or pushing. The log is a daily self-report tool that includes five data categories: caregiver demographics, gender of resident who assaulted caregiver, type of physical assault, injury, and type of caregiving activity at the time of assault
Beschreibung Ergebnisse	an educational intervention can effectively decrease assaults against caregivers and increase the confidence level of staff

Nummer	13
Autoren	Ford, Paul
Jahr	2012
Studie	Patient Care Provider Safety. Examining a Training Intervention to Reduce Hospital Violence. In: Patient Care Provider Safety: Examining a Training Intervention to Reduce Hospital Violence (Ph.D), 107 p-107 p.
Dauer Baseline	12 Monate
Dauer Intervention	1 Stunde
Dauer Follow up	12 Monate
Kontrollgruppe ja/nein	ja
Ort der Datenerhebung	Akutkrankenhaus (incl. Psychiatrie)
Land	US
Charakterisierung der Zielgruppe der	Caring staff

Trainingsmaßnahme	
Beschreibung Patienten	Geriatrische und Kardiologische Stationen vs. Kontrollen
Beschreibung Intervention	One-hour de-escalation and selfdefense training
Detaillierte Beschreibung der Intervention	De-escalation taught both nonverbal and verbal methods to calm, display respect, and encourage continual dialog. The self-defence portion provided basic techniques of escaping the most common forms of physical contact by patients and visitors, beginning with methods to seek assistance and understanding the importance of identified escape routes. Next was demonstration of and practicing escapes from arm grams, clothing grabs, hair pulls, and blocking punches.
Beschreibung Outcomevariablen	1. Number of calls to security for assistance from patient care staff
Beschreibung Ergebnisse	1. Signifikant weniger "Code grey", d.h. Arlamierungen des Sicherheitsdienstes 2. Weniger physische Gewalt dafür mehr verbale Gewalt

Nummer	14
Autoren	Forster, P. L.; Cavness, C.; Phelps, M. A.
Jahr	1999
Studie	Staff training decreases use of seclusion and restraint in an acute psychiatric hospital. In: Archives of psychiatric nursing 13 (5), S. 269–271.
Studientyp	Prä/Post Intervention
Dauer Baseline	12 Monate
Dauer Intervention	annual 2-hour review course and weekly discussions
Dauer Follow up	12 Monate
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	San Francisco Country Community Mental Health Services, John George Psychiatry Pavillon, Gateway Psychiatric Services
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	all staff members with any patient contact
Anzahl Patienten	?? (Approximately 6,500 patients are evaluated in the Psychiatric Emergency Service annually, and nearly 2,000 are admitted for inpatient treatment.
Beschreibung Patienten	acute-psychiatric hospital: 4 locked wards, 1 emergency service
Beschreibung Intervention	Interventions included a mandatory staff training session on the management of assaultive behavior, weekly discussion items during team meetings for each local ward, and hospital-wide publicity charting the ongoing progress of the effort
Detaillierte Beschreibung der Intervention	The multidisciplinary committee met biweekly during paid work time and only nursing and occupational therapy staff to attend an annual 2-hour review course: 1.to increase awareness of the factors leading to

	patient agitation and violence; 2. to promote the knowledge and use of less restrictive measures, such as seclusion without restraint; 3. to increase safe staff reactions to violence # The program emphasized a hands-on approach. Each staff member experienced 5-point restraints first-hand, and many cited that experience as pivotal in their decision whether or not to restrain a patient in a state of agitation when queried 1 year after the course. # Hands-on self-defense training was taught and optimal "containment" techniques were practiced to minimize the risk of patient or staff injury. Inappropriate uses of restraint (for staff convenience or because of irritation) were discussed, and participants role-played verbal interventions that may be used as less restrictive alternatives to physical containment. The intervention also included weekly discussion items about S&R during team meetings for each local ward and hospital-wide publicity charting the ongoing progress of the effort.
Beschreibung Outcomevariablen	Rates of the use and duration of seclusion and restraint episodes, and number of staff injuries incurred during physical containment
Beschreibung Ergebnisse	The total annual rate of restraint decreased 13.8 % overall, from 2,379 episodes per 2,560 admissions in 1995, to 2,380 episodes per 3,010 admissions in 1996. The average duration of seclusion or seclusion and restraint per episode was reduced 54.6 %, from 13.9 hours/episode in 1995 to 6.3 hours/episode in 1996. Staff injuries were reduced 18.8 % from 48 incidents in 1995 to 39 in 1996
Funding	Not reported
Qualitätsbemerkung	Contamination due to other changes (LOS decreases, admissions increase), all staff injuries should have been counted, not just those linked to containment

Nummer	15
Autoren	Geoffrion, Steve; Goncalves, Jane; Giguere, Charles-Edouard; Guay, Stephane
Jahr	2017
Studie	Impact of a Program for the Management of Aggressive Behaviors on Seclusion and Restraint Use in Two High-Risk Units of a Mental Health Institute. In: The Psychiatric quarterly. DOI: 10.1007/s11126-017-9519-6.
Studientyp	Prä/Post Intervention
Dauer Baseline	Pre-training data (April 2010–December 2011)
Dauer Intervention	4 Days training
Dauer Follow up	data during training (January 2012–October 2012) posttraining data (November 2012–July 2014)
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	emergency unit and the intensive care unit, which each have a 12-bed

	capacity
Land	CAN
Anzahl Patienten	The yearly average number of admissions for this period is 210 patients in the intensive care unit and 1041 patients in the emergency unit
Beschreibung Intervention	Omega training
Detaillierte Beschreibung der Intervention	The training is delivered by peer trainers (security agents) on a four-day period and seeks to teach participants the skills and intervention methods necessary to ensure their safety and that of their patients in situations of aggression. Participants are taught the fundamental values (i.e., respect, professionalism, accountability, and security) and principles (i.e., to protect oneself, to assess the situation, to predict behavior, to take the time needed, and to focus on the person) of Omega. Participants are also taught a pacification approach and the use of a grid for classifying behaviors and levels of dangerousness of potentially aggressive individuals. Levels of dangerousness include emotional tension, conditional cooperation, refractory behavior, destructive behavior, psychological intimidation, active resistance, physical aggression, serious assaults, and exceptional threats. Seven levels of interventions are classified in an intervention pyramid ranging from mitigation (i.e., resolving the aggressive crisis situation or the acute crisis with an approach focused on the safety of the patient) to physical intervention (i.e., last resort intervention, used when the patient or client has imposed an act of protection or control). The training also provides the necessary tools to complete a post-incident report.
Beschreibung Outcomevariablen	number and duration of S/R
Detaillierte Beschreibung Outcomevariablen	number and duration of S/R --> reducing potential emotional and physical harm patients may cause to themselves and staff, as well as in maintaining a positive and trustful atmosphere between the patients and the staff in the unit
Beschreibung Ergebnisse	A total of 6933 S/R were registered in the Intensive care unit between April 1st 2010 and July 31st 2014. For the same period, a total of 880 S/R were registered in the Emergency unit. # Intensive care unit: increase of both mean daily number and duration of S/R pre-training followed by a decrease during the training and post-training. # Emergency unit, no statistically significant differences were observed. A decrease had already started prior to the Omega training program
Funding	This study was funded by the Canadian Institutes of Health Research

Nummer	16

Autoren	Gertz, B.
Jahr	1980
Studie	Training for prevention of assaultive behavior in a psychiatric setting. In: Hospital & community psychiatry 31 (9), S. 628–630.
Studientyp	Prä/Post-Intervention
Dauer Baseline	1 Jahr
Dauer Intervention	2-tägiger Workshop
Dauer Follow up	1 Jahr
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Psychiatrisches Krankenhaus in Denver
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Alle Berufsgruppen
Anzahl Teilnehmer Interventionsgruppe	317
Beschreibung Intervention	Two-day workshop: goals: to increase their skills in defusing or de-escalating potentially violent behavior, to learn to apply both defensive and restraining techniques, and to develop plans for improving the prevention of assaultive incidents
Beschreibung Outcomevariablen	Anzahl der Vorfälle
Beschreibung Ergebnisse	center’s staff and administration: increased confidence by giving all a valuable set of guidelines for managing assaultive behavior. A study to assess any reduction in patient-related accidents as a result of the workshop showed that in calendar year 1979 there were 117 such incidents compared with 174 in 1978. A one-day workshop has been designed to teach nonclinical staff members similar methods for the management of disturbed patient behavior.

Nummer	17
Autoren	Huizing, Anna R.; Hamers, Jan P. H.; Gulpers, Math J. M.; Berger, Martijn P. F.
Jahr	2006
Studie	Short-term effects of an educational intervention on physical restraint use. A cluster randomized trial. In: BMC geriatrics 6, S. 17. DOI: 10.1186/1471-2318-6-17.
Studientyp	Cluster-randomisierte kontrollierte Studie
Dauer Intervention	5x 2-stündige Meetings in insgesamt 2 Monaten für 23 ausgewählte Nurses 1x 1,5 Stunden Plenatsitzung für alle Nurses der Interventionsstationen
Dauer Follow up	1 Monat
Kontrollgruppe ja/nein	ja

Charakterisierung der Kontrollgruppe	3 Wards mit Intervention, 2 Wards ohne Intervention als Kontrollgruppe
Ort der Datenerhebung	Psycho-geriatrisches Wohnheim (5 Stationen)
Land	NL
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Nursing staff
Anzahl Teilnehmer Interventionsgruppe	23 Nursing staff from Interventions wards
Anzahl Teilnehmer Kontrollgruppe	0
Anzahl Patienten	145 (Insgesamt 5 Stationen: intervention (3 wards) or control status (2 wards)) Ursprünglich 167, aber einige verstorben
Beschreibung Patienten	Patienten mit Demenz
Beschreibung Intervention	educational programme combined with consultation with a nurse specialist
Detaillierte Beschreibung der Intervention	# educational programme: decision-making process towards restraint use, the effects and consequences of restraint use, strategies to analyse risk behaviour of residents and alternatives for restraints. discussion of real-life cases during the educational meetings. small-scale meetings with an active learning environment for the nurses. # The consultation with the nurse specialist focused on supporting nurses in achieving restraint-free care and complying with the decision-making process concerning restraint use
Beschreibung Outcomevariablen	1. restraint prevalence and intensity of use 2. Effect on multiple restraint use 3. Effect on different restraint types
Detaillierte Beschreibung Outcomevariablen	Datensammlung mittels Fragebögen (Baseline und 1 Monat nach Intervention) und "Beobachtern" zu 1. Restraint prevalence was defined as the percentage of residents observed restrained at any time during the 24-hour period. Restraint intensity indicated the number of times in four observations that a particular resident was restrained. zu 2. Multiple restraints indicated the number of different restraint types used per resident recorded during the four observations. zu 3. Restraint types were also recorded in order to gain insight into the types of restraint used with residents. Any device with limitation on an individual's freedom of movement was regarded as a restraint. Examples of restraint types are chairs with tables, belts tied to a chair or bed, bilateral bed rails, sleep suits, special sheets (a fitted sheet including a coat that encloses a mattress), chairs with a board (a chair with chair legs fixed to a board), infrared systems, safe seats, and deep or overturned chairs.

Beschreibung Ergebnisse	Interventionsgruppe: Restraint use did not change significantly over time in the experimental group (55 %–56 %) Kontrollgruppe: significant increased use (P < 0.05) in the control group (56 %–70 %). The mean restraint intensity and mean multiple restraint use in residents increased in the control group but no changes were shown in the experimental group. Logistic regression analysis showed that residents in the control group were more likely to experience increased restraint use than residents in the experimental group
Beschreibung sekundäre Ergebnisse	# Restraint prevalence: Restraint prevalence in the experimental group did not change significantly. Restraint prevalence during the morning, afternoon, evening and at night did also not change over time. However, restraint prevalence in the control group increased significantly from 56 % to 70 % (P = 0.021), and there was a statistically significant increase in restraint use in the morning and at night. # Restraint intensity: Comparison of restraint intensity and the average score of restraint intensity at both measurements showed no statistically significant differences between the experimental and control groups. There was a significant increase in the mean score of restraint intensity over time in the control group from 1.41 to 1.89. The mean restraint intensity did not change over time in the experimental group. Although the mean score in the control group increased more (gain score = 0.48) compared to the experimental group (gain score = 0.13), the gain score difference was not statistically significant (P = 0.133). # Multiple restraints: The control group had a significantly higher mean score of multiple restraint use at post-intervention compared to the experimental group (P = 0.033). # Restraint types: 12 different restraint types were found to be used with nursing home residents. The most frequently used restraints at baseline were bilateral bed rails (57 %), sleep suits (14 %), belts in bed (11 %), belts in chairs (8 %), and chairs with a table (8 %). Comparison in the use of different restraint types at baseline between the control and experimental groups showed that more sleep suits were used with the control group (23 %) compared to the experimental group (7 %) (P = 0.008). At post-intervention, even more sleep suits were used with the control group (36 %) compared to the experimental group (12 %) (P ≤ 0.001). The use of sleep suits in the control group increased significantly over time from 22 % to 38.9 % (P = 0.012). The increased use of belts in bed with the control group, from 9 % to 19 %, nearly reached the level of statistical significance (P = 0.063). No significant changes occurred over time in the experimental group (Table 4).

Nummer	18

Autoren	Hurlebaus, A. E.; Link, S.
Jahr	1997
Studie	The effects of an aggressive behavior management program on nurses' levels of knowledge, confidence, and safety. In: Journal of nursing staff development : JNSD 13 (5), S. 260–265.
Studientyp	Randomisierte-kontrollierte Studie (Prä/Post Intervention)
Dauer Intervention	4 Stunden
Kontrollgruppe ja/nein	ja
Charakterisierung der Kontrollgruppe	Entsprechend der Interventionsgruppe wurde eine Kontrollgruppe mit ähnlichen Qualifikationen und Berufserfahrung zusammengestellt
Ort der Datenerhebung	Krankenhaus
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Nursing staff
Anzahl Teilnehmer Interventionsgruppe	13
Anzahl Teilnehmer Kontrollgruppe	10
Beschreibung Intervention	Workshop: "Managing Aggressive Behavior"
Detaillierte Beschreibung der Intervention	Introduction, Discussion about general crime and crime specific of the institution, Verbal and nonverbal signs of increasing agitation, Comunication scills, Body Language, Tone of voice, Eye contact, nonphysical interventions as preferred method, use of phyical defense techniques discussed and demonstraed, superviced practice of self-defence and breake away techniques
Beschreibung Outcomevariablen	1. Objektiver Wissenszuwachs 2. Messung der Sicherheit des Personals im Umgang mit der Sitation und bezüglich des subjektiven Bewältigungsvermögens
Detaillierte Beschreibung Outcomevariablen	1. Schriftlicher Test prä/post Intervention zur objektiven Wissenkontrolle mittels 15 Fragen (Ja/Nein und Multiple Choice) 2. Messung der Sicherheit und des subjektiven Bewältigungsvermögen mittels einer visuellen Analogskala
Beschreibung Ergebnisse	1. Significant differences in knowlege, no significant changes in safety or confidence

Nummer	19
Autoren	Ilkiw-Lavalle, Olga; Grenyer, Brin F. S.; Graham, Linda
Jahr	2002
Studie	Does prior training and staff occupation influence knowledge acquisition from an aggression management training program? In: International journal of mental health nursing 11 (4), S. 233–239.
Studientyp	Prä/Post-Intervention
Dauer Intervention	2 Tage
Kontrollgruppe ja/nein	nein

Ort der Datenerhebung	Multizentrische Psychiatrische Stationen (Geschlossen, Offen, Akut, Subakut)
Land	AUS
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Nursiing staff, Medical health staff (Psychologen, Sozialarbeiter, Ärzte), sonstige Beschäftigte (Administrativ, Hauswirtschaft usw)
Anzahl Teilnehmer Interventionsgruppe	103 (42 Nursing, 18 Medical healt, 37 Ancillary Staff)
Beschreibung Patienten	Psychiatrische Stationen (Geschlossen, Offen, Akut, Subakut)
Beschreibung Intervention	INTACT Aggression Management Program (Graham 1999)
Detaillierte Beschreibung der Intervention	Gruppengrösse 13 Teilnehmen, Aushändigung Kursbuch, Gruppenarbeit, Rollenspiele, Übung von Selbstverteidigungstechniken, Unterricht in Legalen Aspekten, Charakteristika von Aggression, Vorhersehbarkeit von Aggression, Management von Agression und Selbstschutz
Beschreibung Outcomevariablen	1. INTACT knowledge evaluation (Schirftlicher Wissenstest) 2. Program evaluations Fragebogen bezüglich, Zielsetzung, Verständlichkeit des Kursbuches und des Kursleiters, Unterrichtsmaterials, Praktischen Kursanteile und Kursdauer
Detaillierte Beschreibung Outcomevariablen	1. Schriftlicher Täst (14 Punkte) prä/post intervention bezüchlich Charakteristika, Erkennungsmerkmale, Management und Legale Aspekte im Bezug zu aggressivem Verhalten 2. Evaluationsfragebogen
Beschreibung Ergebnisse	1. Alle Gruppen profitierten signifikant im Wissenzuwachs, am meisten die mit der schlechtesten Vorbildung 2. Insgesamt war die Belegschaft mit dem INTACT Programm zufrieden.

Nummer	20
Autoren	Infantino, J. A., JR; Musingo, S. Y.
Jahr	1985
Studie	Assaults and injuries among staff with and without training in aggression control techniques. In: Hospital & community psychiatry 36 (12), S. 1312–1314.
Studientyp	Fall- Kontroll-Studie
Dauer Intervention	3 Tage zu 8h
Dauer Follow up	Erhebungszeitraum 9 Monate
Kontrollgruppe ja/nein	ja
Charakterisierung der Kontrollgruppe	Angestellte ohne ACT Training
Ort der Datenerhebung	State Hospital
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Angestellte mit direktem Patientenkontakt

Anzahl Teilnehmer Interventionsgruppe	31
Anzahl Teilnehmer Kontrollgruppe	65
Beschreibung Intervention	Training in Aggression Control Techniques (ACT) Florida
Detaillierte Beschreibung der Intervention	3 Trainingsphasen zu Verbale Deeskalation, Selbstverteidigungsmassnahmen bei Tätlichkeiten. Phae 1: Vorgehensmassnahmen entsprechend der Patientenrechte und Verbale Deeskalation mit Rollenspielen, verschiedenen Interventionsmodelle mit Schwerpunkt auf dem helping relationship stressed by Egan, 2. Phase: Selbstverteidigungsmassnahmen, Befreiungstechnicken, 3. Phase: Instruktionen zu Zwangsmaßnahmen
Beschreibung Outcomevariablen	1. Auftreten von Vorfällen; 2. Anzahl an Verletzungen von Mitarbeitern,
Beschreibung Ergebnisse	1.+2. Signifikant weniger tätliche Angriffe mit signifikant weniger Verletzungen für das Personal

Nummer	21
Autoren	Khadivi AN, Patel RC, Atkinson AR, Levine JM
Jahr	2004
Studie	Association between Seclusion and Restraint and Patient-Related Violence
Studientyp	Prä/Post-Intervention
Dauer Baseline	12 Monate
Dauer Follow up	12 Monate
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Psychiatrisches Krankenhaus Akutstation, fürsogrliche Unterbringung
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Staff, wahrscheinlich nur Pflege
Anzahl Patienten	1,766 preintervention and 1,602 postintervention
Beschreibung Patienten	Stationär Psychiatrisch, unfreiwillige Einweisung
Beschreibung Intervention	Trainingsprogramm
Detaillierte Beschreibung der Intervention	The intervention centered on early recognition of signs of agitation among patients and early clinical intervention. All staff members had previously been trained on assault prevention measures; however, this training varied and specific training on violence prevention was not given during the study period.
Beschreibung Outcomevariablen	1. total number of episodes of seclusion and restraint 2. episodes of assault on patients and staff 3. Anzahl der behandelten Patienten und Patiententagen
Detaillierte Beschreibung Outcomevariablen	central nursing log books of the department of psychiatry. Episodes of violence against patients and staff and episodes of self-destructive behavior

	were determined from incident report files.
Beschreibung Ergebnisse	1. Signifikant weniger Zwangsmaßnahmen (310 zu 148) 2. Signifikant mehr Vorfälle von Agressivem Verhalten gegeüber dem Personal (31 zu 83) und gegenüber von Patienten (67 zu 85) 3. Die Gruppen sind vergleichbar

Nummer	22
Autoren	Lee S, Wright S, Sayer J, Parr AM, Gray R, Gournay K
Jahr	2001
Studie	Physical restraint training for nurses in English and Welsh psychiatric intensive care and regional secure units
Studientyp	Deskriptiv Retrospektiv
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Psychiatrische Intensivstation und Forensische Staionen (Secure Units)
Land	UK
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Pflegepersonal
Anzahl Teilnehmer Interventionsgruppe	338
Beschreibung Patienten	Psychiatrisch Intensiv und Forensich (PICU/RSU)
Beschreibung Intervention	Überregionale Untersuchung, in wie weit das Pflegepersonal ausgebildet ist und welche Ausbildung es bekommen hat und wo
Detaillierte Beschreibung der Intervention	Fragebogen an 63 Stationen (von Insgesamt 112 Stationen in England und Wales)
Beschreibung Outcomevariablen	1. Untersuchung welches Training stattgefunden hat 2. Dauer des Trainings 3. Inhalte des Trainings 4. Bewertung des Trainings
Beschreibung Ergebnisse	1. Die meisten Teilnehmer konnten nicht angeben welches Trainig sie bekommen haben. Am Häufigsten waren " Control & Restraint" (Broadmoor and Rampton hospital and C&R Services) und "Care and Responsibility" (Ashworth Hospital) 2. Das Training dauerte durchschnittlich 5 Tage 3. Die Inhalte siehe Tabelle Paper welche Techniken gelehrt wurden, verbale Deeskalation 50 %, restraining hold 49 %, use of three person team 47 %) 4.

Nummer	23
Autoren	Lehmann, L. S.; Padilla, M.; Clark, S.; Loucks, S.
Jahr	1983
Studie	Training personnel in the prevention and management of violent behavior. In: Hospital & community psychiatry 34 (1), S. 40–43.
Studientyp	Prä/Post-Intervention

Dauer Intervention	5 Stunden
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Veteranenkrankenhaus
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Sämtliche Angestellte mit Patientenkontakt in einem Krankenhauses
Anzahl Teilnehmer Interventionsgruppe	144
Beschreibung Intervention	Training program for the personnel of the Audie L. Murphy Memorial Veterans Hospital
Detaillierte Beschreibung der Intervention	Kurze Einführung, Vorstellung der Gründe für Aggressives Verhalten: Gewalttätige Patienten werden als ängstlich vor ihrer eigenen Feindseeligkeit betrachtet sowie als ängstlich vor einem Kontrollverlust trotz der Tatsache dass sie Gewalt als Bewältigungsstrategie für Hilflosigkeitsgefühle und für Kontrolle über andere verwenden.; Präventionsmassnahmen zur Abwendung von gewalttätigem Verhalten; Management von gewalttätigem Verhalten; Verbale Intervention, Legale Aspekte von Gewaltanwendung, Demonstration uns Übung von Selbstverteidigungstechniken sowie Haltegriffe, Rollenspiele zu verbalen und Selbstverteidigungstechniken
Beschreibung Outcomevariablen	1. Wissen zur Thematik 2. subjektives Bewältigungsvermögen
Detaillierte Beschreibung Outcomevariablen	1. prä/post MC-Test zu 10 Punkten 2. Strukturiertes Interview Formular bei tatsächlichen Vorfällen
Beschreibung Ergebnisse	1. Der MC Test zeigte einen objektiven Wissenzuwachs nach Absolvieren des Kurses 2. Trainingsteilnehmer hatten ein signifikant höheres Selbstvertrauen und subjektives Bewältigungsvermögen, Teilnehmer waren zudem signifikat besser in der Lage die auslösenden Umstände zu erfassen.

Nummer	24
Autoren	Long CG, West R, Afford M, Collins L, Dollex O
Jahr	2015
Studie	Reducing the use of seclusion in a secure service for women
Studientyp	Prä/Post-Intervention
Dauer Baseline	1 Jahr
Dauer Intervention	1h / Woche über 4 Monate
Dauer Follow up	1 Jahr
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Secure service for women
Land	UK
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Staff

Anzahl Patienten	38 (19 prä / 19 post-Intervention)
Beschreibung Patienten	Frauen, alle Forensisch oder fürsorglich untergebracht, Hauptdiagnosen: Emotionale instabile Persönlichkeitsstörung oder Schizophrenie, Die ersten 19 Patienten mit einer Liegedauer von 1 Jahr wurden mit 19 Patienten vor der Intervention verglichen. (Zuteilung auf der Basis von Alter, Diagnose, Herkunft (Krankenhaus oder Gefängnis)
Beschreibung Intervention	1. RAID (Reinforce Appropriate Implode Disruptive; Davies, 2004) milieu therapeutic approach to the management of extreme behaviour 2. Training in Relational Security (Allen, 2010) 3. Einbeziehung der Patientensicht in die Prävention und Management von aggressin und Gewalt 4. Training auf Station 5. Präventionsmassnahmen
Detaillierte Beschreibung der Intervention	1. RAID: staff training; . the use of a recovery approach to patient care; post-incident use of Behaviour Chain Analysis (Linehan, 1993); .the use of structured risk assessment tools and scenario-planning to inform risk management and Intervention (Douglas et al. 2013) and the use of a risk stage system (Long et al. 2014) 2. 1-Stündiges Einführungsprogramm für Personal und wöchentliche Besprechungen zur Kontrolle der Compliane 4.. 1-Stündiges wöchentliches Training in Deeskalations-Techniken anhand von Fallbeispielen (nicht physikalisch) 5. Präventionsmassnahmen wie Gewichte um Arousal zu senken, Sport am Wochenende
Beschreibung Outcomevariablen	1. Ereignisse für Isolationsmassnahmen 2. Vorfälle von riskantem Verhalten 3. Behavior rating scale 4. Anwesenheit bei Therapiesitzungen 5. Seclusion questionaire
Detaillierte Beschreibung Outcomevariablen	3. Bewertungssystem (0-3 Punkte) für folgende Punkte: self-harm; suicide ideation; appropriate behaviour; verbal aggression; physical aggression; property care, participation in ward/hospital programmes; compliance with drug treatment; responsibility for own behaviour; insight into disorder; insight into risk; relationship with primary nurse; and relationship with staff 5. Fragebogen an Belegschaft und Patienten über die beste mglichkeit Isolationsmassnahmen zu umgehen (training in de-escalation; timetabled BCA sessions; patient consultation about risk management plans; sensory integration treatment; increased activity sessions at weekends; and Relational Security items: increased levels of engagement with patients by staff (team) and initiatives to reduce bullying, harassment and discrimination (other patients).)
Beschreibung Ergebnisse	**1**. Signifikant weniger Seclusion (Isolationsmassnahmen) und

	signifikant weniger Zeit der Patienten in der Isolatinsmassnahme 2. Am Häufigsten war Selbstgefärdung der Grund für die Isolationsmassnahem 3. Signifikant weniger Risikoverhalten 4. Höhere Rate an Teilnahmen an Therapiesitzungen 5. Staff findet deeskalationstechnik am effektivsten, patienten finden Relational Security team initiative item am besten

Nummer	25
Autoren	Martin, K. H.
Jahr	1995
Studie	Improving staff safety through an aggression management program. In: Archives of psychiatric nursing 9 (4), S. 211–215.
Studientyp	Prä/Post-Intervention
Dauer Baseline	1 Jahr
Dauer Intervention	1 Tag Workshop, danach wöchentliches Hands-on Training für 2 Monate
Dauer Follow up	2 Jahre
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Psychiatrie einer Universitätsklinik
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Beglegschaft zweier psychiatrischer Stationen (Pflege, Ärzte, Beschäftigungstherapeuten, Sozialarbeiter, Sekretariat)
Beschreibung Patienten	Inpatient Psychiatric
Beschreibung Intervention	Aggression Management Program: Workshop
Detaillierte Beschreibung der Intervention	1) A mandatory Aggression Management Workshop, was attended by all inpatient staff, which provided both theory and practice: The morning session, primarily theory, focused on overall review of the psychiatric emergency protocol with emphasis on assessment and interventions for level I and II. Staffs' behaviors, attitudes and perceptions in dealing with aggressive and/or potentially aggressive patients were also discussed. The afternoon session offered hands-on training with emphasis on personal safety techniques, individual and team takedowns, as well as the use of seclusion and restraints, all part of level II! interventions in the psychiatric emergency protocol., 2) a video on verbal deescalation techniques, was viewed by all staff, 3) a competence assessment, through return demonstration of learned skills, was required by all staff within 2 months of the workshop, and 4) annual certification in each of the three areas was required for all staff.
Beschreibung Outcomevariablen	1) number of aggressive incidents, 2) level of aggression, 3) type of injury, 4) Number of missed work days, and 5) cost to the Department of Psychiatric Nursing as a result of injury.
Beschreibung Ergebnisse	1+2) The level of actual aggression began to drop after the

	implementation of the program, despite an increase in total number of aggressive incidents 3) The occurrence of staff injuries improved only the second year after the program development. 4) The number of injuries resulting in missed work time stayed the same over all 3 years.
Beschreibung sekundäre Ergebnisse	Schrifftliche Evaluation nach 1 Jahr zeigte eine gesteigerte Zufriedenheit und Selbstvertrauen im Management mit Aggressiven Patienten

Nummer	26
Autoren	McDonnell, Andrew
Jahr	1997
Studie	Training Care Staff to manage challenging behaviour: an evaluation of a three day training course. In: The British Journal of Development Disabilities 43 (85), S. 156–162. DOI: 10.1179/bjdd.1997.015.
Studientyp	Prä/Post-Intervention
Dauer Intervention	3 Tage
Kontrollgruppe ja/nein	nein
Land	UK
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Pflegepersonal
Anzahl Teilnehmer Interventionsgruppe	21
Beschreibung Intervention	3-tägiger Trainingskurs
Detaillierte Beschreibung der Intervention	Tag 1: Understanding the law, Ursachen für auffälliges Verhalten, Unterschiede in Gewalt und Aggression, Tag 2: Nicht-gewaltätige Methoden zum Management von auffälligem Verhalten, incl Selbstverteidigung ohne das Verdrehen von Gelenken Tag 3: Nichtgewaltätige freiheitsentziehende Massnahmen
Beschreibung Outcomevariablen	1. MC-Test mit 20 Fragen prä/post, 2. Managign Challenging Behavior Confidence Scale mit 15 Punkten prä/post 3. Restraint Role Play Test
Detaillierte Beschreibung Outcomevariablen	1. MC Fragen zum Abfragen von Wissen 2. Selbsteinschätzung zum Umgang mit aggressiven Patienten und zur Anwendung von freiheitsentziehenden Massnahmen 3. Videoanalyse der Rollenspiele durh 2 unabhänige Bewerter, Analyse anhand eines 9-Stufen Bewertungssystems
Beschreibung Ergebnisse	1. Wissenszuwachs durch die Massnahme (nicht signifikant) 2. Signifikant gesteigertes Selbstvertrauen im Umgang mit aggressivem Verhalten und mit freiheitsentziehendenMassnahmen 3. Alle Teilnehmer bestanden den Role-Play test mit mindestens 8 von 9 Stufen
Beschreibung sekundäre	Die älteren Teilnehmenr haben schlechter im Rollenspiel

Ergebnisse	abgeschlossen

Nummer	27
Autoren	McGowan, S.; Wynaden, D.; Harding, N.; Yassine, A.; Parker, J.
Jahr	1999
Studie	Staff confidence in dealing with aggressive patients. A benchmarking exercise. In: The Australian and New Zealand journal of mental health nursing 8 (3), S. 104–108.
Studientyp	(nicht randomisierte) Fall-Kontroll-Studie mit Prä/Post-Intervention
Dauer Intervention	Kontroll-Gruppe: 1-Tages-Trainingsprogramm bei Stellenantritt, alle 6 Monate 1,5 -stündiger Refresher-Kurs Interventionsgruppe: 6 Module mit insgesamt 22,5 Stunden
Dauer Follow up	6 Monate (Interventionsgruppe)
Kontrollgruppe ja/nein	ja
Charakterisierung der Kontrollgruppe	Kontroll-Krankenhaus mit bereits vorher bestehendem Aggressionsmanagement-Programm
Ort der Datenerhebung	Multizentrisch (2 Psychiatrische Intensivstationen in 2 verschiedenen Krankenhäusern)
Land	AUS
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Nursing Staff
Anzahl Teilnehmer Interventionsgruppe	ursprünglich 28, aber nur 15 haben den 2. Fragebogen ausgefüllt
Anzahl Teilnehmer Kontrollgruppe	42
Beschreibung Intervention	Kontrollgruppe: "Restraint and Manual Handling." Interventionsgruppe: Safe physical restraint module + 5 weitere Module
Detaillierte Beschreibung der Intervention	1. Kontrollgruppe: ‘Restraint and Manual Handling’ .*New staff undertake a one day training program that includes legal and ethical issues, managing challenging incidents, communicating effectively with aggressive patients, recognition and management of antecedent behaviour and physical restraint techniques including breakaway strategies. All staff undertake a one and a half-hour annual refresher training workshop. --> This explains the significantly higher confidence levels reported by staff at Graylands Hospital (Kontrollgruppe) for every item on the questionnaire when compared with Fremantle Hospital staff (Interventionsgruppe) prior to implementation of the safe physical restraint module. The safe physical restraint module was introduced at Fremantle Hospital (Interventionsgruppe) in May 1997. In addition, five other modules that cover legal and ethical issues, multicultural issues, management of aggressive behaviour, self-

	defence techniques, and management of aggression in the community form the basis for a comprehensive management of aggression program. The total hours for all six modules in the program is 22 and a half. The safe physical restraint-module is seven and half-hours in length. It is designed for health professionals working in the mental health area and includes training in defusing and debriefing of both patients and staff following a critical incident. The module teaches a structured sequential process of dealing with physical aggression and the importance of team work and role assignment during the restraint process. The module follows a strict set of guidelines that ensure standards of safety for both staff and patients are met. Trainings focuses on early recognition and management of antecedent behaviours and the empowerment of the patients to take control of their behaviour. Six monthly updates and clinical drills are conducted
Beschreibung Outcomevariablen	Messung des Selbstvertrauens (Confidence) im Umgang mit aggressivem Verhalten von Patienten
Detaillierte Beschreibung Outcomevariablen	1. Selbstbewertungsfragebogen (mit 10 Punkten) zu Selbstvertrauen vor Intervention 2. Wiederholung des Fragebogens 6 Monate nach Trainingsprogramm
Beschreibung Ergebnisse	(1) Confidence level. (how comfortable they felt working with an aggressive patient). --> Signifikant erhöht. (2) Training for handling psychological aggression. (how good their present level of training was for handling psychological aggression). --> Signifikant erhöht. (3) Ability to physically intervene. (views on their ability to intervene physically with an aggressive patient). --> Signifikant erhöht. (4) Self assurance. (how self-assured they felt in the presence of an aggressive patient). --> Signifikant erhöht. (5) Ability to intervene psychologically. (how able they are to intervene psychologically with an aggressive patient). --> Signifikant erhöht. (6) Training for handling physical aggression. (indicate their present level of training for handling physical aggression). --> Signifikant erhöht. (7) Safety. (how safe they felt around an aggressive patient). --> Signifikant erhöht. (8) Techniques for dealing with aggression. (indicate the effectiveness of techniques they knew for dealing with aggression). --> Signifikant erhöht. (9) Meeting needs. (how able they were to meet the needs of an aggressive patient). --> Signifikant erhöht. (10) Protection. (how able they were to protect themselves from aggressive patients). --> Signifikant erhöht.

Nummer	28
Autoren	Needham I.; Abderhalden C.; Meer R.; Dassen T.; Haug H. J.; Halfens R.J.G.; Fischer J.E.
Jahr	2004
Studie	The effectiveness of two Interventions in the management of patient violence in acute mental inpatient settings: report on a pilot study. In: Journal of Psychiatric and Mental Health Nursing 11, S. 595-601.
Studientyp	Prä/Post-Intervention (Prospektive nicht- randomisierte Studie)
Dauer Baseline	3 Monate
Dauer Intervention	Gesamtdauer der Studie: 10 Monate Nach 3 Monaten (= Baseline) nur Kurs "Risikovorhersage" Im 7. Monat 5- tägiger Trainingskurs zu Aggressionsmaangement Die letzten 3 Monate Risikovorhersage und Traningsprogramm parallel
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Multizentrisch (1 Städtische psychiatrische Station, 1 ländliche psychiatrische Station mit jeweils 12 Betten)
Land	CH
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Nursing Staff
Anzahl Patienten	576 Patienten
Beschreibung Patienten	576 patients (41.3 % females, mean age 38 years, range 15–88 years) accounted for 721 admissions to the two acute psychiatric wards. hospitalizations comprised 38.5 % voluntary and 61.5 % involuntary admissions, giving rise to a total of 7 732 hospitalization days. Diagnosen: schizophrenia, schizo-type and delusional disorders (38.3 %), mood (affective) disorders (15.6 %), mental and behavioural disorders due to psychoactive substance use (23.9 %), neurosis and personality disorders (14.9 %), and other psychiatric ICD-10 categories (7.3 %).
Beschreibung Intervention	1. Systematische Risikovorhersage mit BVC-R 2. Standardisiertes Trainingsprogramm zu Management von Aggressionen
Detaillierte Beschreibung der Intervention	1. Risikovorhersage mittels extended version of the Brøset Violence Checklist (BVC-R) . Einschätzung von "six patient behaviours (confused, irritable, boisterous, verbally threatening, physically threatening and attacking objects)" --> anschliessend Bewertung "of the risk for imminent violence using a slide-rule-VAS. These combined ratings produce a score between 0 (very low risk) and 12 (high risk). --> Alle Patienten wurden so bei Aufnahme und die nächsten 3 Tage (2x tgl) bewertet 2. Trainingsprogramm zu Management von Aggressionen (devised by (N.E. Oud unpublished) in the Netherlands). 5-tägiger Kurs mit 35 Einheiten " is a skilloriented, action-centred, and problem-centred educational programme incorporating

	experiential- and knowledgebased elements such as the nature and prevalence of aggression, violence and sexual harassment, the use of aggression scales, preventive measures and strategies, de-escalation techniques, post-incident care and support, ethical aspects of violence management, and safety management." Weiterer Bestandteil des Kurses: "practical 'hands-on' skills such as holding methods, breakaway techniques, and control and restraint"
Beschreibung Outcomevariablen	1. Anzahl der aggressiven Ereignisse 2. Schwere der aggressiven Ereignisse 3. Anzahl der Zwangsmaßnahmen
Detaillierte Beschreibung Outcomevariablen	1. Aggressive Ereignisse = verbal aggression, physical attacks against persons, or coercive measures. Dokumtiert mittels Staff Observation Aggression Scale (SOAS-R). The SOAS-R allows the registration of the provoking factor, the means used by the patient, the target of aggression, the consequence for the victims, and the measures to terminate aggression. 2. Zwangsmaßnahmen: recorded on a form developed on the basis of existing formats in general use in the area. Coercive measures were further categorized as: (1) coercive measures without prior aggression, and (2) coercive measures following an aggressive incident. Incidence rates were expressed as events per 100 hospitalization days (unit of analysis = occupied beds) and as days with event per ward (unit of analysis = ward). Secondary outcomes were the severity of aggressive events as measured by the SOAS-R and by a visual analogue scale.
Beschreibung Ergebnisse	1. Anzahl der aggressiven Ereignisse unverändert 2. Schwere der aggressiven Ereignisse etwa unverändert 3. Signifikante Abnahme der Zwangsmaßnahmen
Beschreibung sekundäre Ergebnisse	A 'ward effect' was detected with one ward showing a decline in attacks with unchanged incidence rates of coercion and the other ward showing the opposite. The severity of the incidents remained unchanged whilst the subjective severity declined after the training course.
Funding	This study was supported by research grant BK 361/01 of the Swiss Academy of Medical Science.
Qualitätsbemerkung	"ward effect"

Nummer	29

Autoren	Needham, I.; Abderhalden, C.; Halfens, R. J. G.; Dassen, T.; Haug, H. J.; Fischer, J. E.
Jahr	2005
Studie	The effect of a training course in aggression management on mental health nurses' perceptions of aggression. A cluster randomised controlled trial. In: International journal of nursing studies 42 (6), S. 649–655. DOI: 10.1016/j.ijnurstu.2004.10.003.
Studientyp	Randomisierte-kontrollierte Studie (Prä/Post Intervention)
Dauer Intervention	5 Tage
Dauer Follow up	90 Tage
Kontrollgruppe ja/nein	ja
Charakterisierung der Kontrollgruppe	ohne Trainingsmaßnahme
Ort der Datenerhebung	Multizentrisch
Land	CH
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Pflegepersonal auf Psychiatrische Station
Anzahl Teilnehmer Interventionsgruppe	30
Anzahl Teilnehmer Kontrollgruppe	28
Beschreibung Patienten	Stationär Psychiatrisch
Beschreibung Intervention	Trainingsprogramm im Management von Aggressionen nach Nico Oud
Beschreibung Outcomevariablen	1. Fragebogen zur sozio-biographischen Datenerhebung und Fragen zu persönlichen Erfahrungen mit aggressivem Verhalten 2. Perception of Aggression Scale (POAS-S) 3. Tolerance Scale 4. Impact of Patient Aggression on Carers Scale (IMPACTS)
Detaillierte Beschreibung Outcomevariablen	##########
Beschreibung Ergebnisse	1. Beide Versuchsgruppen sind gleichwertig. 2. +3)+4) Alle Vergleiche zwischen der Kontrollgruppe und der Interventionsgruppe sind nicht signifikant unterschiedlich. Evtl war die Nachuntersuchungszeit zu kurz.

Nummer	30

Autoren	Nijman, H. L.; Merckelbach, H. L.; Allertz, W. F.; a Campo, J. M.
Jahr	1997
Studie	Prevention of aggressive incidents on a closed psychiatric ward. In: Psychiatric services (Washington, D.C.) 48 (5), S. 694–698. DOI: 10.1176/ps.48.5.694.
Studientyp	Prä/Post-Intervention
Dauer Baseline	3 Monate
Dauer Follow up	3 Monate
Kontrollgruppe ja/nein	ja
Charakterisierung der Kontrollgruppe	Stationen ohne Intervention
Ort der Datenerhebung	Psychiatrisches Krankenhaus
Land	NL
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Staff
Anzahl Patienten	3 Stationen a 20 Betten
Beschreibung Patienten	Akute geschlossene Psychiatrische Station
Beschreibung Intervention	Managment von Patienten
Detaillierte Beschreibung der Intervention	Interventions included a protocol for talking to patients who exhibited aggressive behavior, discussing treatment goals with the patient shortly after admission, explaining why the ward’s door was locked and the exit rules, providing a schedule of staff meetings to explain staff members’ absence from the ward, and clarifying the procedure for making an appointment with the psychiatrists. R
Beschreibung Outcomevariablen	1. Messung der aggressiven Vorfälle mittels Staff Observation Aggression Scale (SOAS)
Beschreibung Ergebnisse	Kein Unterschied Signifikant weniger "Incidents of physical aggression" im Post-Interventionszeitraum auch auf den Control Wards. Wahrscheinlich wurde im Laufe der Zeit exakter durch das Personal differenziert (systematischer Fehler)

Nummer	31

Autoren	Parkes, Jon
Jahr	1996
Studie	Control and restraint training. A study of its effectiveness in a medium secure psychiatric unit. In: The Journal of Forensic Psychiatry 7 (3), S. 525–534. DOI: 10.1080/09585189608415035.
Studientyp	Prä/Post-Intervention
Dauer Baseline	18 Monate
Dauer Intervention	4 Tage
Dauer Follow up	12 Monate
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Forensische Pyachiatrie
Land	UK
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Nursing staff
Beschreibung Patienten	Psychiatrische Stataion mittlerer Sicherheit
Beschreibung Intervention	Control and Restraint (C&R) Training
Detaillierte Beschreibung der Intervention	It involved non-touch training, break-away, techniques and the use of a team of three staff to restrain a person
Beschreibung Outcomevariablen	Data consisted of information on the nature of the incident, the number of staff involved, the number of injuries occurring and the staff's feelings.
Beschreibung Ergebnisse	Es gab einen leichten nicht-signifikanten Anstieg von Verletzungen beim Personal (post training), Das Personal stufte die Vorfälle als gleich Schwierig wie vor dem Programm ein. Break away techniken wurden nicht benutzt.
Beschreibung sekundäre Ergebnisse	Am häufigsten waren Schläge gegen den Kopf des Personals 149 incidents involving restraint

Nummer	32
Autoren	Paterson, B.; Turnbull, J.; Aitken, I.
Jahr	1992
Studie	An evaluation of a training course in the short-term management of violence. In: Nurse education today 12 (5), S. 368–375.
Studientyp	Prä/Post-Intervention
Dauer Intervention	10 Tage
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Psychiatrisches Krankenhaus
Land	UK
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Nursing staff
Anzahl Teilnehmer	25

Interventionsgruppe	
Beschreibung Intervention	De-escalation Methode nach (Turnbull et al 1990)
Detaillierte Beschreibung der Intervention	Inhalte: Participants are first introduced to the theoretical issues surrounding violence and are encouraged to examine their current practice, particularly in relation to its legal basis and the safety of the client and themselves. Secondly. instruction is given in verbal and non-verbal techniques which might prevent assault and participants are afforded opportunities to practice their new sk.ills in video role-play situations. Thirdly, participants are shown a comprehensive set of physical skills which would enable them to 'escape' from situations where a client has initiated an assault by grabbing clothing, pulling hair and so on. Fourthly, participants are instructed in techniques ofcontrol and restraint. Übungen wurden durchgeführt in De-escalation role plays, Instrucion in almost 100 separate break away techniques, davon 10 Haupt-Techniken wurden gelehrt.
Beschreibung Outcomevariablen	1. Fragebogen 2. Situationsmanagement 3. Befreiung aus Haltegriffen
Detaillierte Beschreibung Outcomevariablen	1. Zu (Wissen, General health questionnaire (GHQ), Job satisfaction questionnaire ,Role conflict/ambiguity scale) 2. Video Bewertung von Rollenspielen durch unabhänige, nicht in die Weiterbildungsmassnahme involvierte Experten. Bewertung Hinsichtlich: Personalises self, Mood matching, Negotiating options, Distraction, Non-verbal communication, Use of non-provocative phrases 3. Bewertung durch Instruktoren bezüglich Effektivität, Geschwindigkeit, Technik, Sicherheit des Aggressors und des Personals
Beschreibung Ergebnisse	1. Signifikanger Wissenszuwachs, 2. Signifikant weniger Stress, 3. Höhere Job-Zufriedenheit (nicht signifikant), 4. Signifikant weniger Rollenkonflikt, 5. Signifikant bessere Fähigkeiten in Deeskalation, 5. Signifikant grössere Kompetenz bezüglich Praktischer Verteidigungstechniken
Beschreibung sekundäre Ergebnisse	Nach dem Kurs waren die Teilnehmer strukturierter und effektiver im Umgang mit schwierigen Situationen.

Nummer	33
Autoren	Phillips, Douglas; Rudestam, Kjell Erik
Jahr	1995
Studie	Effect of Nonviolent Self-Defense Training on Male Psychiatric taff Members' Aggression and Fear. In: In: PSYCHIATR SERV 46 (2), S. 164-168.
Studientyp	Randomisierte Fall-Kontroll-Studie
Dauer Intervention	1. Gruppe: Didaktisches Training in 2 Einheiten: Gesamtdauer 4 Stunden und 20 Min 2. Gruppe: Didaktisches und Physical skills Training in 2 Einheiten: Gesamtdauer 4h und 20 min
Dauer Follow up	2 Wochen

Kontrollgruppe ja/nein	ja
Charakterisierung der Kontrollgruppe	Three groups of male staff: 1. didactic training 2. didactic and physical skills training 3. no training in the nonviolent self-defense skills (= Kontrollgruppe)
Ort der Datenerhebung	Multizentrisch (2 Psychiatrische Krankenhäuser)
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Male psychiatric staff members Three groups of male staff: 1. didactic training 2. didactic and physical skills training 3. no training in the nonviolent self-defense skills
Anzahl Teilnehmer Interventionsgruppe	Gruppe 1: 8 (Didaktisches Training) Gruppe 2: 8 (Didaktisches Training und Physikal skills Training)
Anzahl Teilnehmer Kontrollgruppe	8
Beschreibung Intervention	Three groups of male staff received didactic training, didactic and physical skills training, or no training in the nonviolent self-defense skills of protective profile, repel, and push-off, as well as in evasive movement.
Detaillierte Beschreibung der Intervention	Am Anfang der ersten Einheit simulierter Angriff als Rollenspiel für alle Teilnehmer, wurde per Video aufgezeichnet, anschliessend self-report questionnaire. The role-plays were videotaped and later reviewed by two judges who had received two hours of training in use of the assessment instruments and who were teaching violence management in other settings using the skills employed in this study. The judges were trained to rate levels of physical competence and levels of behaviorally expressed aggression and fear. Group 1 met with the first author for presentation and discussion of the following didactic material: nature and dynamics of violence, including psychoanalytic and social learning theories; the effects of nonverbal communications; warning signs of violence; intervention strategies; and legal and institutional issues. Group 2 followed an identical course, with the addition of training in the core physical skills of protective profile, repel, and push-off to evasion. The concepts of nonviolent self-defense and stress inoculation training were explained. The crucial factors of interpersonal distance and threat perception were discussed and illustrated with the protective profile. The protective profile is an upright posture with the knees very slightly bent and with the body at an oblique angle to the attacker. The hands are held crossed in front of the chest, held at the sides, or held up in front ofthe body. After training, subjects engaged in the same role-play as before training. The role-play was videotaped. The judges reevaluated the subjects for achieved physical competence using the evaluation of physical skill

	instrument. The Buss-Durkee Inventory was readministered. The subjects then participated in another videotaped role-play and were evaluated for physical competence and behaviorally expressed aggression and fear. After the role-play, subjects completed the self-report questionnaire.
Beschreibung Outcomevariablen	1. Level der Aggression und Angst des Personals gegenüber aggressiven Patienten (1. Bewertung durch Jury, 2. Eigenbewertung) 2. Anzahl der Angriffe 3. Episoden der Zwangsmaßnahmen 4. Verletzungen Mitarbeiter
Detaillierte Beschreibung Outcomevariablen	Messung der Effektivität mithilfe von: 1. Buss-Durkee Hostility-Guilt inventory (Messung von Feindseligkeit und Schuldgefühlen) # a demographic questionnaire # an instrument used for evaluation of level of physical skill (clinical experience and sports training) # a scale evaluating aggression and fear # a self-report questionnaire # a follow-up questionnaire about posttraining assaults.
Beschreibung Ergebnisse	1. Buss-Durkee measures:. Keine signifikanten Unterschiede zwischen den Gruppen 2 Judges' ratings: Two judges rated three measures from the videotapes. The three measures were physical competency, fear, and aggression. # competency: From pre- to posttraining, group 2 improved in competency by 32 percent, while group 1 improved by 2 percent and group 3 decreased by 2 percent. # fear: group 2 reduced their fear by 38 percent, while group 1 subjects reduced their fear by 5 percent and group 3 by 3 percent. # aggression: Subjects in group 2 reduced their aggression by 50 percent, while group 1 subjects reduced their aggression by 1 percent and group 3 by 5 percent. 3. Self-ratings. The subjects rated themselves pre- and posttraining on the variables of the value of nonaggressive responses and outcomes and on fear and aggression. # The three groups differed significantly from each other in posttraining self-ratings of the value of nonaggressive response. group 2 was significantly different from those for group 1 and group 3 at the .05 level but that the mean ratings for group 1 and group 3 were not different from one another. # No significant differences were found between the groups in the degree of change in self-ratings of fear or aggression; that is, the three groups experienced similar levels of change from pretraining to posttraining. 4. Follow-up measures. Follow-up questionnaires were solicited from the subjects two weeks after the final training exposure. Group 1: 18 assaultive encounters, resulting in ten episodes of restraint and three minor staff injuries.

	Group 2: 1 3 assaults, resulting in five episodes of restraint and no injuries. Group 3: 1 5 assaults, leading to eight episodes of restraint and one staff injury. --> Gruppe 2 involved in 23 percent fewer assaults than those who received only didactic training and 20 percent fewer assaults than the control group. They reported no injuries and 50 percent fewer episodes of restraint than the didactic group and 30 percent fewer than the control group.
Beschreibung sekundäre Ergebnisse	Relationships between physical competency and other variables. The judges' ratings of change in physical competency were significantly correlated with judged change in fear (r=.77, p<.OOl) and in aggression (r= .83, p < .001). Subjects with increased physical competency were judged to have had reductions in fear and aggression. Judged change in physical competency was also significantly correlated with self-reports of value of a nonaggressive response (r = .46, p <.01), indicating that increased physical competency was accompanied by increased belief in the value of a nonaggressive response. Finally, judged change in physical competency was not significantly melated to self-reports of fear or aggression.

Nummer	34
Autoren	Shah, A.; De, Tamal
Jahr	1998
Studie	The effect of an educational intervention package about aggressive behaviour directed at the nursing staff on a continuing care psychogeriatric ward. In: International journal of geriatric psychiatry 13 (1), S. 35–40.
Studientyp	Prä/Post-Intervention
Dauer Baseline	6 Wochen
Dauer Intervention	2x45 Min/Woche über 6 Wochen
Dauer Follow up	6 Wochen
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Gerontopsychiatrie
Land	UK
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Nursing staff
Anzahl Teilnehmer Interventionsgruppe	15
Anzahl Patienten	26
Beschreibung Patienten	26 Patienten mit Hohem RAGE und SOAS Score Patientengut: Geriatrische Psychiatrische Station, Only patients with persistently severe behavioural disturbance, despite assessment and treatment on the acute admission ward, were admitted to the continuing care ward
Beschreibung	Educational package by consultant psychiatrist

Intervention	
Detaillierte Beschreibung der Intervention	Inhalte: support, opportunity for the nursing sta€ to ventilate their feelings, sharing of knowledge about aggressive behaviour in the elderly based on an up-to-date literature review. Themen: The literature review included discussion on the definitions, prevalences, precipitants, outcomes, clinical correlates, social correlates, demographic correlates, biological correlates, timing, site and management of aggressive behaviour. The influence of sta•ng factors, including sta€ff training,and the sensitive pharmacokinetics and pharmacodynamics in the elderly were also discussed.
Beschreibung Outcomevariablen	Messung aggressiven Verhaltens mittels RAGE and SOAS scales.
Detaillierte Beschreibung Outcomevariablen	The RAGE scale (Patel and Hope, 1992a) measures the quantity and severity of aggressive behaviour, and gives a score on a three-point scale (0±3) for each of the 21 items and a total score. The RAGE scale was completed once a week for each patient by the nursing manager of the ward for the entire study duration of 18 weeks. The original RAGE scale was designed to measure aggressive behaviour for the preceding 3 days. The Sta€ Observation Aggression Scale (SOAS) (Palmstierna and Wistedt, 1987) measures individual episodes of aggressive behaviour and gives a total score (0±12) and subscores for the means (the method of aggression used), aims (the actual target of the aggression) and results (the outcome of aggression) of an individual episode of aggressive behaviour on a four-point scale (0±4). Individual nurses, across all shifts, completed the SOAS scale every time they observed an individual episode of aggressive behaviour.
Beschreibung Ergebnisse	RAGE UND SOAS -Score waren signifikant abnehmend durch die Bildungsmaßnahme
Beschreibung sekundäre Ergebnisse	RAGE und SOAS korrelieren gut

Nummer	35
Autoren	Singh NN, Lancioni GE, Winton ASW, Singh AN, Adkins AD, Singh J
Jahr	2008
Studie	Mindful Staff Can Reduce the Use of Physical Restraintswhen Providing Care to Individuals with intellecutal Disabilities
Studientyp	Prä/Post-Intervention
Dauer Baseline	3-5Wochen
Dauer Intervention	2h/Woche über 12 Wochen (=24h)
Dauer Follow up	22-24 Wochen
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Wohnheim für Geistig Behinderte
Land	US
Charakterisierung der Zielgruppe der	Staff

Trainingsmaßnahme	
Anzahl Teilnehmer Interventionsgruppe	23
Anzahl Patienten	20
Beschreibung Patienten	Geistige Retardierung
Beschreibung Intervention	Mindfulness training, Anweisunge bezüglich Umgang mit Patientengewalt blieb unverändert
Detaillierte Beschreibung der Intervention	All received basic training in behaviour management based on the Miller (1997) text. This was provided 2 years before the mindfulness training and was similar to that reported by Singh et al. (2006a) The staff was taught meditation methods and given exercises to enhance mindfulness.
Beschreibung Outcomevariablen	1. Anzahl Ereignisse 2. Beobachtungen von Verbalen Ereignissen 3. Physical Restraints 4. Verschreibung Medikamente gegen aggressives Verhalten 5. Verletzungen des Personals 6. Verletzungen der Patienten
Detaillierte Beschreibung Outcomevariablen	1. Eine Episode von physikalischer (gegen Sachen oder Personen) oder verbaler Aggression ist ein Ereignis 2. Beobachtungen von verbalem Austausch der zu physikalischer Gewalt führen konnte mit und ohne Einschreiten des Personals 3. kurze Physikalische Restraints ohne mechanische restraints
Beschreibung Ergebnisse	systematic decreases in incidents, verbal redirections and injuries to staff and peers and an increase in observations. The use of restraints and Stat medications decreased during mindfulness training and more substantially (to almost zero levels) during mindfulness practice.

Nummer	36
Autoren	Sjöström, N.; Eder, D. N.; Malm, U.; Beskow, J.
Jahr	2001
Studie	Violence and its prediction at a psychiatric hospital. In: European psychiatry : the journal of the Association of European Psychiatrists 16 (8), S. 459–465.
Studientyp	Prä/Post-Intervention
Dauer Baseline	6 Wochen
Dauer Intervention	35h während 2 Monaten
Dauer Follow up	6 Wochen
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Psychiatrische Universitätsklinik Göteborg
Land	S
Charakterisierung der	Nursing staff

Zielgruppe der Trainingsmaßnahme	
Anzahl Teilnehmer Interventionsgruppe	185/144 (prä/post)
Anzahl Patienten	211/175 (prä/post)
Beschreibung Patienten	Stationäre psychiatrische Patienten
Beschreibung Intervention	35-Stündiger Trainingskurs auf verschiedenen Ebenen
Detaillierte Beschreibung der Intervention	Improve staff competence,understand the aggressive process and how aggression arises, be able to predict aggressive events and dangerous situations, be able to defend oneself with psychological and physical techniques and routinely, follow up assaults to gain experience.
Beschreibung Outcomevariablen	1. SDAS - Scale 2. SOAS-Scale 3. Erfassung der Krankheitstage des Personals
Detaillierte Beschreibung Outcomevariablen	Social Dysfunction Aggression Scale (SDAS) was used to report and assess aggressive behaviour over time, and the Staff Observation Aggression Scale (SOAS) to report and assess single aggressive incidents
Beschreibung Ergebnisse	1+2 Es gab keine signifikante Reduktion in aggressiven Vorfällen 3. Die Krankheitstage waren unverändert

Nummer	37
Autoren	Smoot, S. L.; Gonzales, J. L.
Jahr	1995
Studie	Cost-effective communication skills training for state hospital employees. In: Psychiatric services (Washington, D.C.) 46 (8), S. 819–822. DOI: 10.1176/ps.46.8.819.
Studientyp	Prä/Post-Intervention
Dauer Baseline	6 Monate
Dauer Intervention	8h/Woche für 4 Wochen (Insgesamt 32h)
Dauer Follow up	6 Monate
Kontrollgruppe ja/nein	ja
Charakterisierung der Kontrollgruppe	Zusammenstellung einer Gruppe ohne Training, Annähernd gleiche Bettenzahl (45 statt 43)
Ort der Datenerhebung	Psychiatrische Klinik eines Regionalkrankenhauses in Atlanta
Land	US
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Direct care staff
Anzahl Teilnehmer Interventionsgruppe	35
Anzahl Teilnehmer Kontrollgruppe	37

Beschreibung Patienten	Akut psychatrisch Stationär, Rückfall innerhalb eines Jahres
Beschreibung Intervention	32-stündiges :specific empathy-based human resources program.
Detaillierte Beschreibung der Intervention	Hauptlernziel: Akkurate Empathie erlernen in dem man die Bedeutung der Botschaft zurück auf den Sprecher gibt. emotional components of interpersonal communication, Körpersprache, Ablauf: Theoretischer überblick, Videos, Rollenspiele, Deeksalationskommunikation
Beschreibung Outcomevariablen	1. Erfassung von Daten der Teilnehmer, 2. Maslach Burnout Inventory (13) 3. Ward Atmosphere Scale 4. Kostenanalyse
Detaillierte Beschreibung Outcomevariablen	Kostenanalyse: 1 Stunde Arbeitsausfall: $13; Untersuchung einer Patientenbeschwerden: $615; Kosten eine Registered Nurse zu ersetzen: $3255 (Einstellungs- und Einarbeitungskosten);
Beschreibung Ergebnisse	-30 % Restraints and Seclusion, bessere Kosteneffizienz (-52 %) Ersparnis von 62000$!, weniger Staff-Turnover (-63,6 %), weniger Fehlzeiten (-73 %), Weniger Patientenbeschwerden (-66 %),

Nummer	38
Autoren	St. Thomas Psychiatric Hospital Ontario, Canada
Jahr	1976
Studie	A program for the prevention and management of disturbed behavior. In: Hospital & community psychiatry 27 (10), S. 724–727.
Studientyp	Prä/Post-Intervention
Dauer Baseline	1 Jahr
Dauer Intervention	5x2h Training
Dauer Follow up	1 Jahr
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Psychiatrisches Krankenhaus
Land	CAN
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Gesamte Belegschaft (klinisch und nicht-klinisch)
Beschreibung Patienten	Akutes Psychiatrisches Krankenhaus
Beschreibung Intervention	Theoretischer Vortag mit Handbuch und Video und praktische Übung von Befreiungsgriffen
Detaillierte Beschreibung der Intervention	Video: A 45-minute, color, audiovisual tape mit Schritt zu Schritt Anleitungen I)are(l a workbook to be used in the teaching prograiii. ‘I’lic First part of the workbook identifies various behaviors that will predictahl lead to aggressive behavior an(l UletlB)(IS of intervention that inight prevent inappropriate behavior from occurring. The second Part of the workbook describes and illustrates methods of physical intervention if disturbed behavior occurs.2. teaching appropriate physical intervention for those situations that were not predictable and preventable and hat occurred spontaneously, Emphasis

	was placed on intervening physically only when no other methods were effective and on using methods that would not injure either the staff or the patient. he movements are part of the Korean style of karate,
Beschreibung Outcomevariablen	number of incidents of disturbed behavior, number of patient injuries, and number of staff injuries and manhours lost from work.
Beschreibung Ergebnisse	1. Anzahl der Ereignisse ging zurück (-9 % 222 zu 201), 2. Weniger Verletzte Patienten (-12 %, 415zu365), 3. Die Anzahl verletzter Mitarbeiter ging zurück (-10.4 %, 87zu78), Die Abwesenheitszeit ging zurück (-31 %, 15128h zu 10444h)

Nummer	39
Autoren	Testad I, Aasland AM, Aarsland D
Jahr	2005
Studie	The effect of staff training n the use of restraint in a single-blind randomised controlled trial
Studientyp	Randomisierte-kontrollierte single Blind Studie
Dauer Baseline	(min. 1 Woche)
Dauer Intervention	1 Tag + 1h/Monat über 6 Monate
Dauer Follow up	(min. 1 Woche)
Kontrollgruppe ja/nein	ja
Charakterisierung der Kontrollgruppe	gleiches Patientengut, gleiche grösse
Ort der Datenerhebung	4 Pflegeheime
Land	N
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Pflegepersonal
Anzahl Teilnehmer Interventionsgruppe	14
Anzahl Teilnehmer Kontrollgruppe	22
Anzahl Patienten	151 (55 Intervention 96 Kontrolle)
Beschreibung Patienten	Geriatrische Patienten mit Demenu
Beschreibung Intervention	The content of the educational program focused on the decision making process in the use of restraint and alternatives to restraint consistent with professional practice and quality care.
Detaillierte Beschreibung der Intervention	A six-hour seminar focusing on dementia, aggression, problem behaviour, decision making process and alternatives towards use of restraint was presented to the entire staff.
Beschreibung Outcomevariablen	The primary outcome measures were number of restraints per patient in the nursing homes in one week and agitation as measured with the Brief

	Agitation Rating Scale (BARS). Demographic and clinical information über a standardised interview of the nurse,
Beschreibung Ergebnisse	1. Die beiden Vergleichsgruppen sind gleichwertig. 2. Die Anzahl der Einsätze von Fixierungsmaßnahmen ging signifikant zurück (-54 % in Interventionsgruppe; -18 % in der Kontrollgruppe) 3. Das Level der Aggressivität war gleichbleibend bzw leicht ansteigend

Nummer	40
Autoren	Ward A, Keeley S, Warr J
Jahr	2012
Studie	Physical interventions training and organisational management in mental health: an integrated approach to promote patient safety
Studientyp	Prä/Post-Intervention
Dauer Baseline	3 Monate/ 1 Jahr
Dauer Intervention	5 Tage
Dauer Follow up	3 Monate/1Jahr
Kontrollgruppe ja/nein	nein
Ort der Datenerhebung	Mental health care trust
Land	UK
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Staff
Beschreibung Patienten	Akut Psychiatrisch Stationär und Ambulant
Beschreibung Intervention	Physical Intervention Training Programme
Detaillierte Beschreibung der Intervention	Seven step model for promoting patient safety (National Patient Safety Agency, 2008) Inhalte: Kontrolle über einzelner Körperteile, Häusliche Gewalt, Bericht von Vorfällen, Legale Aspekte, Restraints im Stuhl und Sitzsack, Seclusion, Deeskalationstechniken, Rollenspiele
Beschreibung Outcomevariablen	1. Anzahl der Schwerwiegenden Vorfälle 2. Anzahl an Vorfällen 3. Verletzungen der Mitarbeiter
Detaillierte Beschreibung Outcomevariablen	1. Trust routinely collects ‘serious incident’ data
Beschreibung Ergebnisse	1. Reduction in the number of reported situations where physical restraint was required 2. dramatic reduction across the in-patient wards in the number of recorded incidents where aggressive behaviour had required the team to consider the possible use of restraint to contain a situation; for example there were 134 incidents in the three months following the programme compared with 261 in the corresponding period of the previous year.

	3. Angriffe aufs Personal halbiert (41 post vs 75 prä)

Nummer	41
Autoren	Whittington, R.; Wykes, T.
Jahr	1996
Studie	An evaluation of staff training in psychological techniques for the management of patient aggression. In: Journal of clinical nursing 5 (4), S. 257–261.
Studientyp	Prä/Post-Intervention
Dauer Baseline	28 Tage
Dauer Intervention	1 Tag (7h)
Dauer Follow up	28 Tage
Kontrollgruppe ja/nein	ja
Charakterisierung der Kontrollgruppe	Interventionsgruppe und Kontrollgruppe wurden je nach Dienstplan von der Stationsleitung bestimmt
Ort der Datenerhebung	Psychiatrisches Krankenhaus
Land	UK
Charakterisierung der Zielgruppe der Trainingsmaßnahme	Nurse
Anzahl Teilnehmer Interventionsgruppe	47
Anzahl Teilnehmer Kontrollgruppe	108
Beschreibung Patienten	Akutes Psychiatrisches Krankenhaus
Beschreibung Intervention	Trainingspaket (Wittington & Wykes, 1994), leading cognitive stress theory Lazarus & Folkmann 1984
Detaillierte Beschreibung der Intervention	1. Teil: Prävention von aufkeimender Gewalt 2. Verarbeitung der psychologischen Folgen von Angriffen Rollenspiele über Gewalttätige Situationen und Deeskalationstechniken, keine Physikalischen Techniken.
Beschreibung Outcomevariablen	1. Gewalttätige Angriffe auf das Personal
Detaillierte Beschreibung Outcomevariablen	Als Gewalttätiger Angriff war jeder physikalisch-aggressive Kontakt eines Patienten zu einer Pflegekraft unabhängig von der Schwere
Beschreibung Ergebnisse	1. Anzahl der Vorfälle war -31 % signifikant weniger (58 zu 40 Vorfällen)
Beschreibung sekundäre Ergebnisse	vor der Trainingsmaßnahme wurden 22 % der Interventionsgruppe und nur 13 % der Kontrollgruppe Opfer von gewalttätigen Vorfällen. - d.h. Gruppen sind nur bedingt vergleichbar

Gewalt gegen Angehörige

Studien, die Prädiktoren beschreiben:

Year NAME **COUNTRY** population (N=) *method*	**predictors of violence [235] against family caregivers**		
	perpetrator	**victim**	**interaction**
S **2017 LABRUM** **USA** persons who report having an adult relative with PD (N=243) *Sekundäranalyse!* ➔ Mit anderen Studien und v.a der Hauptstudie ergänzen!	Financial abuse: … have used illegal drugs in the past 6 months	Physical abuse: … greater levels of limit-setting practices towards relatives with PD Financial abuse: … representative payees for relatives with PD; greater levels of limit-setting practices towards relatives with PD Psychological abuse: … more frequent financial assistance; greater levels of limit-setting practices towards relatives with PD	Physical abuse: … co-resided with relatives with PD Psychological abuse: .. co-resided with relatives with PD
S **2016 VARGHESE** **INDIA** caregivers of patients with severe mental illness (N= 100/63) *cross sectional study*	- mere sight of medicines (30) - perceived hostility (20) - lack of sleep (10) -hearing loud noise (10) - not able to meet sexual needs (5)	Not fulfilling patients demands: - not giving money for consumption alcohol (10) - not allowing to smoke (10) - not allowing to go out at midnight (2)	Non-adherence to caregiver instructions**:** - refusal to take medicines (40) - refusal to

		<u>Other responses obtained:</u> - talking to others regarding patient's illness (30) - listening or talking to the patient (15)	do household chores (20) - refusal to get up in morning (5)
S **2016 KAGEYAMA** **JAPAN** parents of patients with schizophrenia (N=400) *questionnaire*	… patients who were female, were not competitively employed, were hospitalized three or more times since the onset of the illness, did not use rehabilitation services, and had fewer days of talking to others per month.	… 2/3 were mothers, primary caregivers, and most lived with the patient; have a lower household income.	… parents who experienced violence were more likely to have higher hostility and criticism scores on the EE measures and to manage the patient's money.
S **2016 KIVISTO** **USA** patients (SMI) and a nominated informant who best knew what was going on in his or her life: 47 % family and 24 % friends (N=1136) *Interview with both and records*	**perpetrator:** … female gender (family violence in general, as well as intime partner violence (IPV) specifically; … highest during the first 10 weeks following discharge		
S **2015 KONTIO** **FINLAND** focus groups including relatives (N=8) *qualitative design*: *focus groups interviews*	**perpetrator:** *"The relative described examples of how psychiatric symptoms, such as serious psychotic hallucinations, restlessness, suspiciousness, and fear, affected patients' violent behavior or were signals before a violent episode. "* *"Differences in patients' daily routines, […] might also indicate imminent violence."*		

	"Decline of the patients' mental health" *"Although the patients trusted the relative, sometimes the relatives felt that the patient was not him- or herself and was capable of doing anything against them."* Patienten erhalten eine nicht-gewalttätige Fassade nach außen hin aufrecht. Zuhause spielt sich dann das Gegenteil ab: *„My husband would not have behaved that way in hospital, threatening and aggressive as he did at home at his worst. "* *"He was able to behave very nicely at the doctors' so the doctor only prescribed sleeping pills…"* *"Idle days caused patients frustration and could contribute to violent behavior (on the wards)"*		
S **2015 KAGEYAMA** **JAPAN** caregivers of patients with schizophrenia (N=302) *mail survey questionnaires*		Physical violence: … main targets were mothers, fathers, and younger sisters.	Physical violence: … fathers and older brothers in lifetime were targeted more by male patients.
S **2014 ONWUMERE** **UK** caregivers of patients with psychosis (N= 72) *RCT*	… younger, male, single being an inpatient at the time of recruitment into the study	… hostility towards the patient; … low self-esteem; … being on its own caring for a patient	
S **2014 HSU** **TAIWAN** patients with schizophrenia and their parent (N=14 dyads) *qualitative study design: phenomenology, individual in-depth interviews*	… psychotic symptoms and impulse control appeared to be important factors of the violent behavior: *"Some parents felt that in some cases,*	*"Some patients complained that parents distrusted or rejected them, lacked flexibility and were stubborn."*	*"Repetitive violent episodes and tension made parents and patients feel uncontrollabl e, with a loss*

	violence was the weapon of choice for the purpose of retaking supremacy when making decisions." *"The parents felt that the patient often tried to compensate for their unmet needs and perceived lack of power by using violence."* … emotional stress and fluctuation (precursors and causes of catalysts of violence) … result of an irritable mood, frequent emotional or behavioral overreactions or intense mood changes.		*of self-control, and even feeling powerless to stop after a violence episode or a threat of violence."* … ineffective communication; monologue was reported, they did not dialogue. *"Most patients and parents agree that a combination of psychodynamic and situational factors plays a role in precipitation violence and aggression."*
S RAVEENDRANATHAN 2012 INDIA 100 family members of inpatients (focus on caregiver) (N= 100) *interview*	… in 70 %, a family member was the target of the violence; **…** 78 % history of violence in the previous month; … about 70 % of incidents were preceded by a clear threat made by the patient, which comprised verbal threats (72 %) and physical threats (28 %) <u>Behavior 1 - day prior to violent incident:</u>		<u>Perceived cause of violence:</u> - prevented from leaving the ward 43 (57 %) - patient's resistance to treatment 4

	- irritable 50 (67 %) - irritable to family member 4 (5 %) - irritable and suspicious 6 (8 %) - quiet 15 (20 %) Behavior 2 - hours prior to violent incident: - irritable 57 (76 %) - irritable to family member 2 (3 %) - irritable and suspicious 4 (5 %) - quiet 12 (16 %) Behavior just before the violent incident: - irritable 57 (76 %) - irritable to family member 2 (3 %) - irritable and suspicious 4 (5 %) - quiet 12 (16 %)		(5 %) - arguments with family member 10 (13 %) - attempts during family member's assistance with activities of daily living 2 (3 %) - family member's report to ward staff regarding patient's violent behavior 6 (8 %) - suspicious thoughts 5 (7 %) (perpetrator) - do not know 5 (7 %)
D **2012 MORGAN** **USA** patients with dementia and caregivers (N=171) *longitudinal study design* ➔ part of a longitudinal study, ok?!	**aggression**: defined as any physical or verbal behavior that has the effect of harming or repelling others and includes behaviors such as hitting, kicking, and verbal threats. … worst pain over 4 weeks … the Relationship between depression and the time to aggression onset appeared to be mediated by pain…; … both baseline	**aggression or rather time to onset of aggression:** Risk factors: … higher levels of baseline caregiver burden … and caregiver burden, whereas the relationship between baseline dementia severity and the time to aggression onset appeared partially	**aggression:** Risk factors: … decline in mutuality over time *… Schaubild direkte und indirekte Beziehungen zwischen psychosoziale n Faktoren*

	physical agitation and change in physical agitation significantly predicted the time to aggression onset; … to lesser extent change in nonaggressive physical agitation (p<0,1)	mediated by caregiver burden, (although the direct relationship between dementia severity and time to aggression onset remained marginally significant; … the relationship between baseline nonaggressive physical agitation and time to aggression onset appeared mediated by caregiver burden (p<0,001) and…	*und Aggression und caregiver burden*
D **2010 BALL** **USA** Patients with dementia and their caregivers (N= 171) *part of a larger study*	**changes in mutuality over time:** … increases (ie, improvement) in total mutuality over 4-month periods were significantly associated with increased number and frequency of pleasant events and decreased caregiver burden (p< 0,0001) and patient aggression (p< 0,04) over the same 4-month periods.		
D **2010 COOPER** **UK** family dementia carers (N= 220) *part of a larger cross-sectional study* *EINSCHLUSS?*	**abusive behavior:** **perpetrator:** … male gender, non-white ethnicity, more ADL impairments **victim:** …using dysfunctional coping strategies, finding their current and past relationship with CR less rewarding. **interaction:** "Those who experienced more abuse were also more likely to report acting abusively towards the CR."		
S **2009 LOUGHLAND** **AUSTRALIA** carer relatives of people with psychosis (N= 106)	**aggression:** … the moderate/severe aggression group were rated as having	**abusive behavior:** … using more dysfunctional coping strategies; … experiencing the	**abusive behavior:** … those who experienced more abuse

questionnaire	greater affective (p<0,045), antisocial (p<0,001), negative (p<0,001) and psychotic (p<0,007) symptoms, compared with the none/mild aggression subgroup.	relationship less rewarding	were also more likely to report acting abusively towards the care recipient; … carers reported finding their current and past relationship with the CR less rewarding; cares abusive behavior was associated with the carer reporting fewer current rewards from their dyadic relation ship/ a greater deterioration in their relationship
S **2008 CHAN** **CANADA** caregivers (N= 61) and their relatives with schizophrenia (N= 51) *survey* *kontrollieren!*	**intensity of threat/control-override symptoms:** … significant factor that contributed to the incidence of <u>physical assault</u> against caregivers and to the incidence of <u>psychological aggression</u> against caregivers **caregivers' critical comments:** … significant factor that contributed to the incidence of <u>psychological aggression</u> against caregivers		

	PLUS: GUTE SCHAUBILDER; EVTL HILFREICH: FIGURE 1+2
S **2005 ELLBOGEN** **USA** persons with severe mental illness (SMI) (N= 245) *Interviews for a randomized study* *(The effectiveness of outpatient commitment for persons with SMI)*	**family violence** **perpetrator:** … substance abuse (bivariate association p<0,04, multivariate analysis p<0,009), … history of violence (multi.a. p<0,05) **interaction:** … family representative Payee ship (FRP) (bivariate association p<0,05, multi. a p<0,04), high family contact (multi.a. p<0,05) … individuals in the "FRP + High Family Contact" Group were over four times more likely to indicate family violence relative to the comparison group (p<0,003).
S **2004 JOYAL** **CANADA** men with schizophrenia (N= 58) and schizoaffective psychosis (N= 4) *interviews*	**homicide:** … 60 % followed delusions and/or hallucinations directly related to them. **interaction:** … poor access to, or insufficient time in, psychiatric hospitals … simple social conditions: because patients often live with their parents, parents are likely to be "victim of convenience" or to be in a "zone of danger" when something goes awry. … mothers may press their sons or daughters to take their medications, frustrate their impulses to do something, or simply be in the wrong place at the wrong time. … demanded money for cigarettes, his mother refused
S **2003 WEIZMANN-HENELIUS** **FINLAND** violent female offenders (N= 61) *semi-structured interview*	**perpetrator:** <u>Motive/ Circumstance Close (%) Acquaintance (%) Stranger (%)</u> Quarrel while drinking alcohol 18,9 % 26,9 % 33,3 % Deep conflicts in relation 8,1 % 0,0 % 0,0 % Defense in violent situation 10,8 % 3,8 % 0,0 % Long-term psychological abuse 10,8 % 0,0 % 0,0 % Solving some other problem 13,5 % 11,5 % 22,2 %

	Mental health problems 13,5 % 3,8 % 16,7 % <u>Women in the close-group were/had</u>**…** usually married,-children, a higher degree of education, more often employed <u>a personality disorder</u> (N= 24) paranoid 12,5 %, histrionic 12,5 %, narcissistic 12,5 %, borderline 20,8 % antisocial 25,0 % <u>Homicide:</u> Significantly more offenders with a dual diagnosis (34 %) than offenders without an antisocial personality disorder (APD) had an argument or a fight not related to psychotic symptoms prior to the homicidal act. … in each case of altercation, the offender had used alcohol, often with the victim
S **2003 ROBBINS** **USA** patients in acute psychiatric wards (men N= 667, women N= 469) *part of the "MacArthur Violence Risk AssessmentStudy"(Steadman et al, 1998),* *interviews after discharge*	 **perpetrator:** <u>Gender</u> … violent acts by women were less likely to have been preceded by alcohol or drug consumption and more likely to occur while psychiatric medications were being taken; … men were more likely to have a co-occurring substance abuse diagnosis (52,2 %) than were women (34,0 %). <u>Co-occurring substance abuse diagnosis</u> … patients were usually more likely to be violent. These findings suggest that the effect of gender on violence is in part explained by the increased likelihood of males to possess co-occurring abuse substance disorders, compared to females.
S **2001 DORE** **NEW ZEALAND** caregivers of patients with bipolar disorder (N= 41) *face-to-face interviews*	 **violence:** … the patient was experienced as more irritable when unwell (80 %) and this frequently led to arguments that did not occur other times; … episodes of mania and hypomania; … patient was unwell
S **1997 VADDADI** **AUSTRALIA** patients and their relatives (N= 101)	 **perpetrator:** … patients with schizophrenia or schizoaffective disorder were more likely to lose their temper or hit or strike their carer, and were significantly more likely to cause a serious injury to their

<table>
<tr><td colspan="1">semi-structured
interview</td><td colspan="3">carer
<u>Overall level of abuse:</u>
… schizophrenic and bipolar psychosis patient sample > depressed and other non-psychotic sample
… heavy consumption of alcohol increases the probability of the carer reporting having been struck or hit by the patient
… use of cannabis associated with the most aspects of abuse
… younger age
… pre-illness-episode relationship</td></tr>
<tr><td>S
1997 TARDIFF
USA
psychiatric patients after hospital discharge
(N= 430)
prospective study, interview about violence before admission, via telefone: asking about violence after discharge</td><td colspan="3">
history of violence before admission:
… 9x more likely to be violent in the two weeks after discharge;
… for 69,2 % of those patients, the target of past violence was the same person.
axis II disorder; personality disorder:
… 4x more likely to be violent
borderline or antisocial personality disorders:
… 4x more likely to be violent
other types:
… 2,3x more likely to be violent</td></tr>
<tr><td>?
1994 ASNIS
USA
outpatients
(N= 517)
survey
Einschluss ?</td><td colspan="3">
SCL-90-R subscales/ symptom checklist-90

no homicidal behavior: (403)
- obsessive-compulsive
- depression
- anxiety
homicidal ideation: (92)
- depression
- interpersonal sensitivity
- psychoticism
homicide attempts: (22)
- interpersonal sensitivity
- hostility
- paranoid ideation</td></tr>
<tr><td>D
1990 HAMEL
CANADA
caregivers and care receivers with</td><td>
aggressive behavior:
… premorbid aggressive behaviors were reported for only</td><td>
aggressive behavior:
… the situation most often found to elicit patient aggression</td><td>
aggressive behavior:
… whereas the typical</td></tr>
</table>

dementia (N= 213) *interviews*	9,6 % of the patients; <u>Patient variables</u>: Age, sex, aggression before onset of dementia, level of cognitive impairment, behavior and memory problems	was when he or she was told to do something; <u>Caregiver variables</u>: Sex, income, relation to patient, NEO neuroticism score, reaction to patient problem behavior, length of caregiving, past social interaction	caregiver reaction to aggression was to retreat, ignore, or accept such behavior. Feeling angry, but not responding aggressively, was reported by 10,1 % of the caregivers, whereas aggressive reactions to patient aggression were reported by 10,6 % of the caregivers. … a more troubled premorbid relationship between the caregiver and receiver, higher levels of premorbid patient aggression, and greater number of patient problems were

			significant predictors of current patient aggression.
	objective burden: … past social interactions with their patients as being of poorer quality, patients having greater number of behavior and memory problems … living together at the time of the assault	**subjective burden:** … being less healthy (caregiver), being more distressed by these problems, spending less time in pleasurable activities	

Studien, die negative Folgen von Gewalt beschreiben

Year NAME **COUNTRY** population (N=) *method*	**outcome of aggressive behavior against family caregivers [246]**
S **LABRUM 2017** **USA** persons who report having an adult relative with PD (N=243) *Survey* ➔ Ergänzen mit Haupt und Nebenstudien! PD= psychiatric disorders	**violence:** In the past 6 months… <u>36 (15 %) of respondents reported physical abuse:</u> 16 (6,6 %) reported “one type of physically abusive act”, 20 (8,2 %) “multiple types of physically abusive acts” or that “specific act was committed multiple times” ->Co-occurrence of abuse:17 (47 %) also experienced financial abuse, 29 (81 %) psychological abuse. <u>47 (19 %) reported financial abuse:</u> 10 (4,1 %) were financially abuse “once”, 23 (9,5 %) were abused “between 2 and 4 times”, and 14 (5,8 %) were abused “5 ore more times”. ->Co-occurrence of abuse:17 (36 %) also experienced physical abuse, 39 (83 %) psychological abuse. 9<u>9 (41 %) psychological abuse against them</u>,

	Median summed score for psychological abuse is eight (M= 8,77, SD= 3,44) ->Co-occurrence of abuse: 29 (29 %) experienced physical abuse, 39 (39 %) financial abuse. **burden:** <u>Violence at home</u>: <u>Feeling</u>: concern, guilt, fear, grief
D **2017 LANGE** **USA** caregivers of US military service members with TBI (N= 214) *study* EINSCHUSS??	**burden:** … high caregiver burden was associated with a service members symptom of […] and verbal and physical expressions of irritability, anger, and aggression.
S **2016 VARGHESE** **INDIA** caregivers of patients with severe mental illness (N= 100) *cross sectional study*	**violence:** <u>Verbal aggression:</u> 95 % - makes loud noises, shouts angrily: 85 % - makes personal insults (e.g. "You're stupid!"): 76 % - curses viciously, uses foul language, makes moderate threats to others or self: 62 % - makes clear threats of violence toward others or self (I'm going to kill you.):38 % - requests to help to control self: 13 % <u>Severity of aggressive behavior</u>**:** - slight/ mild: 14 % - moderate/moderately severe: 53 % - severe/extreme: 33 % **burden:** <u>Impact of patient aggression on the caregiver:</u> - impairment of relationship between patient and carer: 42 % - adverse moral emotions: 91 % - adverse feelings to external sources: 30 %
 2016 KAGEYAMA **JAPAN**	 **violence:**

parents of patients with schizophrenia (N=400) *questionnaire*	… of 400 parents, 263 (65,8 %) „no physical violence“and 137 (34,4 %) „physical violence“. 35 (8,8 %) erlebten “acts of violence”, 136 (34,0 %) berichteten “other aggressive acts” im letzten Jahr. Letztere teilten sich noch auf in 34 Eltern, die zusätzlich auch „acts of violence“ erfuhren und 102 Teilnehmer mit „other aggressive acts only“. *Tabelle einfügen!* … acts of violence: visited physician for injury, injured with knife, threatening with knife, beating with a physical object, choking … other aggressive acts: destroyed property, pushing, punching and kicking, throwing an object
S **2016 KIVISTO** **USA** patients and a nominated informant who best knew what was going on in his or her life: 47 % family and 24 % friends (N=1136) *Interview with both and records*	 **violence:** … the rates of violence toward any family member by patients with schizophrenia were 60,9 % (lifetime) and 27,2 % (past year).
D **2015 RATTINGER** **USA** patients with dementia and their unpaid caregivers (N= 306) *progression study*	 **burden:** - NPI: Neuropsychiatric Inventory - CGNPM: Number of caregiver non-psychotropic medications - CGPM: Number of caregiver psychotropic medications - CGHC: Number of caregiver health conditions … greater CGHC and CGNPM were associated with NPI-agitation/aggression, although over time, higher NPI-agitation/aggression predicted lower CGNPM. … NPI-agitation/aggression were associated with higher caregiver depression scores over time. … significantly associations of agitation/aggression with CGNPM. … CGNPM remained after controlling for dementia severity. … neuropsychiatric symptoms are associated with negative caregiver psychiatric and health outcomes over time, particularly affective, psychotic and agitation/aggression are associated with more severe depressive symptoms in caregivers.
S **2015 KONTIO**	 **violence:**

FINLAND focus groups including relatives (N=8) *Qualitative design*: *focus groups* *interviews*	12-Month Prevalence of Family Violence Perpetration: … 4 in 10 discharged patients committed at least one violent act following discharge, similar rated across male and female patients. … prevalence rates for IPV (Intime Partner Violence) perpetration is more than twice as high among discharged female patients (13,9 % vs 29,4 %)
D **2015 FINLAYSON** **UK** adults with mild to profound ID (Intellectual Disabilities) and their carers: 218/446 patients /carers (N=511) *face-to face interviews*	**violence:** … 44 (9,8 %) of the 446 carers experienced at least one injury that required medical or nursing attention and treatment in the previous 12 months (four of the 44 experienced two incidents of injury). … the family carers (17, 7,8 %) were significantly more likely to have experienced falls, trips, or slips than the paid carers (7, 3,1 %). … the family carers (7, 3,2 %) were significantly more likely to experience bone fractures than the care/support workers (1, 0,4 %). … 57 (12,8 %) carers reported that they were exposed to challenging behaviors of adults with ID through their caring/support role (16, 7,3 % unpaid carers). The term challenging behavior included but was not exclusive to physical aggression. 17 (3,3 %) carers were specifically exposed to physical aggression through their caring/support role, but only one (0,2 %) experienced an injury in the 12-month period.
S **2014 ONWUMERE** **UK** caregivers of patients with psychosis (N= 72) *interview*	**violence:** … 52, 9 % of the caregivers reported at least 1 incident of patient-initiated violence during their CFI interview. … 62, 2 % reported personal violence, 5, 4 % of the violence was toward other family members. <u>Examples of caregiver reports of patient violence from the Camberwell Family Interview: (</u>Violence toward caregiver) - "He used to give you the odd punch and kick as he was walking by, but his mind was so confused and muddled." - "She did hit me a few times when we used to live together. " - "He started to slap me, threaten me, and push me. This went on

	for a couple of days and I couldn't get anyone out to assess him. " - "I have passed him money in the past he squeezed it in my hand that made it bleed. He twisted may hands as if I have done something wrong and that does really get to me. " - "He only ever lashed out at me at once. " - "She hit me yesterday because she wanted me to come up here every day like I used to. " - "He punched me in the face and threatened to kill me. I had a fractured rib." - "There was a period when he was violent every day. " - "The day she hit me I was going to ring child line. This wasn't my mum. This is because she had escaped from hospital. " - "Only been aggressive to me once, years ago. I said if you do that again I will hit you in the balls when you are fast asleep----he has never touched me since. He has got physical with my eldest daughter-he transferred it over to her."
S **2014 HSU** **TAIWAN** patients with schizophrenia and their parent (N=14) *qualitative study design: phenomenology, individual in-depth interviews*	**violence:** … most violent episodes were verbal (e.g. abusive language, yelling to parent, blaming, ridicule and criticism), … followed by damage to property, violent threats of harm and physical violence towards objects and families (e.g. hitting, shoving, throwing objects, punching walls or doors)
D **2013 UEI** **TAIWAN** people with dementia and their primary caregivers (N= 162) *Cross-sectional study*	**violence:** <u>DBD (dementia behavior disturbance)</u> … the most frequent behavior types were […] agitation (2,38 in a range of 0-4), […] aggressiveness (1,77); and inappropriate sexual behavior (1,1). **burden:** … the results of multiple regression analyses showed that the frequency of DBD of people with dementia, […] were significantly positively associated with increased care burden.
S **2013 HANZAWA**	**violence:**

JAPAN caregivers of individuals with schizophrenia (N= 116) *questionnaire*	… 56 (48,3 %) family members experienced patients' abusive language and violent behavior toward family members or others. **burden:** … with violence behavior (N= 56) vs without violence behavior (N= 56) IES-R (psychological impact) total score: 31,21 vs 21, 83 (mean) - Intrusion: 11,21 vs 7,58 (mean) - Avoidance: 11,96 vs 8,56 (mean) - Hyperarousal: 8,04 vs 5,69 (mean) … Zarit Caregiver Burden Interview total score: 17, 21 vs 11,67 (mean) … there was a significant difference in mean IES-R total scores between caregiver families who had experienced a patient's violent behavior and those who had not (P<0,01). … however, the IES-R total score was not significantly associated with patients' abusive language and violent behavior using multiple regression analysis.
D **2012 HUANG** **TAIWAN** patients with dementia (N= 88) and caregivers (N= 88) *cross-sectional study*	**burden:** … for individual BPSD … NPI-D score (caregiver burden): … agitation/aggression (mean 3,0), irritability/lability (mean 2,6) … agitation/aggression showed a statistically significant positive correlation between symptom frequency and NPI-D score. … agitation/aggression and irritability/lability showed a statistically significant correlation between symptom severity and NPI-D scores and showed a significant correlation between the product of frequency and severity and NPI-D score.
D **2012 MORGAN** **USA** PwD and caregivers (N=171) *Longitudinal study design*	**burden:** … both depression and dementia severity were also indirectly related to caregiver burden through their relationships with our baseline measures of agitation (p<0,03 with depression and p<0,001 with dementia severity). … the relationship between basline nonaggressive physical

	agitation and time to aggression onset appeared mediated by caregiver burden (p<0,001) and to a lesser extent change in nonaggressive physical agitation (p<0,10). SCHAUBILD DIREKTE UND INDIREKTE BEZIEHUNGEN ZWISCHEN PSYCHOSOZIALEN FAKTOREN UND AGGRESSION UND CAREGIVER BURDEN
D **2011 UNWIN** **UK** family caregiver of people with intellectual disabilities (ID) (N= 44) *part of a longitudinal explorative study* EINSCHLUSS?	**violence:** Types of aggressive behavior: (N= 44) - verbal aggression: 34 (79, 1 %) - physical aggression to others: 16 (37, 2 %) - SIB (against the self): 18 (41, 9 %) - physical aggression toward objects: 25 (58, 1 %) - all four types of aggressive behavior: 4 (9, 3 %) **burden:** … in terms of the ABC-I measure for severity of aggression, caregiver burden was strongly positively associated. Conversely, caregiver uplift was negatively correlated. … caregiver burden was significantly higher in those caring for people who showed physical aggression in the week preceding assessment compared with those who did not show physical aggression.
D **2010 COOPER** **UK** family dementia carers (N= 220) *part of a larger cross-sectional study*	… proportion of family carers who reported that each abusive behavior was happening "at least sometimes" in 3 months (from large to small percentage): - used harsh tone of voice, insulted or swore at carer - screamed or yelled at carer - accused carer of neglecting or abandoning them threatened to use physical force on carer - threatened to leave, live elsewhere or evict you - carer afraid CR might hit or hurt them - hit or slapped carer - otherwise behaved roughly towards carer - shaken carer - not allowing carer to eat *BALKENDIAGRAMM*
S **2009 LOUGHLAND** **AUSTRALIA** carer-relatives of people	**violence:** … overall, verbal aggression was reported to occur with the

with psychosis (N= 106) *questionnaire*	greatest frequency, followed by physical, then self-directed and sexual aggression. **burden:** … IES-R score (was used to measure PTSD symptoms after exposure to levels of aggression): 34 (51,5 %) reported an IES-R score of 33 or more and were assigned to the "high likelihood of PTSD" subgroup. … exposure to verbal aggression, but not physical, self-directed or sexual aggression, was significantly higher in the high likelihood of PTSD subgroup.
2009 JACKSON **UK** family carers of adults with Acquired brain injury (ABI) (N= 222) *questionnaire, comparison with patients with dementia* *->from two studies: ABI study and Dementia study- secondary analysis*	**Violence/ Burden:** … aggressive problems significantly predicted greater burden, poor quality-of-life and poor mental health in ABI carers, (whereas passivity/low mood significantly predicted greater burden and worse quality-of-life in dementia carers.) … aggressive behaviours were more likely to occur in people with head injuries than other groups with ABI (p<0,05). … overall frequency of behavioural problems was similar across groups, negative carer reactions to problems were greater overall in the ABI group. Associations were found between the extent of behavioural problems, both overall and in subscales, and carer burden, quality-of-life and mental health.
S **2008 CHAN** **CANADA** caregivers (N= 61) and their relatives with schizophrenia (N= 51) *survey*	**violence:** … prevalence of Violence and Injury Against Caregivers in Families Providing Care to Relatives with Schizophrenia (N= 61) in the last 12 months <u>Physical assault</u> Severe 26,2 % Minor 31,1 % <u>Psychological aggression</u> Severe 44,3 % Minor 63,9 % <u>Any incident of violence</u> 63,9 % <u>Injury</u>

	Severe 9,8 % Minor 18,0 %
D **2008 ORENGO** **USA** patients with dementia (N= 385) *telephone screening*	**violence:** … 75/385 participants (19, 5 %) were aggressive at the initial telephone screening. - 23 (31 %) verbally aggressive - 9 (12 %) physically aggressive - 24 (32 %) both, verbally and physically aggressive - 19 (25 %) unspecified aggressive behavior
S **2007 THOMPSON** **USA** caregiver of patients with severe mental illness (SMI) (N= 189) *part of the Duke Mental Health Study (RCT): "The effectiveness of involuntary outpatient commitment and…" (Swartz et al. 1995)*	**burden:** … caring for persons with SMI who engage in violence is associated with a greater number of financial contributions and more perceived financial strain. Caregiver Burden / Financial Contributions / Perceived Financial Strain Stressor / Violence Effects / Violence Effects Moderator variable Perceived disruptive behavior* -low 2,225 2,138 -moderate 3,379 2,984 -high 4,533 3,785 *= included problems sleeping, verbal abuse, stealing, inappropriate sexual behaviors, hallucinations, suspicions, delusions, temper tantrums, carelessness with safety, pacing aimlessly, running away, social withdrawal, eating too little or overeating
D **2007 MATSUMOTO** **JAPAN** participants with dementia and their caregivers (each N= 67) *second analyses of a study, analysis of three*	**violence:** … the most common symptom […], followed by agitation/aggression (39 %) and irritability/lability (34 %). **burden:** … agitation/aggression had the highest mean NPI-D score

studys	(caregiver distress) (mean 2,3) followed by irritability/lability (mean 2,1). … across all subjects, the symptoms most frequently reported to be severely distressing to caregivers were agitation/aggression, delusions and irritability/lability.
D **2005 MEILAND** **NETHERLAND** partners of patients with dementia (N= 58) *Interview, cross sectional design -> part of a larger multicenter study (IMO-project)*	**burden:** - NPI-D score (emotional impact) - Agitation/Aggression (N= 41) -> 3,3 mean - Disinhibition (N= 34) -> 3,1 mean - Irritability (N= 38) -> 3,3 mean
S **2005 ELBOGEN** **USA** persons with severe mental illness (SMI) (N= 245) *Interviews for a randomized study*	… 1/5 of the sample (N= 47, 19,2 %) reported either engaging in physical fights or making verbal threats using a deadly weapon with a family member during the year of the study.
S **2004 JOYAL** **CANADA** men with Schizophrenia (N= 58) and schizoaffective psychosis (N= 4) *interviews*	… nearly half (47 %) of the offenders assaulted someone from their own household, including parents and roommates. … violence and aggression displayed by individuals with schizophrenia, family members, acquaintances, friends, or health care providers are more likely to be targeted than strangers, even when homicide and antisocial personality disorder (APD) are considered.
S **2003 ROBBINS** **USA** patients in acute psychiatric wards (men N= 667, women N= 469) *part of the "MacArthur Violence Risk Assessment Study"*	**violence:** Prevalence during 1-year follow-up: "Act of violence": 29,7 % for men, 24,6 % for women (differences between men and women only at the first follow-up period) "At least one other aggressive act only"**:** 30,1 % for men, 37,0 % for women "Violence or other aggressive acts": 59,8 % for men, 61,6 % for women

	<u>Types, targets, and locations of violence:</u> <u>"Act of violence":</u> kick/bite/hit-beat up, weapon threat/weapon use -> especially men <u>"Other aggressive acts":</u> throwing objects/ push/ grab/ shove/slap -> especially women <u>Target:</u> family members with women (69,5 % violence/74,6 % other aggressive acts)> men (39,9 %/ 48,8 %) <u>Locations:</u> Subject's home with women (55,8 %/ 68,2 %) > men (35,8 %/ 53,1 %) <u>Time:</u> on the first 20 weeks with men (21,4 % violence) > women (15,2 % violence) but with women (35,2 % other aggressive acts- and no violent act) > men (27,1 %)
S **2003 LAUBER** **SWITZERLAND** relative of schizophrenic patients (N= 64) *semi-structured Interview*	**violence:** … more than half of the relatives had to deal with irritability, anger, and serious conflicts. More than one third of the affected were physically aggressive. … disturbing behavior of the affected (N= 64): a selection of items and respective percentages: <u>Aggression (frequency)</u> - irritability and anger 78 % - serious conflicts 55 % - impoliteness, rudeness, disrespect 48 % - destruction of objects 45 % - physical aggression 38 % - threatening behavior 31 % <u>Nuisances and threats (frequency)</u> - towards the informant 58 % - towards those living in the same house 44 % **burden:** <u>Burden in the relationship</u>: … disturbing or restricting behavior of the affected 95 % … both total burden scores are related to the aggressive behavior of individuals with schizophrenia.

2002 VADDADI **AUSTRALIA** Clients* of a community mental health service and their family carers (N= 101) *interviews* **: majority: schizophrenia or schizoaffective disorder*	**violence:** <u>Prevalence of abuse experienced by carers (at any point during patient's illness/ in the last year)</u> <u>Verbal aggression:</u> - regular loss of temper: 66 %/47 % - regular shouting and swearing: 64 %/42 % - threats of violence (ever): 40 %/22 % <u>Physical aggression:</u> - hit or struck (ever): 40 %/24 % - physical injury (ever): 17 %/4 % - destroyed property (ever): 41 %/22 % <u>Correlates of severity of reported abuse:</u> <u>Variable:</u> Patient's self-report on pre-episode relationship, Carer's self-report on pre-episode relationship, Number of reported offences with p< 0,05/0,01 **burden:** … in both cases there was a highly significant correlation (GHQ and abuse, total burden and abuse). <u>Comparison between the admission sample vs. the current community sample: </u>(both N= 101) Carers' burden score**:** 12,2 vs. 9,9 Carers' GHQ total score (level of emotional distress): 11,1 vs. 9,3 … levels of abuse were generally higher in the acute sample, whose level of clinical symptomatology was greater.
D **2002 FOGEL** **USA** family caregivers of care recipients with dementia (N= 18, 17 % from the larger study) *post-hoc study* *Einschluss?*	**burden:** … correlational analyses showed significant <u>relationships between</u> certain behavioral symptoms (<u>aggression</u>, delusions, hallucinations, sleep disturbance, and depressed mood) <u>and higher levels of caregiver burden and depression.</u> Also, longitudinal analysis revealed that <u>higher levels of caregiver depression</u> were significantly <u>associated with</u> the onset of depressed mood and <u>verbal aggression by….????</u>
S **2002 MACINNES**	**violence:**

UK caregivers of clients suffering from schizophrenia with a forensic history (N= 79) and caregivers of non-offenders (N= 28) *In-depth interviews, Survey design (cross sectional)*	… a great number of participants expressed concerns about violence with 177 events detailed. Approximately two third of those related to violent threats or actions directed towards the caregiver with the forensic group describing significantly more events of this type than the non-forensic group. … nearly half of the violent burdens recounted (42,5 %) were rated as severe; they included attacks with weapons and injuries that required hospitalization. In addition, threats of violence often accompanied requests for money. **burden:** … the three most described burdens were those related to (annoyance), symptomatology and violence. Forensic caregivers were most likely to note burdens relating to (annoyance), symptomatology and violence […]. … there were slightly more severe burdens in the forensic group which may be related to the greater reported number of violent incidents.
D **2002 CALHOUN** **USA** partners of vietnam war combat veterans, with PTSD vs without PTSD (N= 51 vs N= 20) *interviews*	**burden:** … association between caregiver burden and symptom variables including (PTSD severity), level of interpersonal violence, […], among those veterans diagnosed with PTSD. … PTSD symptom severity and both veteran-reported and partner-reported acts of interpersonal violence committed by the veterans were significantly associated with caregiver burden among partner of patients with PTSD. - Partners caring for veterans with more severe levels of PTSD symptoms and higher levels of interpersonal violence tended to experience higher levels of caregiver burden. … both PTSD symptoms severity and level of interpersonal violence independently contributed to the variance in caregiver burden. … interpersonal violence was also significantly associated with partner psychological adjustment. - greater levels of interpersonal violence were associated with poorer psychological adjustment.
#s	

2001 Dore **NEW ZEALAND** caregivers of patients with bipolar disorder (N= 41) *face-to-face interview*	**violence:** *"Once he threw me on the floor and tried to butt my head. "* *"He threatened me with a chain saw once."* *"She was about to stab me with a kitchen knife so I knocked her out."* *"His hostility and threatening attitude to me personally is upsetting and at times frightening (during mania)."* **burden:** Caregiver relationship with the patient: … most caregivers (81 %) were distressed by the way the patient related to them when unwell; 64 % described the level of personal distress as "severe". Caregiver experience of stress: … for 44 % this was primarily when the patient was ill, while another 27 % felt this stress even when the patient was well. … stress as major (partners 85 % vs parents 87 %) Problem behaviours: … most commonly, caregivers found aggressive and violent behaviours to be most disturbing (17 %).
D **1998 MARSH** **NEW ZEALAND** caregivers of adults with a severe traumatic brain injury (TBI) (N= 69) *questionnaires,* *6 months* *and* *1-year post-injury* *part of the Waikato Traumatic Brain Injury Study*	**violence/burden:** 6 months following severe traumatic brain injury: Problem area — Frequency — Mean distress: Behavioural — 4-point scale -impulsive — 35/ 52 % — 2, 23 -mood changes — 34/ 50 % — 2, 74 -ange**r** — 34/ 50 % — 2, 68 -Irritable — 34/ 50 % — 2, 68 -aggression — 19/ 28 % — 2, 79 …Aggression: low frequency, but causing the greatest degree of distress for caregivers!! … caregiver reports of the number of behavioural problems displayed by the TBI patient were related to all aspects of caregiver functioning: Objective burden: - depression - anxiety - social adjustment

	- subjective burden … summary of simultaneous regression analysis for TBI patient variables (behavioural) predicting caregiver functioning: - -objective burden - -anxiety - -social adjustment - -subjective burden 1 year following severe traumatic brain injury: Problem area Frequency Mean distress: behavioural 4-point scale -impatient 51/ 74 % 2, 61 -overly sensitive 42/ 61 % 2, 31 -impulsive 42/ 61 % 2, 17 -anger 38/ 55 % 2, 76 -irritable 33/ 48 % 2, 49 -mood changes 31/ 45 % 2, 65 -aggression 22/ 32 % 2, 50 … the number of behavioural problems reported for the person with TBI was significantly related to caregiver levels of… - objective burden - anxiety - social adjustment - subjective burden … summary of simultaneous regression analysis for patient with TBI variables (behavioural) predicting caregiver functioning: objective burden, subjective burden
D **1998 VICTOROFF** **USA** Patient with dementia-caregiver pairs (N= 35) *interviews*	**burden:** … there were highly significant correlations between patient agitation and both caregiver burden and depression. … agitation, particularly physical aggression, may impact caregivers even more than does the cognitive status of the demented patient. … the presence of violence was significantly correlated with caregiver burden.

D **1998 NAGARATMAN AUSTRLIA** patients with dementia and their caregivers (N= 90) *Study, interview with the caregiver + tests with the patient*	**violence:** … the most common behavioral change was aggression (59 %), […]. … most disturbing was the uncontrollable bouts of aggression seen in 59 % of the dementia patients that were mostly directed to the caregiver. … the behavioral problems perceived by the caregivers of those with moderate-severe dementia included a higher incidence of wandering and incontinence and a lower incidence of verbal aggression than among those with mild dementia. mild Dementia: verbal aggression 30/43 (N= 43) physical violence 7/43 moderate-severe dementia: verbal aggression 23/47 (N= 47) physical violence 3/47 **burden:** … aggression caused the most distress to the caregiver
? **1997 VADDADI AUSTRALIA** patients and their relatives (N= 101) *semi-structured interview*	**violence:** Prevalence of abuse of carers by patients Type of abuse Percentage frequency (N= 101) Shouting and swearing - never: 40 % - often: 43 % - most of the time: 18 % Temper outbursts - never: 29 % - often: 48 % - most of the time:24 % Physical threats - never: 55 % - on one or two occasions: 13 % - several/many times: 33 % Hitting and striking - never: 68 % - on one or two occasions: 15 % - several/many times: 17 % Causing physical injury

	- NO: 80 % - YES: 20 % **burden:** … 15 % of the carers reported living in fear of their relative, all of these carers having experienced threats of or actual physical harm. … 79 % of the carers had scores of >4 (GHQ), indicating a significant level of emotional/psychiatric disorder. … the total amount of abuse experienced correlated positively with relatives' GHQ score, as did the number of types of abuse. … the correlation between the total burden score and the total amount of personal abuse was highly significant.
S **1997 TARDIFF** **USA** psychiatric patients after hospital discharge (N= 430) *prospective study*	**violence:** <u>One or more violent acts toward persons within two weeks after discharge</u>: 16 of 430 (3, 7 %) <u>Types:</u> most of the attacks involved punching or scratching and left bruises or scratches <u>Target:</u> most were directed toward spouses, other intimates, or other family members
S **1994 ASNIS** **USA** outpatients (N= 517) *survey*	**violence:** … <u>patients with a diagnosis of alcohol and substance abuse</u> had the greatest frequency of <u>past homicidal ideation and patients with schizophrenia</u> had the <u>greatest frequency of past homicide attempts.</u> <u>The targets of the homicide attempts were</u>: - father (18 %) - brother (9 %) - spouse or girlfriend or boyfriend (27 %) - strangers (18 %). <u>Type:</u> … knife was the most common weapon, used in 45 percent of the attempts
? **1994 REIS** **CANADA** caregiver-	**burden:** … female caregivers […] who were caring for more aggressive and

carereceiver participant pairs (N= 213) *interview*	more impaired dependents found caregiving more burdensome.
D **1990 HAMEL** **CANADA** caregivers and care receivers with dementia (N= 213) *interviews*	… caregivers reported some form of aggression for 119 (57,2 %) of the dementia patients. Verbal aggression in 106 (52 %) of cases Physical aggression in 71 (34,1 %) of cases: the most common form, 21 % threatening gestures Sexual aggression only in 17 (7,2 %) of the care receivers: persistent hugging and kissing, each less than 7 % … the actual frequency was low … hostile and accusatory language, the most frequently occurring form of aggressive act, was observed in 44,7 % of the patients. … daily occurrence for only 10,6 %

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Abkürzungsverzeichnis zum Anhang

ABS	Agitated Behavior Scale
ACES	Agitation-Calmness Evaluations Scale
AEs	Adverse Effects
BARS	Barnes Akathisia Rating Scale
BPRS	Brief Psychiatric Rating Scale
CABS	Corrigan Agitated Behaviour Scale
CGI-I	Clinical Global Impression-Severity of Illness Scale
CGI-S	Clinical Global Impression-Improvement Scale
CI	Confidence Interval
EEG	Electroencephalogram
IM	Intramuscular
MBPRS	modified Brief Psychiatric Rating Scale
NNT	Number Needed to Treat
PANSS	The positive and negative syndrome scale
PEC	PANSS Excited Component
OAS	Overt Aggression Scale
RCT	Randomized controlled trial
RR	Relative Risk
SAS	Simpson-Angus Scale
YMRS	YoungMania Rating Scale

Offener Brief des Bundesverbandes der Psychiatrie-Erfahrenen (BPE)

Sehr geehrter Herr Steinert,
sehr geehrte Damen und Herren,

der Bundesverband Psychiatrie-Erfahrener lehnt diese Leitlinie ab.

Wir möchten, dass unsere Ablehnung klar erkennbar in der Leitlinie verschriftlicht bzw. festgehalten wird. Da ich mit den Abläufen von Leitlinienerstellungen nicht im Detail vertraut bin, muss ich Ihnen überlassen, an welcher Stelle dies geschieht. Ich bitte aber um eine Rückmeldung und Versand der weiteren Emails an den geschäftsführenden Vorstand unter vorstand@bpe-online.de statt nur an Ruth Fricke. Frau Fricke ist selbstverständlich Teil des Vorstandsverteilers.

Leitlinien sollen den aktuellen Stand der Wissenschaft zusammenfassen und dienen der Profession als Grundlage ihres Handelns. Leitlinienkonformes Handeln kann sogar als Argumentationsgrundlage herangezogen werden, um sich bei zweifelhaftem Vorgehen aus der Verantwortung zu ziehen. Diese Gefahr ist hier gegeben. Gerade deswegen ist unsere /fristgerechte /Ablehnung wichtig und richtig.

Die Gründe für unsere Ablehnung sind /vielschichtig/, ich möchte Ihre Zeit aber nicht über Gebühr in Anspruch nehmen. Deshalb beschränke ich mich auf einige im Verlauf unserer internen Diskussionen angesprochenen Aspekte.

Sie als Kollektiv unternehmen den Versuch mit dieser Leitlinie Zwang und Gewalt gegen Psychiatrie-Erfahrene zu rechtfertigen und zu legitimieren. Dabei bleibt unerwähnt, dass extensiv Gewalt gegen als "schwierig" bezeichnete, /nicht /"aggressive" Insassen der häufigste Fall an psychiatrischer Gewalt ist.

Wie eigenartig wirkt eigentlich schon die Präambel, in der regelrecht die Behauptung aufgestellt wird, dass aggressives Verhalten einer psychischen Erkrankung gleichzusetzen ist? Ebenso kühn behaupten Sie, dass Zwangsmaßnahmen eine Folge aggressiven Verhaltens von Patienten seien. Zwangsmaßnahmen führen häufig zu mehr oder weniger starken psychischen oder physischem Traumata. In der Leitlinie wird Gewalt als zentraler Bestandteil der Behandlung auf- und ausgebaut. Wie ist Satz in der Präambel zu verstehen: "Eingedenk der Gewalt und des Unrechts, die psychisch erkrankten Menschen im Namen der Psychiatrie und durch in der Psychiatrie Tätige in der Vergangenheit angetan worden sind, muss dem professionellen Umgang mit aggressivem Verhalten heute unsere besondere Aufmerksamkeit und Sorgfalt gelten, ..."?

Wir bezweifeln stark, dass die Leitlinie tatsächlich dem Stand der aktuellen Forschung/Wissenschaft entspricht.
Stattdessen steht die Psychiatrie in einer Tradition der Gewalt. Beispielsweise Elektroschocks, die bekanntermaßen zu Zeiten des 2. Weltkrieges durch einen Italienischen Psychiater vom Schweineschlachthof in die Psychiatrie importiert wurden,erleben derzeit eine Wiederbelebung. Euphemistisch werden sie als Elektrokonvulsionstherapie beschrieben und nötigenfalls ohne Zustimmung mit Zwang durchgeführt.

Erniedrigende und menschenunwürdige Behandlung gegenüber den Patienten ist alltäglich und strukturell. Patienten haben kaum Möglichkeiten sich zu wehren. Sie müssen beim geringsten Widerstand Restriktionen befürchten. Gewalt als ein massives Ungleichgewicht von Macht wird verschwiegen. Stattdessen redet man von chemischem Ungleichgewicht im Gehirn. Einfachste menschliche Urprinzipien wie "Gewalt erzeugt Gegengewalt" und "Therapie kann nur freiwillig stattfinden" stehen in komischem Verhältnis zu Ihrer Leitlinie, die Insassen zu Tätern machen will.

Es fehlt ein Hinweis darauf, wie häufig prozentual eingesperrt wird. 20% der Insassinnen sind es laut Bundesjustizministerium seit Jahrzehnten.
Es fehlt auch völlig, dass ein nicht unbedeutender Teil durch geschickte psychiatrische Verhandlungsführung untergebracht ist: "Wenn sie nicht freiwillig hierbleiben, dann holen wir den Richter". Auch hier erkennbar: Ein massives Ungleichgewicht an Macht.

Es könnte sicherlich noch an einigen Stellen detaillierter auf dieses Papier eingegangen werden. Uns bleibt vorerst ein weiterer wichtiger Punkt anzumerken: Wir sehen die Empfehlungen zu Psychopharmaka einfach nur als Frechheit an.

Vielen Dank für Ihre Aufmerksamkeit.

Martin Lindheimer
im Namen und für den geschäftsführenden Vorstand

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