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what is difficult with research on coercion?

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History

- up to ca 1980 little interest (inherent aspect of psychiatric institutions?)
- not aspect of a disease or novel therapy – little research interest in university medicine
- Lack of interdisciplinary research – belonging to psychiatrists, nurses, sociologists (Goffman), ethicists, or jurists?
- Human rights late discovered for psychiatry
- Lack of common definitions (e.g. restraint)
- Problems to generate and handle big data
- little interest in patients‘ subjective experiences (in total medicine)
- little international collaboration
- first observational studies with small samples (single wards or hospitals) from about 1980

Current status of research

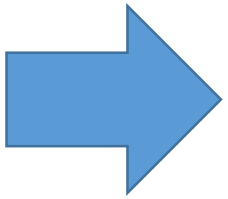
- High awareness, interdisciplinary approach
- Big data nationwide or in big samples increasingly available from electronic databases in routine care
- Clear common definitions available
- Systematic reviews necessary and available
- Evidence-based clinical guidelines available (at least 1)
- Ethical & legal aspects & subjective experiences well explored
- Epidemiology and impact on mental health well explored
- Interventions developed (novel ones possible?)
- Efficacy incompletely demonstrated
- Implementation in routine care (effectiveness) as next step

Topics

- Involuntary admission
- Closed wards
- Seclusion, mechanical restraint, physical restraint
- Alternatives
- informal/soft coercion
- involuntary treatment (medication, ECT), “chemical restraint“

Outcomes

- Number of coercive interventions per hospital, ward, department, per bed per year (easy to count, no patient-related data required). Allows comparison of wards/hospitals
    - but: no results on patient characteristics provided
    - length of stay not taken into account
    - impossible to determine how many incidents per patient
- % of admissions exposed: easy to communicate, robust against outliers, associations with patient characteristics possible [6,7,8,10]
    - but: tells nothing about repeating interventions and duration
    - dependent on admission policies, e.g. for depressive disorders
    - definition required: cases (admissions) or patients
- Number of coercive interventions per affected case and duration of a measure: indicates efforts to prevent further coercion
    - but: definition of repeated measures often slightly different, number and duration mutually dependent
- Solution: cumulative duration of coercion per affected patient per admission (combined measure) [10]
    - but: does not indicate frequency of measures
- % time in coercion of time in hospital [10]: reflects the use of coercion rather good
    - but: coercive medication not taken into account
    - so far rarely used, not much comparison data available



Multiple outcomes make sense for many purposes

Data recording I

1. By a researcher present on the respective unit [2]
   + high validity and reliability (testing possible)
   + no conflicts of interest
   - little sample size or many researchers required

2. Pencil & Paper in routine documentation
   - danger of loss of sheets
   - “perverse incentives“
   - who transfers data into files?
   - outdated, don‘t do!

Data recording II

1. As electronic forms separate from patients files
   + analysis easy
   - inappropriate for many research questions

2. As electronic forms included in patient files [1,3,6,8,10]
   + state of the art
   + linking with patient data possible
   + aggregation possible on different levels: patients vs. admissions, diagnoses, legal status, wards, departments, hospitals, gender, age…
   - underreporting not excluded
   - missing or inaccurate data

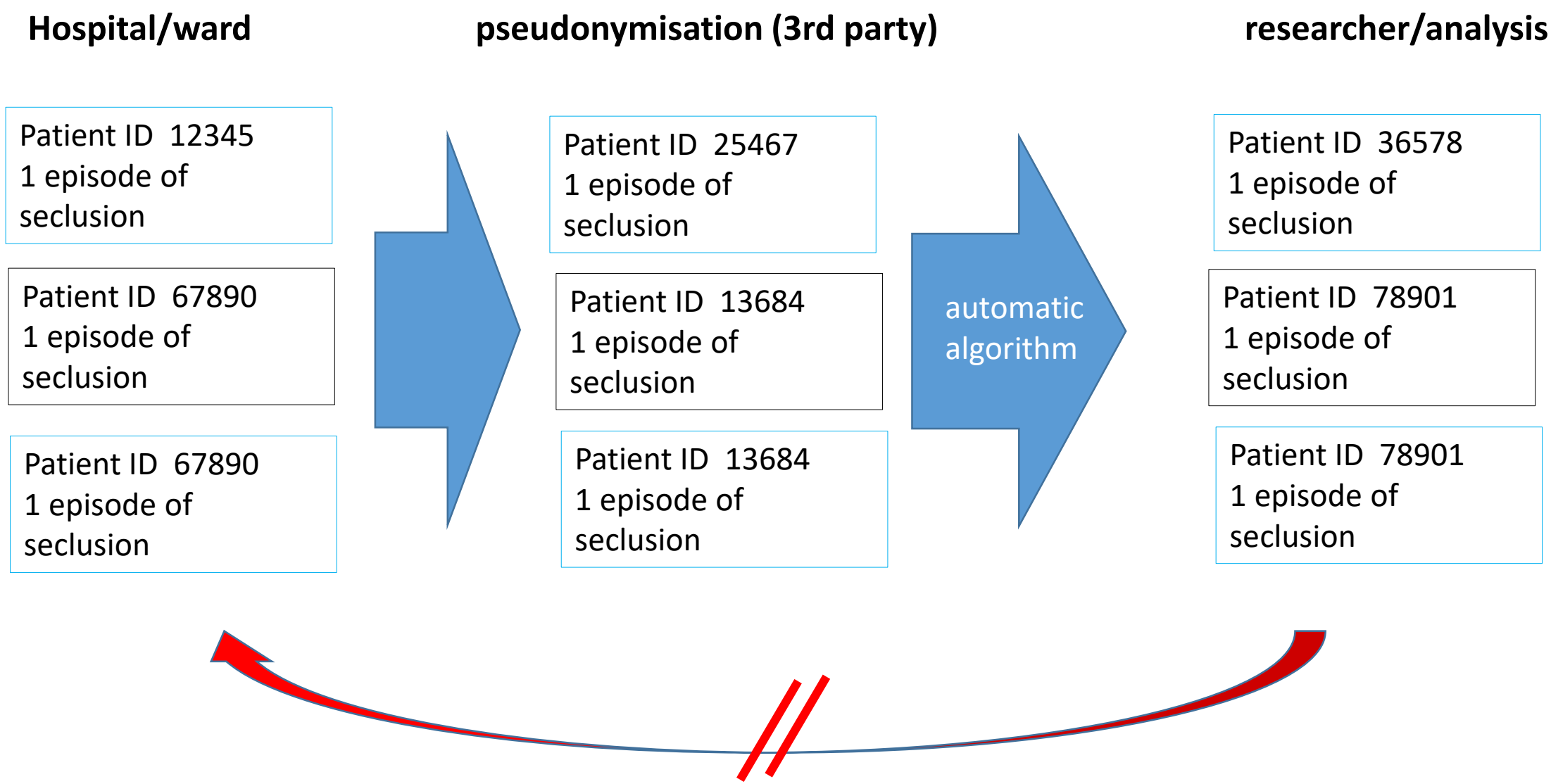
Big data [10]

- Possible due to electronic charts and high computing capacity
- Aggregation of data from an arbitrary number of institutions feasible
- Common definition and recording standards required
- Aggregation of cumulative data (outcomes per hospital)
  + easy to do
  - no calculations on patient level possible
  - no control how calculations have been done
- Aggregation of raw data (each coercive intervention together with patient and ward characeristics
  + Data quality
  - Procedures of data protection required

Data protection and ethical issues [10]

- Informed consent in studies on coercion difficult to obtain, sample selection bias to be avoided
- Counting of incidents can easiliy be done anonymously
  - disadvantage: impossible to say how many patients responsible
- Association of incidents with patients/cases: retrospective analyses possible (at least in Germany) without informed consent if anonymity is guaranteed
- Assignment of incidents to case IDs, double & irreversible pseudonymisation; transfer of data sets for analysis possible (via CD-ROM or internet platform)

example


Hospital/ward
pseudonymisation (3rd party)
researcher/analysis
Patient ID 12345
1 episode of seclusion
Patient ID 67890
1 episode of seclusion
Patient ID 67890
1 episode of seclusion
Patient ID 25467
1 episode of seclusion
Patient ID 13684
1 episode of seclusion
Patient ID 13684
1 episode of seclusion
automatic algorithm
Patient ID 36578
1 episode of seclusion
Patient ID 78901
1 episode of seclusion
Patient ID 78901
1 episode of seclusion

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- Avoid showing groups <5

Typical problems in intervention studies

- Intervention incompletely done (risk: false negative results!)
- More difficult the more participating wards (ex.: Thornicroft et al. Lancet joint crisis plans)
- Develop and use fidelity scales

Pre-Post Designs [1,8]

+ easy to do

Keep constant (and report):

- Number of admissions/time
- Bed occupancy
- Proportion of diagnoses
- Staff
- Policy/interest/awareness
- % involuntary admissions

- never works (everything is changing always…)

+ can be compensated by big N (units)

Control group designs [8]

- difficult to realize on patient level (different treatment on same ward)
- (as much as I know) always done on ward level (cluster RCT)
- high N (of wards) required, difficult to realize
- Similar baseline levels of coercive interventions mandatory

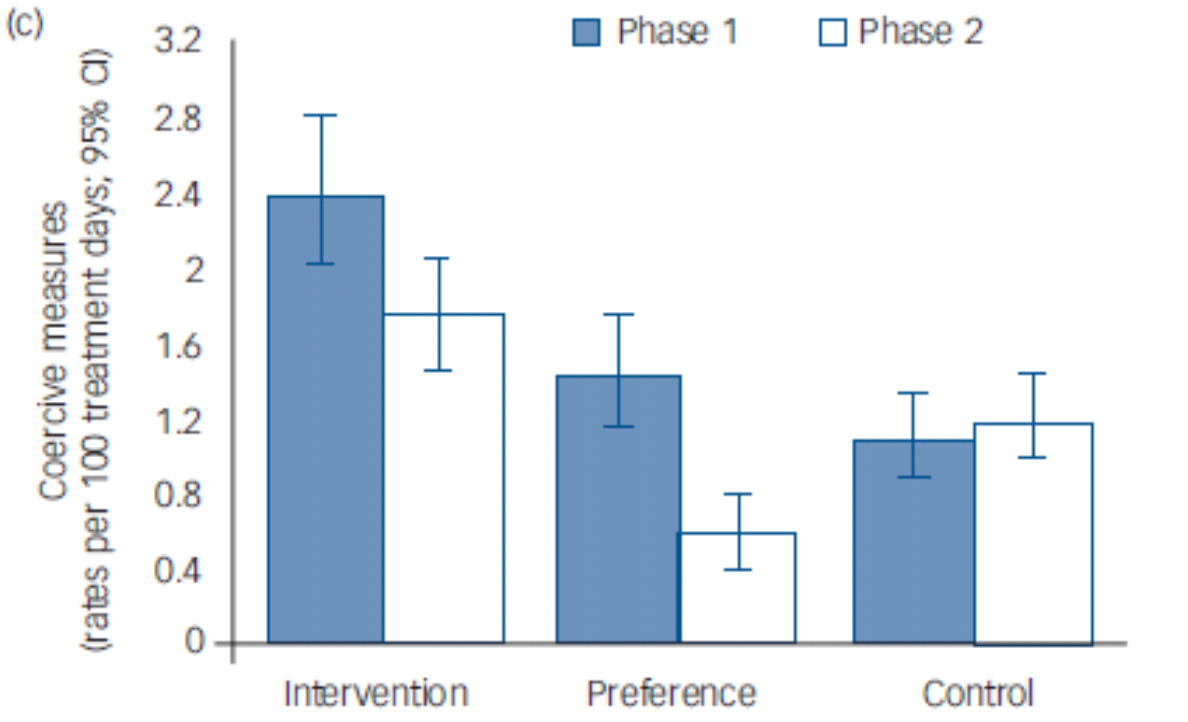


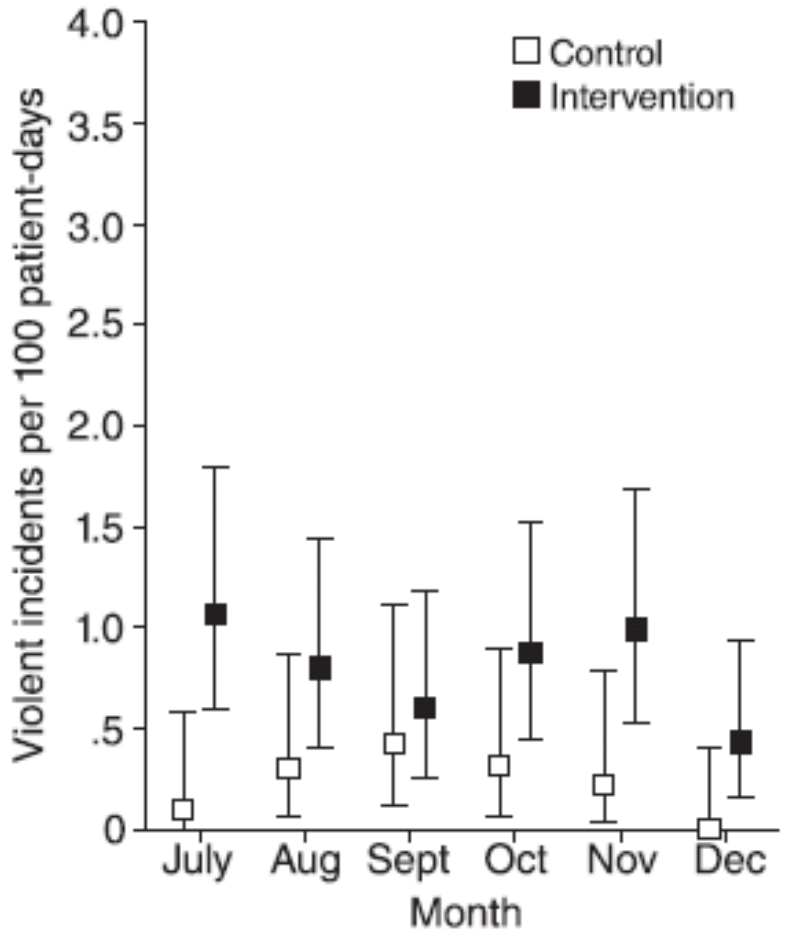
Fig. 2 Main outcome measures.

(a) Incidents with a Staff Observation Aggression Scale – Revised score of 9 or above; (b) physical attacks; (c) coercive measures.

Abderhalden et al. BJ Psychiatry 2008

Figure 3

Number of violent incidents in intervention and control wards during the stabilized intervention[a]



Putkonen et al. Psychiatr Serv 2013

Control group designs [8]

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- (as much as I know) always done on ward level (cluster RCT)
- high N (of wards) required, difficult to realize
- Similar baseline levels of coercive interventions mandatory
- Easier to do than RCT:
  - Natural experiments (ex. law change for part of observed hospitals)
  - use patients as control group for themselves under different conditions

Cohort designs [4,5]

- Longitudinal studies
- Typical questions course and predictors
- rather easy to do
- Risk: sample attrition

The other side of the world: qualitative studies [9]

- Subjective experiences
- Ethical aspects
- „if it is inevitable to use coercion, how should we do it“? (medication, seclusion, restraint, 1:1 presence, debriefing etc.
- Considerably time-consuming (transcripts, qualitative content analysis)
- Samples should be exhaustive, not represenative
- ➡ Don‘t conduct quantitative analyses of qualitative samples (5/20 (25 %) said..)

generalizability

- - -!

- Replication of findings in other settings necessary
- Qualitative and descriptive approaches needed to understand other healthcare/legal systems
- Meta-analyses controlling confounding factors (not yet available)

References of own studies

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