

LIVERPOOL REVIEWS AND IMPLEMENTATION GROUP (LRiG)

Sustainable violence prevention: interventions associated with a long-term reduction in violence behaviour

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Definition of violence

“The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation.” ⁽¹⁾

1. WHO. Violence and injury prevention and disability. World Health Organization; 2009 [cited 2010 November]; Available from: http://www.who.int/violence_injury_prevention/violence/en/.



Violence

■ Consequences

- Individual and society
- Physical, psychological, social and economic

■ Wide range of interventions

- Pharmacological (e.g. Lorazepam)
- Psychosocial (e.g. cognitive behavioural therapy (CBT))
- Organisational (e.g. case management)



Liverpool Violence Group (LiVio) review

- 2004 systematic review of interventions and risk assessment strategies (1,000 included studies from 1955 to 2001)
- 2008 Department of Health commissioned an update
- Part of a larger project “Developing Evidence-based Guidelines for the Prevention of Violence in Mental Health Settings (EPOV)”
- Liverpool Reviews and Implementation Group (LRiG) asked to collaborate on review
- Part of the Health Technology Assessment Programme (HTA)



Systematic Review

- **Effectiveness of interventions and risk assessment tools when they are deployed in mental health and criminal justice settings**
- **Interpersonal violence focus**
- **Comprehensive**
- **Two projects**
 - Interventions to reduce violence
 - Structures risk assessment tools to assess risk of violence
- **Sub-group analysis of long-term outcomes in studies of interventions**



Long-term outcomes

- **Time frame**
 - Short term (hours)
 - Medium-term (months)
 - Long-term (years)

- **Sustained improvements**



Methods

■ Searching

- Search strategy from previous review
- 19 electronic databases, hand searching of review reference lists
- January 2002 to April 2008

■ Inclusion criteria

- Purposefully broad
- Interpersonal violence
- Population
 - Mental disorder, offender, committed an indictable offence
- Aged 17 and over
- Outcome measure - direct violence or proxy measure



Methods

- **Data extraction**
 - Nine reviewers
 - Regular meetings
 - SPSS – study details
 - Excel – outcome measures and effect sizes
 - Cross checking of data by one reviewer



Results

- 102,267 unique publications
- 198 intervention studies
- 44 outcomes measured after 2 or more years

Long-term sub group analysis

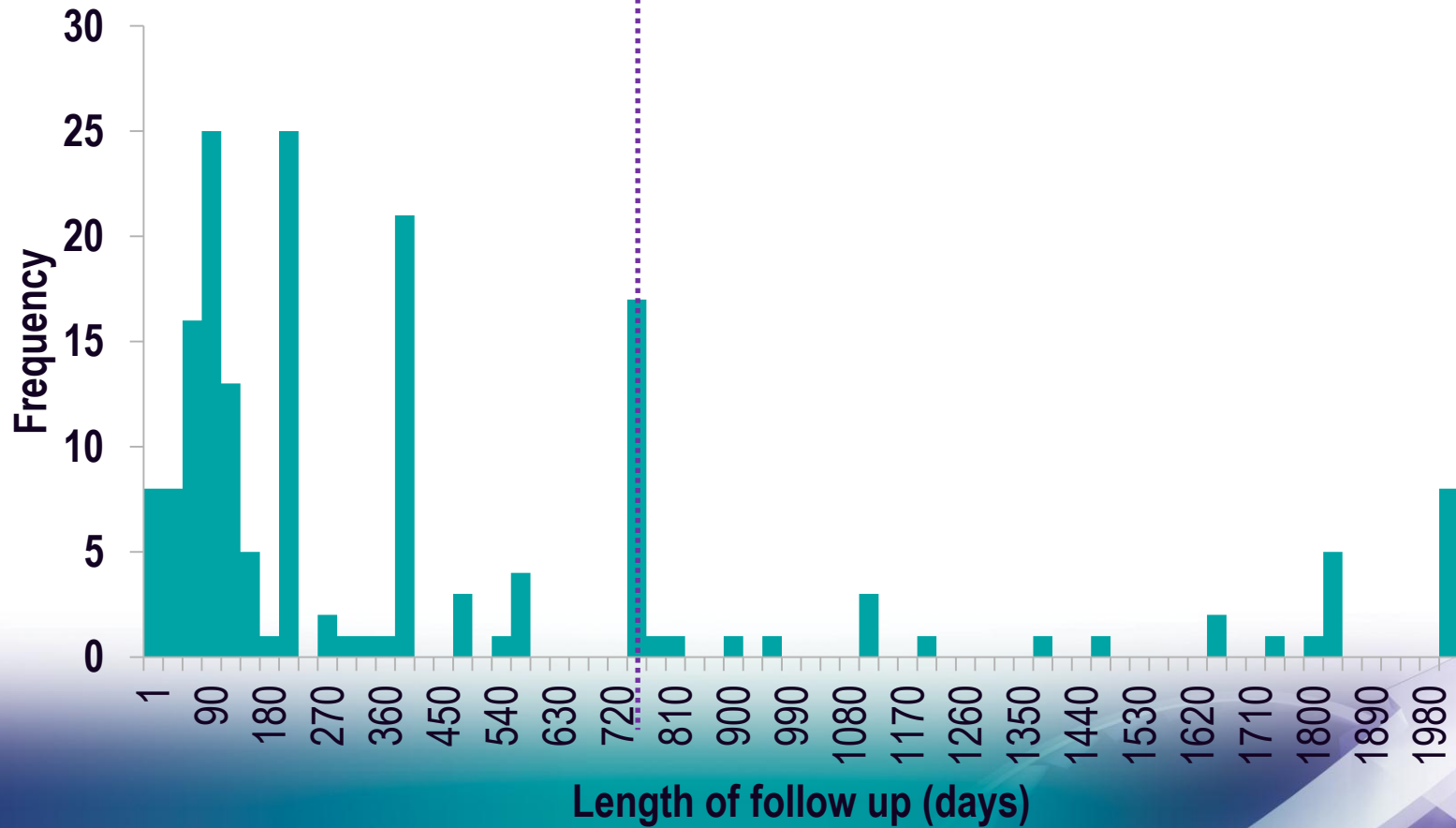
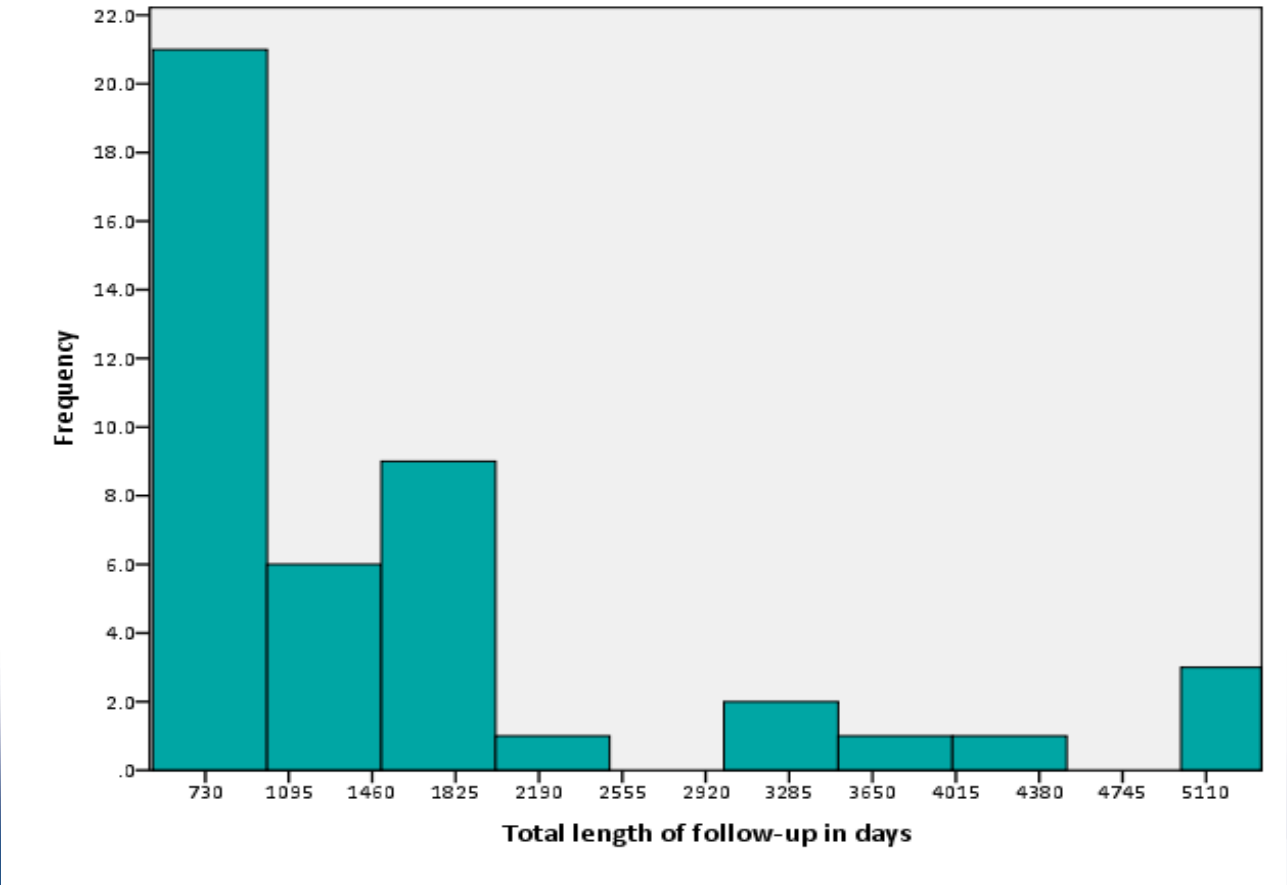


Figure 2: Total length of follow-up in days



Results (Number of studies=44)

■ Design

- RCT – 5 (11.4%)
- Concurrent/Cross-sectional Group Comparison – 19 (43.2%)
- Crossover comparison (N>1) – 1 (2.3%)
- Before and after comparison (N>1) – 17 (38.6%)
- Correlational/Single group no comparator – 2 (4.5%)

■ Interventions

- Psychological – 23 (52.3%)
- Pharmacological – 2 (4.5%)
- Other form of intervention – 19 (43.2%)

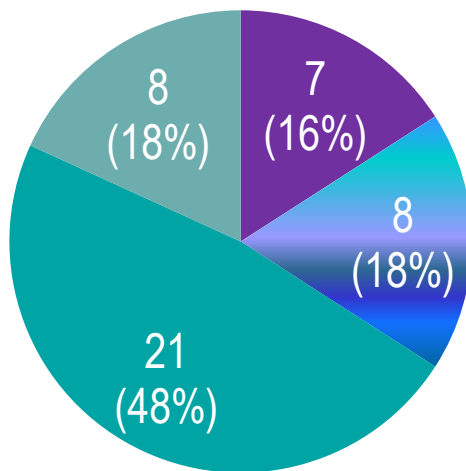
Results (Number of studies=44)

- **Setting intervention started in**
 - Mental health setting = 6 (13.6%)
 - Offenders institution (not forensic) = 12 (27.3%)
 - Community (any) = 19 (43.2%)
 - Mixed settings = 2 (4.5%)
 - Unclear = 5 (11.4%)

Results – Population (Number of studies=44)

- Mental health disorder
- Forensic
- Offender
- Indictable offender

Type of offence	N	%
Domestic violence	13	35%
General violence	2	5%
Mixed group of offences	5	14%
Not stated/unclear	1	3%
Other indictable offence	3	8%
Sex offending	13	35%



Diagnosis	N	%
Bipolar disorder	1	6.7%
Mixed diagnostic groups	7	46.7%
Paedophilia	2	13.3%
Personality disorder only	1	6.7%
Post traumatic stress disorder	1	6.7%
Psychosis	1	6.7%
Schizophrenic spectrum	1	6.7%
Sex offender	1	6.7%



Results (Number of studies=44)

- **Outcome**
 - 30 (68.2%) used re-assault data
 - 8 (18.2%) used structured scale
- **Demographics**
 - Mean age ranged from 23-50 years
 - 29 (66%) male participants only
- **Country**
 - North America – 33 (75%)
 - Europe – 7 (16%)
 - Australia/New Zealand – 3 (7%)



Reduction in violence

- Significant reduction in violence – 26 (59.1%)
- No significant reduction in violence – 18 (40.9%)

Analysis-Full review

■ Bivariate analyses

– 6 key variables

- Intervention was something other than a psychological or pharmacological intervention
- Conducted in an offenders institution,
- Comparator was another active treatment
- Comparator was treatment as usual (TAU)
- A between-groups design had been used.
- Conducted with people with a mental disorder.

■ Multivariate analyses

- Binary logistic regression (Cox & Snell R squared=0.12)

Analysis – long term outcomes

- **Bivariate analyses (chi-square)**
 - 3 variables calculable
 - Only offender (chi-square=3.385, df=1, p=.062)
 - ITT analysis (chi-square =.606, df=1, p=0.326)
 - Community setting (chi-square=9.241 df=1 **p=.003**) (favoured a non-community setting)
 - Multivariate analyses
 - Not appropriate

Summary

- 44 of 198 studies reported outcomes of two or more years
- 11% were RCTs
- 95% were non-pharmacological
- 43% in community and 27% in offenders institution
- 84% were offenders (sex and domestic violence offences)
- 68% used reassault data
- Young males
- 75% conducted in North America
- 59% reported a significant reduction in violence



Conclusions

- **There is some evidence that interventions to reduce violence are successful in the long term**
- **Future research should aim to measure longer-term outcomes particularly in**
 - Pharmacological studies
 - Studies including non-offenders



Further information

- A copy of the full report is in press with the HTA monograph series and will be available online by the end of the year
- If you would like further information then please contact me on:
 - E-mail: Julieth@liv.ac.uk
 - Phone: 0044 151 795 5441
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