

Intermediate outcome criteria and evaluation of suicide prevention programmes: A review in progress

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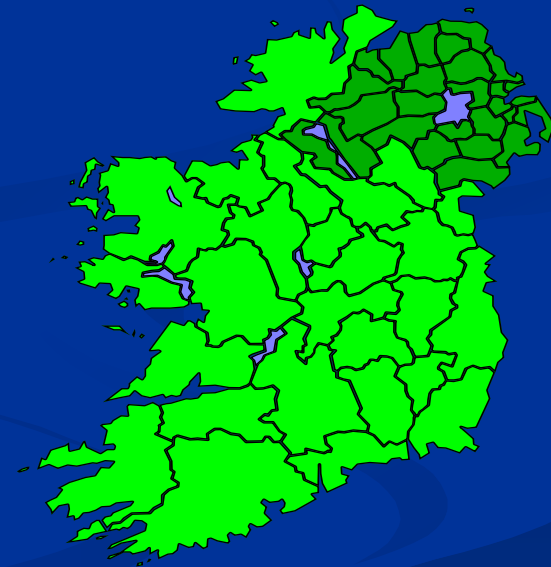
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& OSPI-Europe Consortium
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Role of the National Suicide Research Foundation (NSRF) in OSPI- Europe

2 primary areas of responsibility:

1. Review of intermediate outcome criteria included in the evaluation of suicide prevention programmes and recommend validated measures and instruments
2. Implementation of the OSPI 5-level intervention programme in a selected intervention region (County Limerick) in Ireland



Background

Evaluating suicide prevention initiatives

- To date, no controlled study has demonstrated the efficacy of a single intervention to reduce suicide
- Primary outcomes:
 - Suicide
 - Suicidal behaviour
 - Suicidal ideation
 - Mood disorders

Barriers to traditional RCTs in suicide prevention research

- Insufficient sample sizes
(Gunnell & Frankel, 1994)
- Lack of appropriate controls
(Goldney, 2005)
- Low specificity of any known risk-factor
(Cuijpers, 2003).

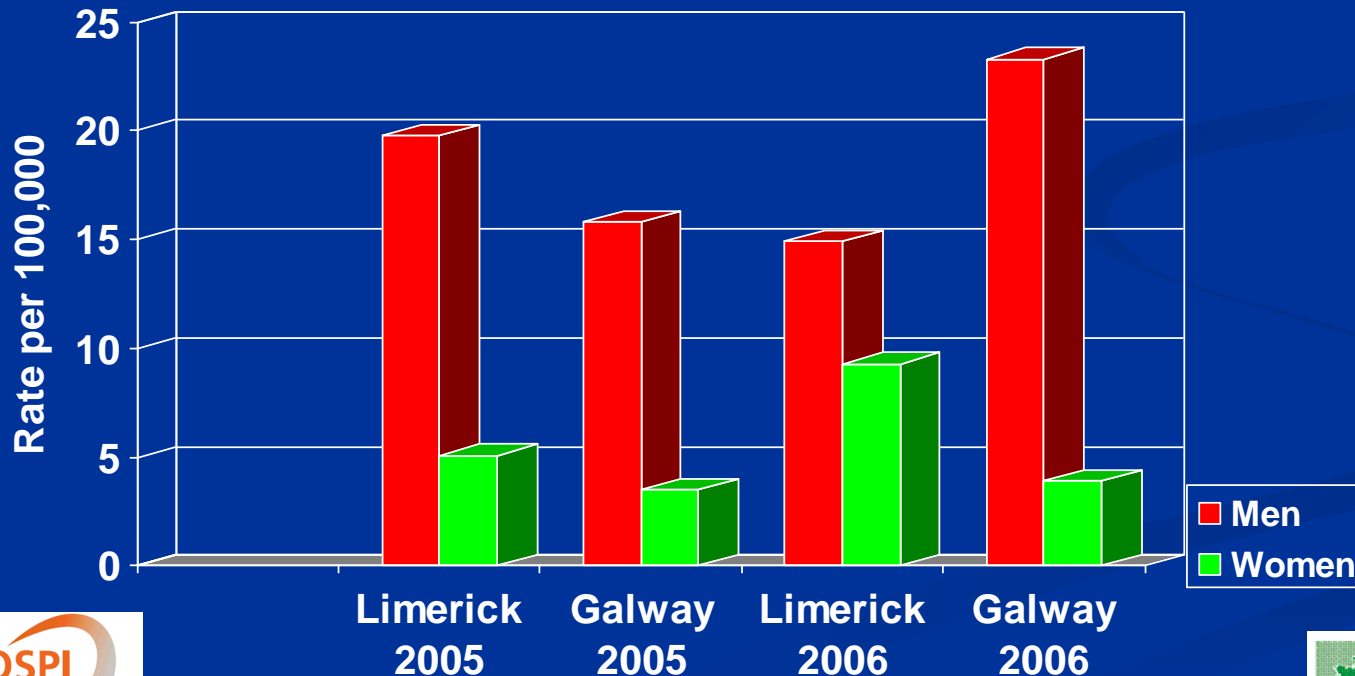
Barriers to traditional RCTs in suicide prevention research contd.

- Suicide a statistically rare event
 - Difficult to show meaningful change in rates over typically short intervention period
 - The smaller the population under observation, the higher the reduction in suicidality needs to be in order to reach statistical significance
 - Low base rate of suicide warrants sample sizes of a magnitude often beyond the limitations of funding if a significant reduction in rates is to be observed (Goldney, 2000; Lewis et al., 1997)

Suicide a statistically rare event

- Example Irish OSPI region:
 - Intervention region (Co. Limerick)
 - Control region (Co. Galway)

	Limerick 2005	Galway 2005	Limerick 2006	Galway 2006
Male	17	22	10	19
Female	7	7	6	3



What do we mean by intermediate outcome criteria?

- Proximal or short term effect indicators of single interventions which are directly linked to the operational goals and content of the interventions

E.g. Improved awareness, knowledge, confidence, attitude change, referral rates, prescription of antidepressants etc.

Methodology

- Keyword based search of commonly used electronic bibliographic databases: PubMed, Psychinfo and ScienceDirect
- Studies which evaluated suicide prevention programmes utilising intermediate outcome criteria either singularly or in combination with primary outcome criteria (i.e. suicidal acts or changes in measures of psychopathology) were included in the review (1980-2010)

Methodology contd.

- Quality assessment of selected papers/reports
- Key focus on psychometric properties of instruments
- Criteria: Number of items, languages, content validity, construct validity, test-retest reliability, internal consistency
- Key focus on instruments used to measure change, not only descriptive

Results

- 56 papers included in review
- Intermediate outcome criteria most frequently used:
Measures related to
 - Knowledge
 - Attitude toward suicide and related factors
 - Attitude towards help-seeking
 - Confidence when dealing with suicidal patients
 - Skills
 - Prescription rates
 - Referral patterns/rates

Results contd.

Scales/questionnaires meeting all criteria:

- Depression Stigma Scale (DSS, Griffiths et al, 2004, 18 items)
- Attitudes towards seeking professional psychological help (short form) (ATSPPH-SF) Fischer & Faring, 1995, 10 items)
- Suicide intervention response inventory II (SIRI-II, Neimeyer & Bonnelle, 1997, 25 items)

Results contd.

Example of training effects on outcomes of a Depression Stigma Scale

2 subscales

- Personal depression stigma
- Perceived depression stigma
 - Higher scores indicate more stigmatising attitude
- RCT to measure change in stigmatising attitudes towards depression following a web-based educational intervention
 - 525 participants
 - 2 education packages evaluated
- Main effect for interventions on both subscales compared to controls
 - Scores on personal subscale reduced following both interventions
- Additional effects:
 - Small effect size
 - Sensitivity to detect differences between interventions

(Griffiths et al., 2004, B.J. Psychiatry)

Results contd.

Example of training effects on attitudes towards help seeking behaviour

- Recent research supporting the validity and reliability of Attitudes Towards Seeking Professional Psychological Help (ATSPPH) in both clinical and non-clinical (student) population
(Elhai et al., 2008, Psychiatry Research)
- Controlled evaluation of a video intervention designed according to the principles of cognitive learning theory to increase positive attitude to mental health treatment
(Buckley et al., 2005)
 - Significant positive change in attitude over time compared with participants in the control condition

Results contd.

Example of training effects on measures of skills: SIRI-II

- Extensive evidence supporting the validity and reliability of the Suicide Intervention Response Inventory II (Neimeyer & Bonnelle, 1997)
- Evaluation of a multidisciplinary suicide assessment course for front-line health workers

(Fenwick et al., 2004)

- Workshop and lecture format training programmes were assessed
- Scores on SIRI-II significantly decreased (lower scores indicate “more correct” responses) following both training formats
- Change in SIRI-II scores maintained at 2-month follow up
- Also differences between groups
 - Lecture scores significantly better than scores following Workshop

	Time1 Pre-training Mean (SD)	Time 2 Post-training Mean (SD)	Time 3 2 months later Mean (SD)
Workshop	55.90 (19.60)	54.39 (21.21)	51.47 (5.72)
Lecture	51.36 (14.76)	49.28 (12.25)	46.92 (12.43)

Results contd.

Quality assessment of included studies:

- Most studies included relatively small number of participants in the development of the measures
- No questionnaires were identified that have been translated and well-validated cross-culturally.
- The lack of test-retest reliability figures for most of the measures particularly worrying, given the necessity for such measures in the evaluation of suicide prevention programmes.

Conclusions

- ❖ Considering the limitations of primary outcome criteria used in suicide prevention research, it is recommended to include intermediate outcome criteria on a structural basis
- ❖ However, research into intermediate outcome criteria related to suicide prevention is fairly new and exploratory
- ❖ Only a minority of scales/questionnaires developed to assess intermediate outcome criteria meet the required psychometric standard for evaluation purposes
- ❖ A major challenge for further research into the evaluation of suicide prevention programmes is to investigate the relationship between intermediate and primary outcome criteria

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