The Australian Rural Mental Health Study

David Perkins on behalf of the ARMHS team
Acknowledgements

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Assumptions about rural mental health

• Rural MH worse, (male) suicide higher
• Access to comprehensive, continuous, quality services worse
• Rural adversity leads to mental health problems – rural residents are tough
• Metro data is good enough for rural residents
• Good rural health data is too hard to get
• Rural research(ers) is(are) not up to the job
Tibooburra
...a cohort study

• Aims
• Population
• Structure of study
• Early results
To read the protocol....

Original Article

Mental health and well-being within rural communities: The Australian Rural Mental Health Study

Brian J. Kelly,¹,² Helen J. Stain,¹,² Clare Coleman,¹ David Perkins,³ Lyn Fragar,⁴ Jeffrey Fuller,⁵ Terry J. Lewin,²,⁶ David Lyle,³ Vaughan J. Carr,²,⁶,⁷ Jacqueline M. Wilson¹ and John R. Beard⁵
Aims

1. Investigate determinants and predictors of common mental health disorders in rural and remote communities with particular reference to individual, household, community and environmental factors.

2. Identify patterns and determinants of service use.

3. Identify factors contributing to geographical variability in mental health.

4. Provide new knowledge to meet current and changing service needs.
Population

- Community sample rural and remote NSW
- Response rate 27%
- 2639 adults, 1879 households
- 28% remote/very remote
- Mean age 55
- 59% female
- 75% married, DF
Structure of study

• Surveys at baseline, 12 months, 3 years, and 5 years
• CIDI interviews of sub-sample selected using K10 scores
• 1000 genetic samples (saliva) in storage
• Similar questions to NSMHW 2007 to permit comparisons
• Environmental data such as matched drought declarations
Study domains

- Demographics
- MH and wellbeing
- Mental disorder
- Substance use
- Physical symptoms and physical illness
- Functioning and disability
- Health service use
- Factors associated with mental health – individual, family community
- Parental reports for children under 18
Review Article

Using cohort studies to investigate rural and remote mental health

Kerry J. Inder,1,2 Helen Berry1,3,4 and Brian J. Kelly1,2
Cohorts 101

• Cohorts permit study of individual change over time

• Relate exposure to outcomes

• Examine environmental and social capital issues

• Multi-level individual, household, community, region issue

• Research capacity building employees and students
Early results
Determinants of mental health and well-being within rural and remote communities

Brian J. Kelly · Terry J. Lewin · Helen J. Stain · Clare Coleman · Michael Fitzgerald · David Perkins · Vaughan J. Carr · Lyn Fragar · Jeffrey Fuller · David Lyle · John R. Beard
How do individual and contextual factors influence mh&w

- **Hypothesis** – Factors like remoteness and environmental adversity would have an impact on mh&w after adjusting for individual dispositional characteristics and moderating factors (e.g. social support, social connectedness, perceptions of community)

- **MV analysis [baseline data]**
  - Major contributing variables are individual (trait neuroticism and marital status), recent adverse events, and social support.
  - No additional effects for district variables (drought, regional socio-economic indicator, population change).

- **Similar findings** for K10 + Health and Welfare combined variable or K10 alone.

- **So what?** – focus on individual variables, adverse events and social support
You’ve got to have friends: the predictive value of social integration and support in suicidal ideation among rural communities

Tonelle E. Handley · Kerry J. Inder · Brian J. Kelly · John R. Attia · Terry J. Lewin · Michael N. Fitzgerald · Frances J. Kay-Lambkin

Contributors to suicidality in rural communities: beyond the effects of depression


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Questions on suicide

- What is the role of social integration and support in the course of suicidal ideation in rural remote population? [baseline and 12month]

- SI younger, unemployed and poor – high K10, high neuroticism, & high alcohol use

- SI associated with lower perceived availability of social support, less active engagement in community, lower sense of belonging, higher distress wrt social infrastructure and health service access

- We found no variation in SI by remoteness

- Predictors of SI at 12 months
  - SI at baseline
  - Current psych distress/mental disorder
  - Poor availability of social support
More questions on suicide

• What is the prevalence of suicidal thoughts and behaviors among individuals with and without a history of depressive illness?

• 41% of participants with lifetime SI and 34% with a lifetime suicide event had no history of depression

• After controlling for lifetime depression SI was predicted by younger age, being currently unmarried, and lifetime anxiety or PTSD

• Lifetime suicide attempts were predicted by depression, lifetime anxiety, drug use disorders and younger age. Being married and employed were significant protective factors.

• The presence of co-morbid depression and PTSD significantly increased the odds of reporting a suicide attempt.

• Perhaps depression and suicide should be understood as independent constructs and this might imply a “broader” approach to assessment and prevention of suicide
The psychological impact of chronic environmental adversity: Responding to prolonged drought

Helen J. Stain a,⁎, Brian Kelly b, Vaughan J. Carr c,d, Terry J. Lewin b, Michael Fitzgerald e, Lyn Fragar f
Environmental adversity

• What is the impact of environmental adversity (exposure to prolonged drought) on (1) worry about drought impact and (2) psychological distress?

• Drought related worry dependent pragmatic factors such as impact on livelihood. High levels of drought related worry associated with married, living and working on a farm, connection with land and association with place.

• Greatest psychological distress associated with individual factors, loss of community facilities, and social connectedness.

• Psychological distress and drought related worry are different. We are particularly interested in the possible role of personal hopefulness in moderating drought related worry.
Original Article

Distress among rural residents: Does employment and occupation make a difference?

Lyn Fragar,¹ Helen J. Stain,²,³ David Perkins,⁴ Brian Kelly,²,³ Jeffrey Fuller,⁵ Clare Coleman,² Terry J. Lewin³ and Jacqueline M. Wilson²
What about employment and occupation?

- What is the relationship between mental health and wellbeing with employment and occupational status? [baseline]

- 57% employed, 30% retired, 6% permanently unable to work, 2% unemployed.

- Highest rates of “caseness” (likely mental disorder):
  - 57% permanently unable to work
  - 69% unemployed
  - 34% farmers
  - 29% health workers

- Do our programs and policies target those with high needs or those with strong advocates?
ORIGINAL ARTICLE

Unintentional Injury, Psychological Distress and Depressive Symptoms: Is There an Association for Rural Australians?

Lyn Fragar, MPH;1 Kerry J. Inder, PhD;2,3 Brian J. Kelly, PhD;2,3,4 Clare Coleman, PhD;4 David Perkins, PhD;5 & Terry J. Lewin, BCom2,6
Unintentional Injury

• Is there a relationship between unintentional injury and mental health?

• Pre-injury depression independently related to domestic/public injury

• Domestic/public injury 2x risk of current depressive symptoms

• Male gender significant association with high risk (HR) injury

• HR injury significant association with current psychological distress and high alcohol use

• Examine depression in management of injury, consider injury risk in management of depression, alcohol increases risk of injury amongst those with depressive illness, screen for MH problems following traumatic injury
Alcohol

• What are individual and district level predictors of alcohol use?

• Gender, age, marital status & personality make the largest contribution to at risk alcohol use

• Five + adverse events in last 12 months is independently associated with at risk alcohol use (AOR 3.3)

• Controlling for individual level factors at risk alcohol use is associated with smaller proportion of time living in a rural district (AOR 1.7)

• Rural exposure and district level alcohol use are not associated with lifetime consequences of alcohol use

• Focus attention towards rural residents with multiple recent adverse life events and people who have spent less time in rural areas.
Service use

• What is the impact of remoteness on service use for mental health problems in this sample? How does it compare with urban residents? What is the relationship between self-reported service use and need?

• Contacts with psychologists and psychiatrists similar to urban, GP contacts higher 12% vs 8%

• No partner, poor finances, severity of mental health problems, more adverse events predict help seeking

• There was a dose response relationship between severity of mh problems and help seeking (prof and non-prof)

• We estimate that 47% of those with high need for services had no contact with mental health professionals
Final comments

• Early days and work in progress

• Great example of rural teamwork

• Let us know what your questions are and we may be able to address them

• Contacts