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Improving the mental health of drought affected communities: an Australian model

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Abstract

In recent years there has been increasing recognition of the social impact of drought on rural communities. This paper provides an overview of a major mental health program developed in response to persistent severe drought and longer term social and economic restructuring in New South Wales agriculture. Led by government and incorporating close collaboration with rural community agencies and services, the program’s design and implementation was informed by existing evidence regarding mental health promotion, illness prevention, early intervention models, disaster management and a series of core project principles and goals based on community development practice. Improvements in mental health literacy and service collaboration and coordination suggest lessons learnt from the program will have applicability to future projects that aim to address mental health needs and promote the capacity of rural communities to adapt to the continuing impacts of future droughts and longer term climate change.

Key words

Mental health, service delivery, rural, community development, drought


Introduction

In late 2007 much of south-eastern Australia remained affected by the worst drought in 100 years, placing severe strain on farming communities and rural and regional areas. In the context of a brief overview of mental health consequences of drought, this paper outlines the background to the development of a large scale government drought mental health program in Australia to support districts affected by drought, based upon evidence regarding mental health promotion, illness prevention and early intervention and disaster response frameworks.

Drought – what does it mean for mental health?

As detailed in a recent national report, “Australia has one of the most variable climates in the world” (Hennessy et al., 2008, p. 3). The notion of drought is complex and can be defined in a number of ways, including meteorological (low rainfall), agricultural (short-term dryness in soil layers during critical growing times), hydrological (reduced stream-flow, groundwater, lake and dam levels) socio-economic (encompassing the effects of the former types on economic goods and human well-being) (Hennessy et al., 2008), and environmental (including dust storms, bushfires and general land degradation). The socio-economic outcomes of drought have the greatest direct impact on mental health and wellbeing by heightening vulnerability and adverse outcomes, particularly where changes to the vitality of the natural landscape are profound (Albrecht et al., 2007).
Agricultural industries and the communities that rely on them are perhaps the most vulnerable to drought effects. During periods of drought farm gross domestic product and farm incomes fall, and dependence on off-farm income increases. (Lu and Hedley, 2004, p. 2), and a decline in the number of farm families and the number of people employed in agriculture occurs (Australian Bureau of Statistics, 2008).

As farm income decreases and on and off farm workloads increase, social isolation rises, strongly influenced by reduced time availability and rising transport costs. Workers and contractors face losing employment and the need to consider relocation (Alston and Kent, 2004). This contributes to the deterioration in rural community social structures, networks and infrastructure already underway as a result of longer term agricultural restructuring noted in many communities (Crockett, 2002) which has seen the number of farms in Australia decrease (Australian Bureau of Statistics, 2008)\(^1\). Furthermore, these changes adversely affect the ability of these communities to adapt effectively to these changes, as social networks and infrastructure is lost; as one major national report notes, “a community’s capacity to provide support is at its weakest when need is greatest” (Department of Transport and Regional Services, 2005, p. 5).

In this context, and given the established literature concerning the role of socio-economic factors on mental health in general (Taylor, Page, Morrell, Harrison & Carter, 2005; Saxena, Thornicroft, Knapp & Whiteford, 2007) and data from rural communities specifically (Turvey, Stromquist, Kelly, Zwerling & Merchant, 2002; Smith, Humphreys

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\(^1\) Note that the definition of rural holding in 1961, “land of an acre or more in extent used in the production of agriculture, raising of livestock and production of livestock” differs from the 2008 definition, “a production entity producing a minimum gross agricultural income of $5,000”.

& Wilson, 2008), it is reasonable to assume a heightened vulnerability to mental health problems and increasing mental health needs in the setting of protracted drought in already resource poor rural communities.

This vulnerability also needs to be considered in the context of an existing body of literature in Australia and internationally concerning the health risks in agriculture. For example, a range of environmental, climatic, economic and social stressors may impact on farmers’ sense of wellbeing and mental health (Fragar, Henderson, Morton, & Pollock, 2007), and the vulnerability of farmers to mental illness has already been noted by numerous researchers (Fraser et al., 2005, p. 340). Likewise farmers and farm workers, especially males, are reported to have higher rates of suicide than age matched males in rural areas (Page and Fragar, 2002). This international trend reflects multifactorial influences including demographic changes, economic stresses, political demands (New South Wales Farmers Association, 2006), age (Wilkinson and Gunnell, 2000), gender (Dudley et al., 1997), health literacy (Caldwell, Jorm, Know, Braddock & Britt, 2004), terms of trade (Page and Fragar, 2002) and cultural factors, particularly self reliance (Sawyer, Gale & Lambert, 2001). Other vulnerabilities include the risk of injury and farm safety, and it is not known how financial pressures and stress may influence these health risks for families in an Australian context.

All these events occur against a backdrop of barriers to ready access to health services in rural and remote areas noted nationally and internationally (Smith et al., 2008, Nelson and Park, 2006). Lower incomes create financial barriers and significant distances
between their place of residence and the health services create geographic barriers (Sweeney and Kisely, 2003). Further barriers are created by low knowledge of available services (Wrigley, Jackson, Judd & Komiti, 2005), by cultural factors such as the perceived shame or stigma associated with mental health problems (a form of social exclusion often arising from a lack of knowledge about mental health problems in the wider community) (Judd et al., 2006), by the mal-distribution of health clinicians in between rural and urban areas (Commonwealth of Australia, 2008), and by the application of service models that may not address the resource limitations, geography and social characteristics of rural communities (Smith et al., 2008, Rost, Fortney, Fischer & Smith, 2002).

Therefore drought occurs in the context of existing challenges in rural areas and agricultural industries, and the known socio-economic disadvantage of many rural areas, and difficulties of providing services to widely dispersed and diverse populations as occur in this region. This sets the scene for the challenges faced in mounting a program of assistance to drought affected communities.

**What is required to address these needs?**

It is apparent that the potential mental health consequences of drought amidst longer term structural changes of rural communities require attention. This needs to occur alongside the practical assistance individuals and communities may require to manage the impact of drought and to adapt to longer term drying in Australia and on other continents.
Addressing these needs is complex when the regions affected are frequently poorly resourced with health services and their populations widely dispersed and diverse.

Previous work across rural Australia has identified the role of financial pressures and financial concerns in the mental health of farmers, including the perception of these as the primary cause of distress by farmers themselves (who tend not to identify these as mental health concerns) (Fuller, Edwards, Procter & Moss, 2000), and the important role played by agencies working to assist farmers in financial aspects of agriculture business as “front line” and trusted source of advice and potential linkages for improving pathways to more formal mental health care (Fuller and Broadbent, 2006). Investigation of interactions among rural community services in rural areas highlights the key role played by financial agencies as key contact points in the trajectory of mental health problems in farming populations (Fuller et al., 2007, p. 2009).

Earlier work has highlighted the need for mental health services in rural areas (Wakerman et al., 2006) to be operating within a model that incorporates three key criteria. First, service delivery must actively involve existing trusted ‘front-line’ agencies and services, the staff of which are appropriately trained to discuss mental health issues with their clients – that is, it is a community based approach. Second, these people must be supported by accessible secondary level health and welfare services to ensure that early intervention for emerging and established mental health problems is rapidly and effectively obtained. Third, ‘mental health’ messages must be delivered in an acceptable
way utilising whole of community approaches that ensure particular individuals are not ‘targeted’.

It follows that a multi pronged approach to mental health challenges emerging in the context of drought is required. Such intervention should address the needs of front-line workers, increase the understanding of health workers of the barriers to care for farmers and of strategies to address this, and promote a system of care that more closely links the agricultural and health sectors. This enables the promotion of practical responses to drought (particularly effective and active problem solving in the face of the dilemmas at both personal and community levels) and ensures that mental health messages are integrated into an overall drought management strategy. This can involve access to financial guidance, advice regarding adaptation of practices and water management, consideration of longer term implications for land management, and for some, the financial and practical assistance needed to make key decisions about a future in farming.

Overall, this broad based model incorporates community promotion, targeted early intervention programs using existing front line agencies, and building responsiveness of the health service sector. This occurs in the context of local strategic planning focussing on mental health needs, informed by knowledge of population needs and characteristics and existing evidence regarding effective early intervention for mental health problems (Australian Health Ministers, 2003).

**Principles into practice: developing a multiregional drought mental health strategy**
This section of the paper outlines the elements of the New South Wales (NSW) State Government Mental Health Agency funded ‘Drought Mental Health Assistance Package’ (DHMAP), implemented in 2007.

The program was coordinated in a partnership led by a rurally based mental health academic unit, the NSW Centre for Rural and Remote Mental Health (University of Newcastle). This Centre is funded through government to provide academic leadership in innovative service development for rural areas, and rurally based mental health service leaders/senior managers (www.crrmh.com.au). The DMHAP was developed and overseen by a management group comprising representatives of farming organizations, community welfare services, health services and the CRRMH, including the Australian Centre for Agricultural Health and Safety, state government Department of Primary Industries, Rural Financial Counselling organisations, and the rural Mental Health Services. All agencies involved contributed leadership and advice on the components, implementation, and evaluation of the program, including a communication and media strategy.

The program was conducted in the context of increasing political and community concern regarding the mental health impacts of drought (Fragar, Kelly, Peters, Henderson & Tonna, 2008). CRRMH, funded by government, was in a position to inform and lead the implementation of this program. The key involvement and leadership of many agencies (such as the NSW Farmers Association) at the state-wide level ensured key principles were implemented at community level where locally-based representatives collaborated
in a similar cross-agency networks to implement the program, confident in the support of the senior leaders of their respective organisations. Approximately $1 M funding directed to the Drought Mental Health Assistance Program was augmented by in-kind contributions of time and expertise from the collaborating agencies and organisations, including CRRMH and the rural Area Health Services.

The multi-component strategy incorporated existing evidence regarding programs of mental health promotion (World Health Organisation, 2002; Australian Health Ministers, 2003; Gerrard, Kulig, & Nowatzki, 2006) including:

- Taking an enabling and supportive approach - allowing individuals families and communities to attain proper level of functioning through the provision of information, specialist services and resources;
- Establishing planning and management arrangements accepted and understood by all the agencies involved and the community;
- Adopting a community development approach, which is most effective when conducted at the local level with the active participation of the affected community and a maximal reliance of local capacities and expertise;
- Ensuring recovery agencies and personnel are properly prepared for their role through appropriate training programs; and
- Identifying strategies to promote resilience among communities (Gerrard et al., 2006).

The core components of the Drought Mental Health Assistance Program were as follows.
Mental Health Promotion:

The mental health promotional component comprised three main initiatives: 1) mental health first aid training, 2) community forums and 3) the development of resource booklets.

1) Mental Health First Aid training is a two-day workshop designed to build mental health knowledge and reduce stigma (Sartore et al., 2008). In DMHAP the training was tailored to rural communities and the farming sector. Networks of key rural organisations assisted target the delivery to front-line agencies working with farming families and community leaders. Combining mental health education with ongoing support for the groups providing first point of contact for farmers in distress enabled trusted local people working in the agricultural and finance sectors to be talking about mental health, and to have an ability to respond to mental health concerns in their local community through access to the level of care appropriate to the needs.

DMHAP’s fifty Mental Health First Aid training workshops were attended by over 800 people from 118 towns. Thirty-five percent (35%) of the attendees lived on a farm, with the majority of the remainder residing in rural communities with fewer than 5000 residents. Results from participant surveys (Centre for Rural and Remote Mental Health, 2008) identified changes consistent with previously reported findings (Sartore et al, 2008) which demonstrated that the Mental Health First Aid training was effective in increasing mental health knowledge, reducing stigma, and increasing
participants’ willingness to help those around them, suggesting increased confidence and capacity to provide early intervention for mental health problems.

2) Seventeen (17) community mental health meetings were implemented, delivered in collaboration with local health providers and leaders in farming organizations. These were designed to increase understanding of common mental health needs and responses in adversity, to identify local service options and pathways to care, and to support the prevention of mental health problems by building social connectedness and support. Reducing the stigma of mental health problems was addressed by presenting information about mental health intermixed with drought and other rural messages. This avoided any pressure for people to declare their thought or feelings or feel singled out in any way, as well as promoted access to information, resources and advice for farming families which supported them to actively adapt and manage the demands of drought as effectively as possible.

Each forum was held, organised and promoted by the local community and supported by the agencies involved in the implementing the program. Local speakers, usually including a farmer who had experience with a mental health problem – most commonly depression – and key agricultural agency and health staff provided information about mental illness, how to stay healthy, and local pathways to care. Mental health resource education materials tailored to the farming sector were also distributed to attendees. These aimed to deliver a broad range of information for a variety of ages, with information on depression, various “helplines”, mood disorders,
alcohol and other drug use, health promotion and contact details for a dedicated Rural Mental Health Support telephone service. Overall, these events attracted over 1900 people, 64% of whom had not attended a mental health event previously. Over half those attending were male and 61% lived on farms, indicating the capacity to target high priority populations.

3) Designed in response to specific information requests from farming and community organisations, the resource booklet, ‘Tackling tough times’ was tailored for rural health and agricultural service providers, to provide brief information and guidance for rural service providers to assist them identify the range of services available for clients seeking agricultural, financial and mental health assistance, to provide a brief description of these agencies and information about where to go for help locally.

*Early intervention:*

Early intervention in mental health refers to “interventions that target people displaying the early signs and symptoms of a mental health problem or mental disorder, and people developing or experiencing a first episode of a mental disorder...” (Spiteri, 2001, p. 10). DMHAP 2007 incorporated three strategies to improve early intervention in drought affected communities, 1) service network planning workshops, 2) the appointment of community based mental health liaison workers, and 3) a rural telephone support line.

1) The service network planning workshops were developed to delineate pathways to care, link agricultural front-line workers with the health service sector and build
on the evidence emerging regarding the role of agricultural agencies, the need for local referral pathways and for increased support for these agencies in addressing mental health needs. This approach relied on local interagency planning workshops drawing on the priorities for evidence-based mental health action identified within the NSW Farmers Mental Health Network’s “Blueprint” (Fragar et al., 2008). In this context the local workshops were designed to achieve two main outcomes. The first was to build on existing mental health promotion interventions in ways that would raise confidence and skills in responding to mental health problems by bringing rural health, agricultural and other service workers together to enhance the shared knowledge and confidence of service providers in working with farmers, small businesses, rural communities and each other. The second was to form a local network that would improve mental health care in their rural community. This would be achieved by identifying local pathways to care as a result of improved knowledge of and coordination of local services, including intersectoral networks of agencies working together on “mental health plans” for farming communities.

To improve mental health in the context of drought responsiveness, 15 service networks were either established or expanded through DMHAP in communities ranging in population size from 700 to 30,000 people. Each involved frontline agencies in agriculture, health and community based services and groups such as local government in some instances. The active participation of local health services in these networks and the range of prevention and health promotion
programs conducted through DMHAP served to increase visibility, acceptability and rapport of mental health clinicians with those agencies and to encourage health service use when needed. According to participant feedback, service network members valued receiving information about farming and mental health and about other service providers and the opportunity to network (CRRMH, 2008).

2) Six (6), dedicated, full-time drought mental health workers were employed by the rural Area Health Services to facilitate the programs identified above, and lead their local implementation. Their role also incorporated the tasks of engaging the broader health sector in the community programs and service planning for future needs, identifying local community needs and translating these back to program management, alongside the critical liaison tasks with local interagency networks and agricultural organizations and mental health services. Additionally, they worked with health services to improve responsiveness to emerging mental health needs. This was achieved by increasing the understanding health services have of the drought’s impact on their communities and service adaptations needed to best support those communities. Generally these workers were individuals with both experience of rural communities and especially farming sectors and an understanding of health services and mental health problems. Collectively they achieved over 10,000 direct contacts through community mental health gatherings, service network meetings, Mental Health First Aid workshops, and the
additional events, education and information sessions they attended as part of their role.

3) The telephone based Rural Mental Health Support Line was developed to provide on the spot help in an immediate crisis (including triage to local service providers) or help with referral to local specialist services for those who wanted to talk to someone themselves or if they were worried about a family member or friend. The line also provides advice to service providers regarding local services and is staffed by telephone counselling/support staff trained in mental health triage and rural issues, particularly drought, the pressures of farming, and the roles of other support agencies such as Rural Financial Counsellors and the Department of Primary Industries’ Drought Support Workers. The Rural Mental Health Support Line responded to more than 270 target calls from farmers, farming families and people working in support of drought affected communities during 2007.

**Discussion**

This paper has detailed a multi-component community based strategy that saw 82 community mental health events delivered in over 60 communities ranging in population size from 200 to 35,000 people. DMHAP not only targeted key objectives in mental health promotion, prevention of mental health problems and early intervention, but also aimed to support the capacity of the rural sector to adapt to drought or other environmental adversity and its consequences. The program utilised existing community
resources, links between mental health programs and a broad range of social and community interventions and agencies and connections with programs providing practical assistance to farming communities to undertake adaptation to the tasks they confront, and established many new relationships.

In doing so, the strategy has successfully targeted mental disorders that may arise directly from the impacts of drought and from pre-existing vulnerabilities that have been compounded by drought.

Through achieving these outcomes, DMHAP 2007 has built upon a number of core principles that may be of value to future projects in rural communities, particularly those designed to address the mental health outcomes of climate change.

- The program demonstrated the importance of working with existing community leaders and organizations, propelled by major state wide political support across health and key community organisations. In DMHAP this included health services working with lead agencies within the agricultural and financial sectors, and was achieved at both the state-wide and local level through a management group and local service networks respectively.

- The program aimed to develop specific communication strategies to ensure accurate, consistent and timely information regarding the program and its resources are readily available, and communities were kept informed of new developments. Within DMHAP this was assisted by advice from lead
organizations trusted by local communities on tailored communication strategies to farming sector.

- It was critical to actively encourage processes to identify local needs and provide external supports as needed to address those needs. In DMHAP, the linkages forged between members of the local service networks and the members’ capacity to mobilise the resources of their respective agencies to collaborate in responding to identified needs served to achieve this aim.

- A particularly important element was linking the health and human service sector to the service sector most closely aligned with the population of interest. Vital to the success of this mental health response to drought has been the partnership forged by health services with the agricultural support and financial sectors. This substantially enhanced the program’s capacity to engage with drought affected communities.

- Building on this approach the program chose to focus on mental health education and ongoing support to the relevant service sector rather than primary care per se. In this instance, workers in the agricultural support and finance sectors are trusted local people who provide the first point of contact for farmers in distress. The program of mental health education combined with ongoing support through a local service network and contact with a Drought Support Worker enabled them to be talking about mental health and responding to mental health concerns in their local community, thus assisting people to access the level of care appropriate to their needs. It was important to work alongside the financial and farming sector to assist farming industry, reflecting the multidimensional nature of the problems
faced in drought and the importance of linking mental health-related information with the major programs targeting advice and resources to assist farmers in adapting to the emerging financial and farm management changes.

- Building further on these broad approaches it was evident that the program needed to target high need/priority populations (Fragar et al., 2007). This involved working with all age groups, but gaining an understanding of the needs of potentially highly vulnerable populations for whom specific outreach programs are required. In DMHAP this included seasonal workers, new arrivals to rural areas (and those most isolated from social networks or community resources), those requiring longest periods of financial aid, indicating greatest financial strain; and farmers at the point of foreclosure.

- While DMHAP activities were directly funded by government, all the partner organisations, including the CRRMH and rural Area Health Services, provided significant in-kind contributions of time and expertise to work with the management group and local service networks. The substantial outcomes achieved by the DMHAP program reflect the value of these combined efforts.

- Sustainability of the program is a critical issue and major vulnerability of such large scale activities. This was addressed by working with leaders in the all the relevant service sectors to ensure sustainable commitment to longer term goals of the program, and assisted through the level of government commitment to the program. In DMHAP, the support of the many agencies involved in its implementation has resulted in substantial support for - and commitment to – not only the building of mental health capacity of rural communities over the medium
and longer term, but also to continuing the program during the period of ongoing
drought and in response to the emerging pressures of climate change.

- The program also demonstrated the particular role of a government funded
  academic unit in: linking existing evidence regarding mental health promotion
  strategies and the mental health impact of climate change to program
  development; linking with other major academic activities in drought and climate
  change research; and embedding evaluation strategies and providing infrastructure
  and leadership to ongoing program revision.

Conclusion

Drawing on the principles of prevention, early intervention and community development
activities outlined above, this paper has described the background underpinning the
development of a major Drought Mental Health program during 2007 in a large
Australian region. The program sought to improve mental health literacy and pathways to
care, and was built on extensive stakeholder collaboration that reached well beyond the
traditional health and human support sector to include agricultural support agencies. It is
apparent that the greatest strength of the Drought Mental Health Assistance Package was
the level of political support for the program, the active participation and lead roles
played by over twenty partner organisations from both government and non-government
sectors, assisted with the development of the resources and the design and promotion of
the activities at community level. Their participation in the DMHAP management group
ensured that planning and management arrangements were accepted and understood by
all.
The program also sought to integrate the principles underpinning mental health promotion. Community forums provided information, specialist services and resources to individuals, families and communities to enable them to actively adapt and manage the demands of drought as effectively as possible. Local level capacities and expertise were enhanced through service networks and a program of Mental Health First Aid training that enables the active participation of local community members in talking about mental health and responding to concerns within their community.
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